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**Following the Process of Triathlon Canada Implementing a New Coach Education
Training Program in the Competition-Development Context**

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FOLLOWING THE PROCESS OF TRIATHLON CANADA IMPLEMENTING A
NEW COACH EDUCATION TRAINING PROGRAM IN THE
COMPETITION-DEVELOPMENT CONTEXT

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MASTER'S THESIS

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ABSTRACT

The purpose of the study was to document the process of Triathlon Canada's implementation of a new coach education program in the competition-development context. Two conceptual frameworks were used for the study, the first was the OECD (2007b) qualifications system framework and the second was Jarvis' (2006a) conception of a biography. In part 1, the high performance director was interviewed four times throughout the year to get his perspective on the process of developing and implementing the new program. Through the use of purposeful sampling, all of the coaches' (n=10) actively coaching triathletes in the competition-development context in Canada were interviewed in order to explore the different experiences and qualifications they had, prior to their entry into the program. In part 2, one interview was conducted with the first coach to be evaluated on the Design a Sport Program outcome, and one interview was conducted with each of the two evaluators. The results were divided into two parts; in part 1, it was evident based on the interviews with the high performance director that his unique academic and professional background influenced him to develop a program tailored to the experienced coaches participating in the new program. Furthermore, interviews with the participants' revealed biographies that indicated they were: a) well educated, b) held multiple coaching certifications, c) had rich athletic and coaching experiences, and d) approached learning through diverse means, including formal, non-formal, and informal learning situations. These interviews revealed that the evaluation process was a learning experience for both the coach and the evaluators. Furthermore, there were elements within the new program that seemed to be conducive to lifelong learning. In conclusion, results from the study suggest that it is important to consider the biography of the participants because it will influence how they approach learning. As such, the development and delivery of coach education programs in the competition-development context will likely vary for each national sport federation.

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CHAPTER 1

Introduction

In recent years, there has been a steady increase of published research in coaching science around the world (Gilbert & Trudel, 2004a). Part of this research addresses the education and development of coaches (Gilbert, Côté, & Mallett, 2006; Lyle, 2007; Nash & Collins, 2006). For example, numerous stakeholders of coach education around the world (e.g., national representative bodies responsible for coach education, organizations who design and deliver coach education, researchers, and coaches) have formed the International Council for Coach Education (ICCE) that hosts bi-annual conferences (www.icce.ws), where part of its objectives are to promote and utilize new research in training and competition and publish current research on coaching science in a peer-reviewed journal. In Canada, Trudel (2006) suggests that the development of Canadian coaches is influenced by two major factors. First, there is the transition to the new National Coaches Certification Program (NCCP), which brings a novel approach to preparing coaches by focusing their training and certification within various contexts. The second factor is the introduction of the Long Term Athlete Development model (LTAD). This model provides “a general framework of athlete development with special reference to growth, maturation, and development, trainability, and sport system alignment and integration” (Canadian Sport Centres, p. 13).

There are some authors who suggest that the LTAD model can be used as a framework for developing coaches (Way & O’Leary, 2006; Van Neutegem, 2006). For example, Way and O’Leary suggest “the creation of Long-Term Coach Development (LTCD), which modelled after the LTAD framework, will provide a guide for optimal ‘coach career pathways’” (2006, p. 24). Trudel (2006) disagrees with this suggestion for two main reasons. First, LTAD is based on

children and adolescents physiological growth and development theories while coach education should be based on adult learning theories. Second, LTAD suggests ‘what’ skills (including sport specific skills) and movements to introduce, along with recommendations about ‘when’ to introduce them according to the developmental age of the athletes. However, coaches also need to be competent in the delivery component, or ‘how’ to teach/coach (Trudel, 2006). Therefore, coaches’ development cannot be limited to sport specific knowledge (e.g., the ‘what’).

Considering that coaching is very complex (Bowes & Jones, 2006; Jones & Wallace, 2005; Lyle, 2002) and that coaches learn to coach through a variety of learning situations (Nelson, Cushion, & Potrac, 2006; Trudel, Gilbert, & Werthner, in press; Werthner & Trudel, 2006), there has been an attempt to identify the coaches’ developmental pathways through retrospective interviews (Erickson, Côté, & Fraser-Thomas, 2007; Gilbert et al., 2006; Irwin, Hanton, & Kerwin, 2004; Lemyre & Trudel, 2004). Yet, as far as we know, there is no longitudinal research on how coaches learn. To fill this gap, Dr. Pierre Trudel developed a three-year longitudinal project with Triathlon Canada, the Faculty of Health Science at the University of Ottawa, and the Coaching Association of Canada (CAC). This project, which was based on a lifelong learner perspective and the Organization for Economic Cooperation and Development’s (OECD) qualifications system, consisted of two phases. The purpose of phase one was twofold; first data was collected on the design of the new program to get a better idea about how it has been developed and to follow the process of implementing the program, and secondly was to investigate ‘who’ are the coaches (athletic and coaching experiences, expectations for the program, approaches to learning, etc.) just prior to their participation within the new program. In phase two, the researchers will work with Triathlon Canada and its coaches to identify and

structure the most appropriate learning situations that could be offered to coaches to nurture their development. This master's thesis outlined below is situated in the first phase.

CHAPTER 2

Review of Literature

The review of literature is divided into four sections. The first section consists of an overview of relevant coach learning literature. Research evidence will be presented suggesting that coaches learn through a wide variety of situations, including formal, non-formal, and informal learning situations. The second section of this review looks at selected lifelong learning literature and highlights emerging themes from that body of work. In the third section, an introduction to qualification systems will be discussed, with specific reference to its implications on coach learning and how it may influence coach education training. The fourth and last section discusses the changes in the new NCCP and there is an introduction to Triathlon Canada's new coach education training program situated in the competition-development context.

Coach Learning

In a comprehensive review of coaching literature, Trudel and Gilbert (2006) used Sfard's (1998) metaphors on learning (acquisition and participation) to provide a visual representation (see Figure 1) of how coaches learn. The left side of the model represents how coaches learn through large-scale (LS) coach education programs. Typically, the acquisition metaphor is associated with LS programs due to the fact that there is an emphasis on the presentation of pre-determined content, followed by the acquisition and assessment of that content (Rynne, Mallett, & Tinning, 2006; Trudel & Gilbert, 2006). The acquisition metaphor views the human mind as a vessel to be filled with knowledge and can only be shared, transferred, or applied once the knowledge has been acquired (Sfard, 1998).

Participants within a LS coach education program can generally expect the delivery of the content to be based on a novice to expert continuum (Trudel & Gilbert, 2006), to be generic,

and given in a relatively short period of time (Abraham & Collins, 1998a). Lyle (2007) suggests that there has been a universal assumption that LS coach education actually produces positive outcomes for coaches but there is little evidence to support these assumptions. Furthermore, he points out that there is a lack of research on actual evaluations of LS coach education programs. The only study attempting to see if LS coach education programs have an impact on coaches' knowledge and behaviors was conducted by Gilbert and Trudel (1999). However, these authors had only one participant and made it clear that the research purpose was to test the proposed strategy for evaluation, rather than an actual evaluation of a LS coach education program. While some authors are critical of LS coach education programs (Abraham & Collins, 1998a; Cassidy, Jones, & Potrac, 2004; Jones & Wallace, 2005), there are others who suggest that, for many coaches, these programs are important (Trudel & Gilbert, 2006; Werthner & Trudel, 2006) and can increase coaching efficacy (Campbell & Sullivan, 2005; Malete & Feltz, 2000).

Considering that additional training has been suggested in many reports (Sport Canada, 2002) and research studies (McCallister, Blinde, & Weiss, 2000; Smith & Smoll, 2006; Trudel & Gilbert, 2006) for coaches, very few will disagree over the actual need for training and certification, rather it is the form and process of delivery that seems to be the point of contention (Abraham & Collins, 1998a; McCullick, Belcher, & Schempp, 2006; Rynne et al., 2006). In Canada, the CAC mandated a restructuring of the old NCCP and requested that all National Sport Federations begin the process of converting their coach education programs to a competency-based learning framework (Coaching Association of Canada [CAC], n.d.a). This competency-based approach for coach education seems to move away from a teaching and learning of theoretical principles, towards a more problem-solving approach within sport specific coaching contexts (Jones & Turner, 2006; Savard & Brunelle, 1998). For Trudel and Gilbert

(2006), the competency-based approach is an important and valuable change for the training of coaches, but any training approach has limits and cannot by itself be responsible for all coach learning because some coaches have indicated that they value learning through experience.

Trudel and Gilbert (2006) suggest that learning through experience (see Figure 1) can be divided into two bodies of literature. One body of literature is on experiential-reflective learning and the other is the process of becoming a coach. Experiential-reflective learning has been discussed in the coach education literature by several authors (Cushion, Armour, & Jones, 2003; Gilbert & Trudel, 2001, 2004b, 2006; Irwin et al., 2004; Nelson & Cushion, 2006). Using Schon's model for reflective practitioners, Gilbert and Trudel (2001, 2004b) researched how six model youth sport coaches learn through experience by examining their use of reflection in their day-to-day activities. They found that the coaches used three forms of reflection: reflection-in-action (during the games or practice), reflection-on-action (after games and practices), and retrospective reflection-on-action (at the end of the season). Furthermore, the authors found that when coaches view a situation or issue as problematic, they will start a reflective conversation based on four components: issue setting, strategy generation, experimentation, and evaluation. By going through the process of a reflective conversation, a coach may select options to address the situation or solve the problem and is influenced by his access to peers, stage of learning, issue characteristics, and the environment (Gilbert & Trudel, 2001, 2004b, 2006). Though these studies show evidence of coaches' learning through experience, only one context was studied (youth sport), therefore more studies are needed to show how reflection might be used in different coaching contexts (Trudel & Gilbert, 2006). Furthermore, while Lyle (2007) suggests there is an assumption that learning through reflection should be a fixture in coach education; it is still unclear how it should be incorporated into coach education (Trudel & Gilbert, 2006).

The other body of literature from the participation metaphor is the process of becoming a coach (Trudel & Gilbert, 2006). This process may begin when the coach was still an athlete in a particular sport and became familiar with the sports socio-cultural norms. Consistent with this line of thought, recent research by Gilbert and colleagues (2006) highlights the importance of coaches' prior athletic experience in sport. These authors found from their sample of fifteen coaches (n=5 high school; n=4 community college; and n=6 Division 1 college) that on average, each coach had 13 years of prior athletic experience. Research often suggests that coaches find prior athletic experience to be important because it helps them gain respect from their players (Potrac, Jones, & Armour, 2002; Trudel & Gilbert, 2006). After an athlete retires, there may be a transition from athlete to coach or assistant coach and he/she could become part of a mentor-protégé relationship. Several authors suggest that mentoring is one way for coaches to develop and refine their practices and philosophies (Bloom, Durand-Bush, Schinke, & Salmela, 1998; Cushion, 2006; Saury & Durand, 1998). While the aforementioned authors advocate the use of mentoring in coach education, there is a debate within the research community on whether mentoring for coaches should be imposed on coaches within coach education programs or whether the mentor and protégé should be allowed to mutually choose each other, thereby avoiding situations where mentors are imposed on a coach (Cassidy & Rossi, 2006; Trudel & Gilbert, 2006).

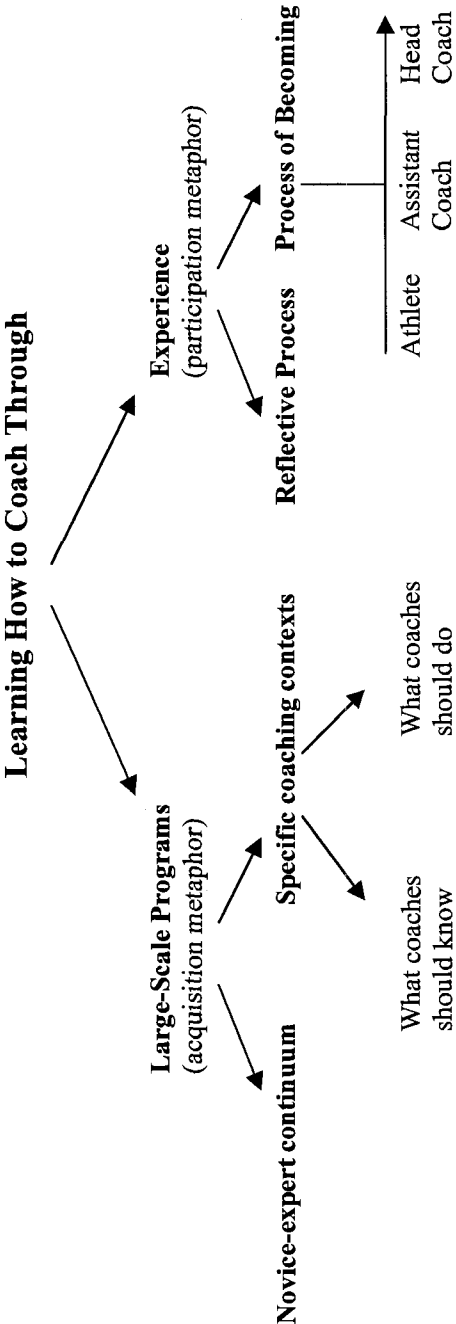


Figure 1. Trudel and Gilbert's (2006) model of how coaches' learn.

8 Since coaching is a social activity, head coaches have to interact regularly with other
9 coaches (Gilbert & Trudel, 2001; Jones, Armour, & Potrac, 2003). Recently, there has been
10 considerable interest in the concept of coaches' communities of practice (Culver & Trudel, 2006,
11 2008a, 2008b; Galipeau & Trudel, 2004; 2005; 2006; Rynne et al., 2006). A community of
12 practice (CoP) is defined as "a group of people who share a common concern, set of problems, or
13 a passion about a topic, and who deepen their knowledge and expertise in this area by interacting
14 on an ongoing basis" (Wenger, McDermott, & Snyder, 2002, p. 4). Yet, some authors suggest
15 that one of the limits of a CoP is that learning is focused within a community and that individual
16 differences may go unaccounted for (Rynne et al., 2006). However, Culver and Trudel (2008a,
17 2008b) disagree, and point out that Wenger devotes an entire section to the individual. They also
18 reiterate that the CoP is only one of many conceptual frameworks in which to conduct coach
19 education research. In addition to misinterpretations on CoP's, other studies have demonstrated
20 that maintaining a healthy coaches' CoP is rare because coaches are often reluctant to share their
21 knowledge and that the presence of a facilitator is almost a prerequisite (Culver & Trudel, 2006;
22 Trudel & Gilbert, 2004). Nevertheless, the CoP framework is another important way for
23 understanding how coaches learn through experience and more research is necessary , given that
24 coaches regard discussions with other coaches as an important part of their professional
25 development (Cassidy & Rossi, 2006).

26 So should there be an effort to combine LS coach education programs (acquisition) with
27 learning through experience (participation)? Trudel and Gilbert (2006) suggest that even asking
28 this question creates a potential debate regarding the feasibility of combining two learning
29 situations that are based on drastically different learning frameworks. Yet some authors suggest
30 there are other conceptualizations that may offer insight into how coaches learn. For instance,

Bowes and Jones (2006) use relational schema and complexity theory from social psychology to form an alternative framework for the activities of coaches. However, their suggestions are largely theoretical, though they highlight the complexity of how coaches learn and the problems coach educators face in trying to provide realistic learning situations. A second conceptualization is offered by Nelson et al. (2006), who suggest that coaches learn through a combination of formal, non-formal, and informal learning. Formal learning is characterized by pre-requisites, assessment, and curricula. Large-scale coach education programs fall within this category, often presenting the coaching process in a mechanistic and generalized manner (Nelson et al., 2006). Non-formal learning occurs outside of formal settings. These activities could include professional development opportunities such as workshops, clinics, or conferences. Informal learning includes the daily activities coaches perform. This can include previous athletic experiences or interactions with other coaches or athletes. Through this conceptualization, these authors suggest that formal and non-formal learning have relatively little impact when compared to informal learning. While coaches may value informal learning, it may be because they are not able to devote time to formal training processes because they are so involved in their coaching practice (Gilbert et al., 2006). Recently, Trudel and colleagues (in press) suggested that while learning is expressed as either formal, non-formal, or informal, it is more appropriate to talk about learning situations that are either formal, non-formal, or informal. These authors suggest that this distinction is important because it is not the learning that is formal, non-formal, or informal, but the situations where learning occurs.

A third conceptualization of how coaches learn is suggested by Werthner and Trudel (2006), utilizing the generic view of learning developed by Moon (2004). However, in order to achieve a greater understanding of the perspectives of Werthner and Trudel, it is important to

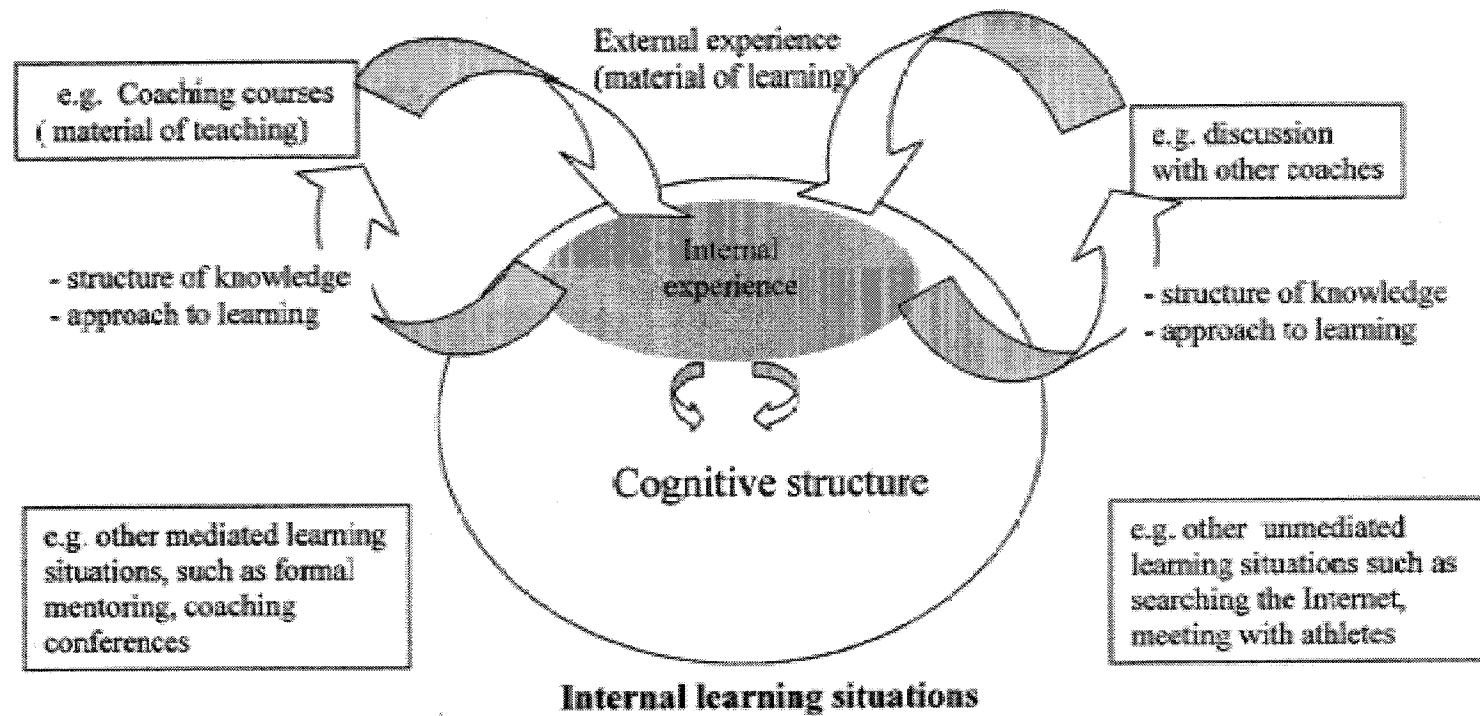
first become familiar with Moon's generic view of learning. Similar to Sfard (1998), Moon uses metaphors (brick wall and a network of ideas and feelings) to clarify the learning process. In the brick wall metaphor, the teaching material is contained within "bricks of knowledge" and is provided to the learner via an instructor to help in piecing together a "brick wall of knowledge" (Moon, 2004, p. 16). Learning within the brick wall metaphor is viewed as impossible without the instructor because it is assumed that the instructor knows how the bricks fit together. Additionally, within this metaphor, learning is difficult to separate from instruction and denies learners the ability to insert their own 'bricks of knowledge' in the form of past experiences or knowledge. Moon's second metaphor is that of a network, and is described as a "vast but flexible network of ideas and feelings with groups of more tightly associated linked ideas/feelings" (2004, p. 16). Unlike the brick wall metaphor, learning can take place without an instructor and therefore, can occur in a variety of settings. Of significance is that the learner's conceptions of knowledge, experiences, and emotions make up what Moon terms the 'cognitive structure'. Recently, Trudel and colleagues (in press) describe Jarvis' (2006a) concept of a biography in a similar manner. The biography "comprises [of] bodily and emotive, as well as cognitive dimensions" (Jarvis, 2006a, p. 73). A person's biography will influence how they view current or new learning situations based on their previous experience. In sum, the cognitive structure/biography acts as a guide to help the learner choose how to approach different learning situations (Jarvis, 2006a; Moon, 2004; Trudel et al., in press).

Werthner and Trudel (2006) applied this generic view of learning to the coaching context and developed a visual representation of how coaches learn (see Figure 2). This model is represented by three components: a) mediated learning situations, b) unmediated learning situations, and c) internal learning situations. A mediated learning situation is one where the

77 learning is directed from an outside source such as an instructor or a well-designed on-line
78 program. In an unmediated learning situation, there is no outside source of direction or 'guide'
79 for learning. It is up to the coach to take responsibility for his learning by creating new learning
80 situations such as searching the internet or networking with other coaches. In an internal learning
81 situation, there is no new information coming from either the mediated or unmediated learning
82 situations. Rather, the coach engages in 'cognitive housekeeping' to reassess the current ideas of
83 his cognitive structure. This model provides a unique approach to conceptualize how coaches can
84 learn as it recognizes the importance of different learning situations and the idiosyncratic nature
85 of the coaches learning pathways. In fact, the model takes into consideration the warnings of
86 Sfard (1998) and Gustavsson (2002) regarding being overly committed to one type of learning.

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Mediated learning situations**Unmediated learning situations**

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Figure 2. Werthner and Trudel's (2006) theoretical perspective of how coaches' learn.

The literature on coach learning suggests that there is a transition from being trained within LS coach education programs based on a novice-expert continuum, towards sport specific and contextualized training programs (CAC n.d.a; Trudel & Gilbert, 2006). Furthermore, there is a lack of evidence demonstrating that LS programs actually produce better coaches (Lyle, 2007; Trudel et al., in press). Additionally, the lack of clear coaching models (Abraham, Collins, & Martindale, 2006; Cushion, Armour, & Jones, 2006) and conceptual frameworks (Bowes & Jones, 2006; Nelson et al., 2006; Werthner & Trudel, 2006) for coach education is highly problematic. Yet, research does suggest that coaches learn through a wide variety of activities and learning situations before and after formal training (Lemyre, Trudel, & Durand-Bush, 2007; Nelson et al. 2006; Werthner & Trudel, 2006; Wright, Trudel, & Culver, 2007). Therefore, a number of authors advocate the inclusion of the lifelong learner perspective in coach education (Côté, 2006; Nash & Collins, 2006; Trudel et al., in press).

Lifelong Learning

Though it can be argued that the notion of lifelong learning has existed since man's beginning (Abukari, 2005), lifelong education and lifelong learning came into prominence as an important educational initiative when it was made a 'master concept' by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1970. The UNESCO commission report (Faure et al., 1972) advocated for the incorporation of lifelong education and learning into the education systems. In 1996, a second UNESCO commission on education (Delors et al., 1996) devoted much of its content to learning throughout the lifespan. During that same year, the Organization for Economic Co-operation and Development (OECD, 1996) also held a conference with the theme of making lifelong learning accessible for all. These international reports (Delors et al., 1996; Faure et al., 1972; OECD, 1996) have helped bring

lifelong learning into the political arena and have aided in shaping educational policy. Furthermore, there is a general agreement among all three reports that learning opportunities should be available throughout one's life, be accessible to all, and be part of the foundation of modern economies and societies (Tuijnman & Bostrom, 2002). However, Tight (1998) suggests that the synthesis of lifelong learning and work are becoming indiscernible and that there is a danger of marginalizing the intrinsic, joyful nature of continued learning. Similarly, Gustavsson (2002) notes that once education links with economic development, there is a shift away from the universality of what lifelong learning can be, towards a trend of employability and human capital.

Due to the increasing link between lifelong learning and the workplace, there is ambiguity within the literature when it comes to a precise definition of lifelong learning (Gustavsson, 2002; Trudel et al., in press). Indeed, there are a variety of statements from a number of different authors on 'what' lifelong learning entails (Abukari, 2005; Bennets, 2001; Deakin-Crick & Wilson, 2005; Gustavsson, 2002; Tuijnman & Bostrom, 2002). For Jarvis (2007), lifelong learning can be conceptualized in two different ways, as either non-vocational lifelong learning or vocational lifelong learning. A non-vocational perspective on lifelong learning could be interpreted as a personal perspective towards learning, relevant to the private sphere of one's life. However, though learning can be something done for oneself, it does not mean it is a private activity; rather, it suggests a personal activity that involves social interactions (Deakin-Crick & Wilson, 2005; Jarvis, 2007). Deakin-Crick and Wilson (2005) suggest that lifelong learning is more than being ready to participate in on-going learning and professional development; rather, it is a form of being open to and aware of opportunities to learn during the natural process of living. Labeled another way, Lambeir (2005) uses the term 'self-managed

learning'. In a world that is constantly changing, he suggests that learners must be able to adapt and change alongside it and filter through vast amounts of incoming information, while managing to select only the most relevant and useful information. Bolhuis (2003) suggests that self-directed learning begins with process-oriented teaching, which involves guiding learners to gradually become responsible for their learning process, focusing on domain specific material, and being aware of the emotional and social process of learning. Therefore, although self-directed learning suggests learning only from an individual perspective, it does not negate the importance of the social process inherent within learning. Moon (2004) suggests that accommodating new learning material is an individual process, but the manner in which it is processed is usually within a social context. In fact, the learning material and the knowledge that is developed are established through social means (Moon, 2004). Learners interacting together can help facilitate and reinforce each other's learning (Moon, 2001).

Jarvis' (2007) second conceptualization of lifelong learning is from a vocational perspective. This type of lifelong learning, which is more relevant to the public sphere of life, also considers instances where employers are the providers of educational programs (recurrent education) to develop and/or maintain their workforce. For instance, Jarvis comments that, "it became easier to think of education as lifelong, since the social structures between different stages in life were lowered and education was no longer limited to certain stages in life" (2007, p. 99). Furthermore, processes had to be developed to recognize prior experiences; such as those within formal, non-formal, and informal learning situations. Therefore, Jarvis (2007) conceptualized a new way of understanding lifelong learning as:

Every opportunity made available by any social institution for, and every process by which, an individual can acquire knowledge, skills, attitudes, values, emotions, beliefs, and senses within a global society. (p. 99)

Jarvis' two definitions of lifelong learning take into consideration an overlap in how an individual may approach learning and is represented in Figure 3. What this figure attempts to demonstrate is that each type of learning may have "functional utility" (p. 100) on the other. In other words, what someone learns in a non-vocational setting may be applied in a vocational setting and vice versa. Jarvis (2007) sums up his perspective on lifelong learning by stating:

As lifelong learning grows in popularity, it might be argued that vocational learning will occupy certain periods in the lifespan and learning in the humanity occupy others. For those knowledge workers, used to learning in the workplace, learning is but an extension of work, but on retirement they might feel the need to continue learning and begin to study non-vocational topics. (p.137)

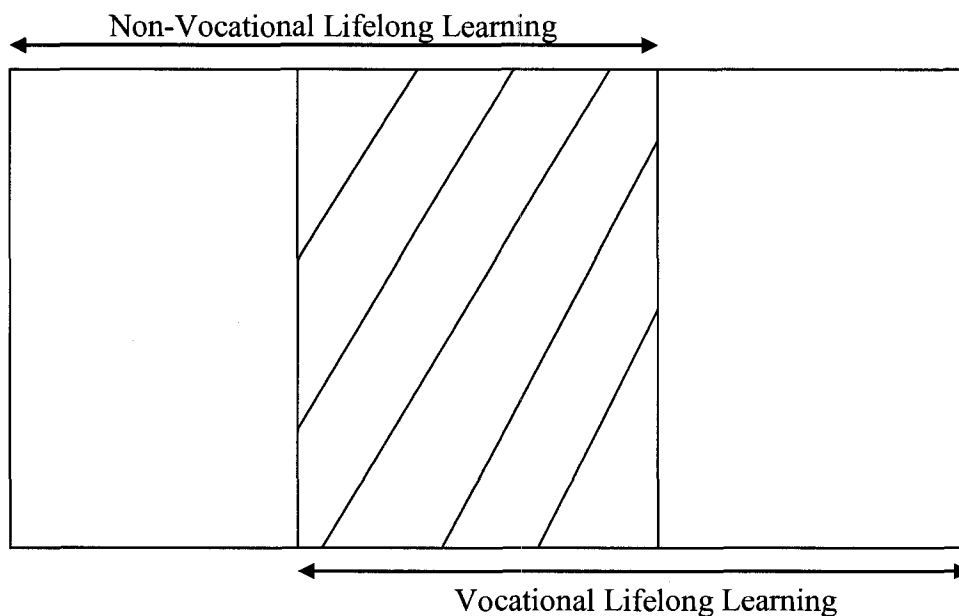


Figure 3. Jarvis' (2007) Categories of lifelong learning.

Some authors propose that learners require a shift in ontological perspective (Barnett, 2004; Bolhuis, 2003; Deakin-Crick & Wilson, 2005; Lambeir, 2005). For instance, Lambeir (2005) calls for “a reorientation of our being” (p.349). Similarly, Barnett (2004) suggests “learning for an unknown future calls, in short, for an ontological turn” (p. 247). For instance, individuals participating in a coach education training program can be considered as part of a “society that is changing so rapidly that many of the traditional educative organizations are not able to keep abreast with the new demands and so individuals are forced to learn outside the education system” (Jarvis, 2006b, p. 17). However, learners are not the only ones who have to consider a shift in ontological perspective, but also the designers of formal learning programs. This is consistent with Trudel and Gilbert (2006) who specified that those in charge of coach education should be mindful that learning inevitably occurs outside of their programs. In sum, a lifelong learner perspective for coach learning puts the focus on the individual, acknowledging that that learning can occur in a variety of situations, such as formal learning situations (e.g., coach education programs), but also non-formal and informal learning situations (Trudel et al., in press).

Qualifications Systems

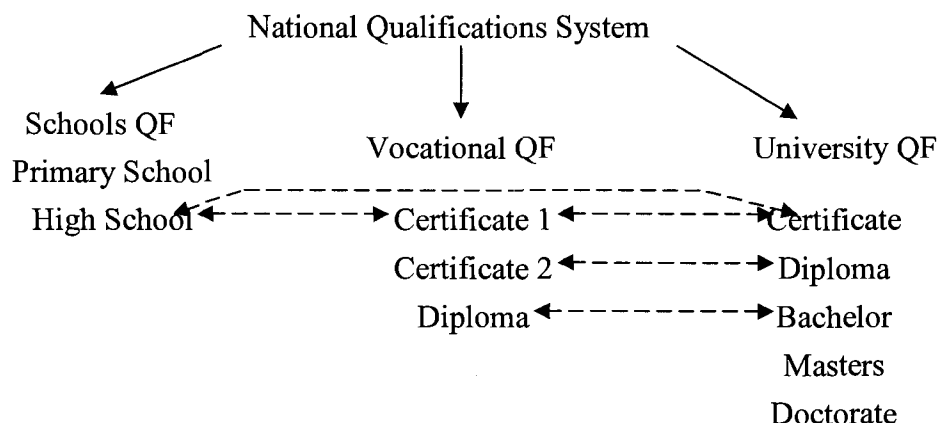
Introducing the concept of lifelong learning impacts how we recognize individuals who are qualified from those who are not. The traditional way of certifying people has to be reconsidered because learners have to acquire new skills as efficiently as possible (OECD, 2007a). For instance, if learners cannot navigate and acquire new skills through the qualification process (e.g., if it is too long or too difficult), then “it may be enough to alienate them [learners] from lifelong learning once and for all” (OECD, 2007a). If we want to study different ways of accrediting people, then we need to explore the links between qualifications systems and lifelong

learning and define some key terms as we did earlier with learning (formal, non-formal, informal, mediated, unmediated, internal, lifelong learning, vocational, non vocational, etc.). A qualification is achieved when “a competent body determines that an individual has learned knowledge, skills, and/or wider competences to specified standards. The standard of learning is confirmed by means of an assessment process or the successful completion of a course of study” (OECD, 2007b, p. 21). A qualification can be achieved through a qualifications system, which is defined as:

All aspects of a country’s activity that result in the recognition of learning. These systems include the means of developing and operationalizing national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition, and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. (OECD, 2007b, p. 22)

For visual representations of an integrated qualifications system and a less integrated qualifications system, see Figure 4. In an integrated qualifications system, there are numerous links that exist between different qualification frameworks. These links allow people to move freely between different qualification frameworks. In a qualification system with less integration, these links do not exist.

Integrated qualifications system:



Less integrated qualifications system:

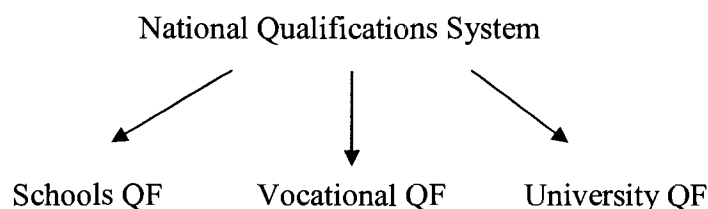


Figure 4. Visual representations of integrated and less integrated qualifications systems inspired by the OECD (2007b).

A qualifications system will include components called qualifications frameworks, which are defined as:

An instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of level descriptors. (OECD, 2007b, p. 22)

For example, a university qualifications framework could begin with a high school diploma or certificate and move through various degrees (bachelor, master's, and doctorate) that can be attained at a university. According to the OECD (2007b), a qualifications system can influence lifelong learning through four different components: a) quantity of learning opportunities, b)

281 quality of learning opportunities, c) equity of access to learning, and d) efficiency of the lifelong
 282 learning process.

283 Due to the lack of research exploring the gaps between qualifications systems and
 284 lifelong learning, the education committee of the OECD launched an ambitious research project
 285 to find any potential links between qualifications systems and lifelong learning. The main aim of
 286 the project was to find out how a national qualifications system may motivate and influence
 287 opportunities to learn. One of the first steps in the project was to analyze and classify the existing
 288 and planned policies from 15 OECD countries into nine general categories. Table 1 presents the
 289 definition of policy response and the nine general policy responses identified by the research
 290 project.

291

Table 1. Policy responses identified by the OECD (2007b)

Policy Response:

Broad categories of policies which are currently being used by countries to address the pressures for change in the qualifications system.

1. Increase flexibility and responsiveness.
 2. Motivate young people to learn.
 3. Link education and work.
 4. Facilitate open access to qualifications.
 5. Diversify assessment process.
 6. Make qualifications progressive.
 7. Make the qualifications system transparent.
 8. Review funding and increase efficiency.
 9. Better manage the qualifications system.
-

292 In addition, the theoretical links between qualifications systems and lifelong learning are termed
 293 ‘mechanisms’. OECD (2007b) has identified 20 mechanisms and each have the ability to
 294 influence a qualifications system. In Table 2, a definition of a mechanism is provided along with
 295 the 20 mechanisms identified by the research project.

Table 2. Mechanisms identified by the OECD (2007b)

Mechanism:

A structural change in a qualifications system and/or a change in the conditions of a qualifications system that results in a change in the extent, quality, distribution, and efficiency of lifelong learning.

1. Communicating returns to learning for qualification.
 2. Recognizing skills for employability.
 3. Establishing qualifications frameworks.
 4. Increasing learner choice in qualifications.
 5. Clarifying learning pathways.
 6. Providing credit transfer.
 7. Increasing flexibility in learning programs.
 8. Creating new routes to qualifications.
 9. Lowering cost of qualifications.
 10. Recognizing non-formal and informal learning.
 11. Monitoring the qualifications system.
 12. Optimizing stakeholder involvement in the qualifications system.
 13. Improving the needs analysis methods to that qualifications system are up-to-date.
 14. Improving qualifications use in recruitment.
 15. Ensuring qualifications are portable.
 16. Investing in pedagogical innovation.
 17. Expressing qualifications as learning outcomes.
 18. Improving co-ordination in the qualifications system.
 19. Optimizing quality assurance.
 20. Improving information and guidance about qualifications systems.
-

296

297 It is important to note that the interactions between qualifications systems and the
 298 mechanisms influencing them are specific to the economic and socio-cultural contexts in which
 299 they exist and due to this fact, it is difficult for them to be generalisable across different contexts
 300 (Werquin, 2007). As an example, among the 15 countries participating in the OECD study, no

one country is working on all nine policy responses because each have identified policy responses that are considered the most pertinent to their specific economic situation and socio-cultural context (OECD, 2007b). Similarly, the mechanisms being used correspond to the policy response(s) the country has prioritized as the most important for them to develop (OECD 2007b; Werquin, 2007). However, while the OECD countries are dealing with linking policy responses, qualifications systems, and lifelong learning, it is not unreasonable to suggest that large associations such as the CAC and its program the NCCP operate in a similar manner.

Coaches' Certification in Canada

The NCCP has been certifying coaches in Canada since 1974 by providing training courses and coach development initiatives for coaches (CAC, n.d.a). In 2004, an important change occurred when the NCCP shifted from knowledge based programming towards competency-based programming (CAC, n.d.a). This programming change marked the importance for coaches to be knowledgeable about their coaching situation while also being competent in their ability to apply that knowledge in their coaching situation. The new version of the NCCP is coach centered in that it provides coach education or coach training initiatives based on the current coaching context that a coach is actively practicing in (CAC, n.d.b). This coach centered approach allows individuals to participate in one of three coaching streams (community sport stream, instruction stream, and competition stream). Within the three coaching streams, there are a total eight coaching contexts (see Figure 5). For example, within the competition stream, there are three possible coaching contexts that a new coach can learn about based on their current coaching situation: competition-introduction, competition-development, and competition-high performance (CAC, n.d.b). The NCCP's shift towards competency-based programming, combined with a coach centered approach, is the first step towards lifelong

learning and is congruent with the outcomes that the CAC has for the NCCP in terms of a commitment to coach education becoming a lifelong endeavor for its participants (CAC, n.d.c). The NCCP's first competency-based programs were multi-sport modules, but each national sport federation, following guidelines by the CAC, developed sport specific programs, incorporating elements of the new NCCP. Recently, a pilot group of 12 sports have been in the process of developing the competition-development context for the NCCP.

Triathlon Canada

Triathlon is a relatively young sport introduced in the early 1970's in San Diego, California (triathlon.org). There are several different distances that one can race, however the Olympic standard distance consists of a 1.5 km swim, 40 km road cycling race, and a 10 km run (triathlon.org). It achieved its Olympic program status in a very short period of time and debuted as an Olympic sport at the 2000 Summer Olympics in Sydney, Australia (triathlon.org). In Canada, triathlon is guided by its own national sport federation entitled 'Triathlon Canada' whose mission is to provide leadership for the growth and development of the sport of triathlon (triathloncanada.com). Part of Triathlon Canada's responsibilities is to provide coach education and certification opportunities for Canada's triathlon coaches, such as providing the certification for the new competition stream in triathlon. Triathlon Canada has developed and started to implement a new coach education training program that appears to respect key aspects of lifelong learning (see Figure 6).

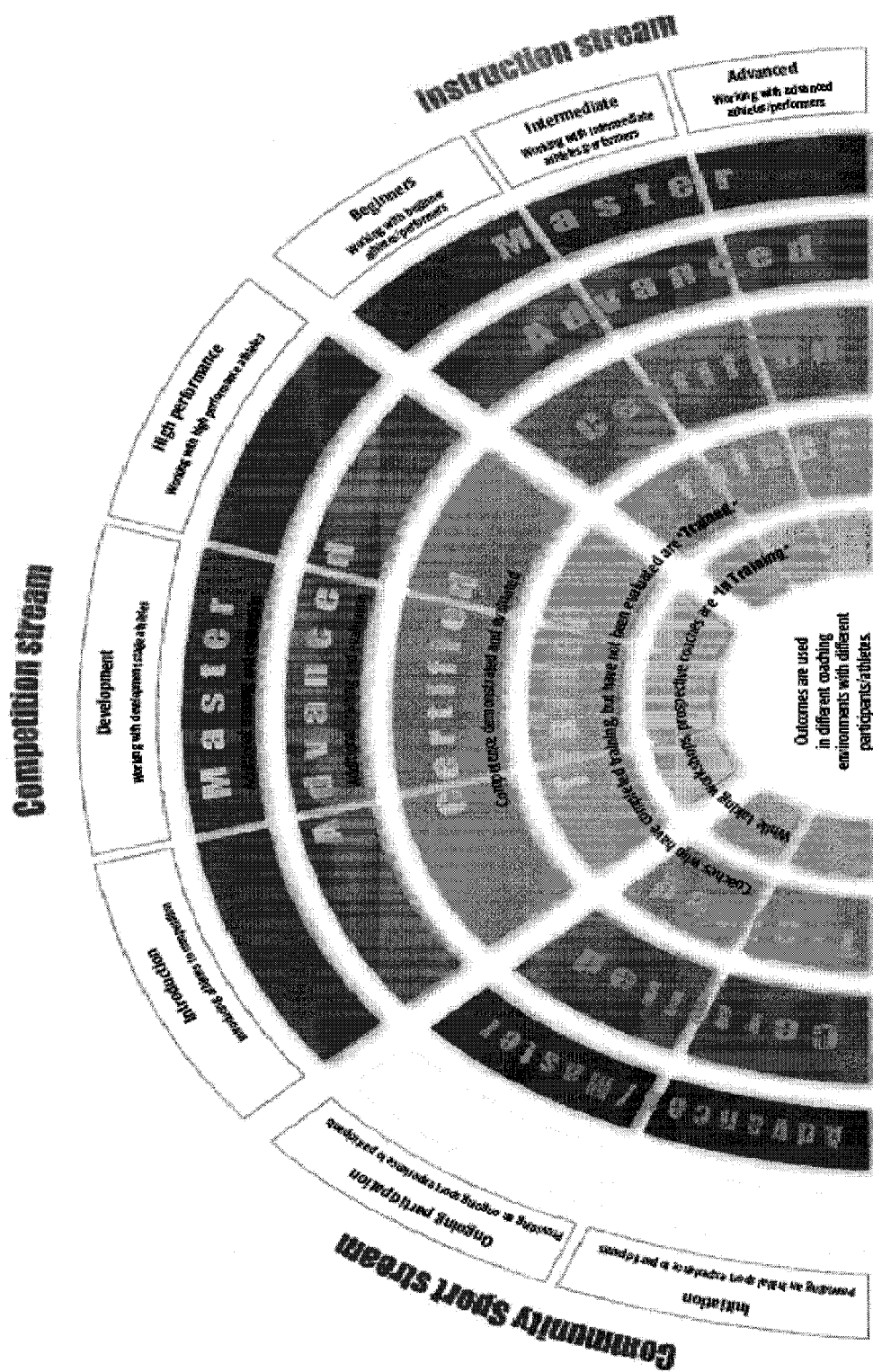


Figure 5. The new NCCP diagram

Triathlon CANADA

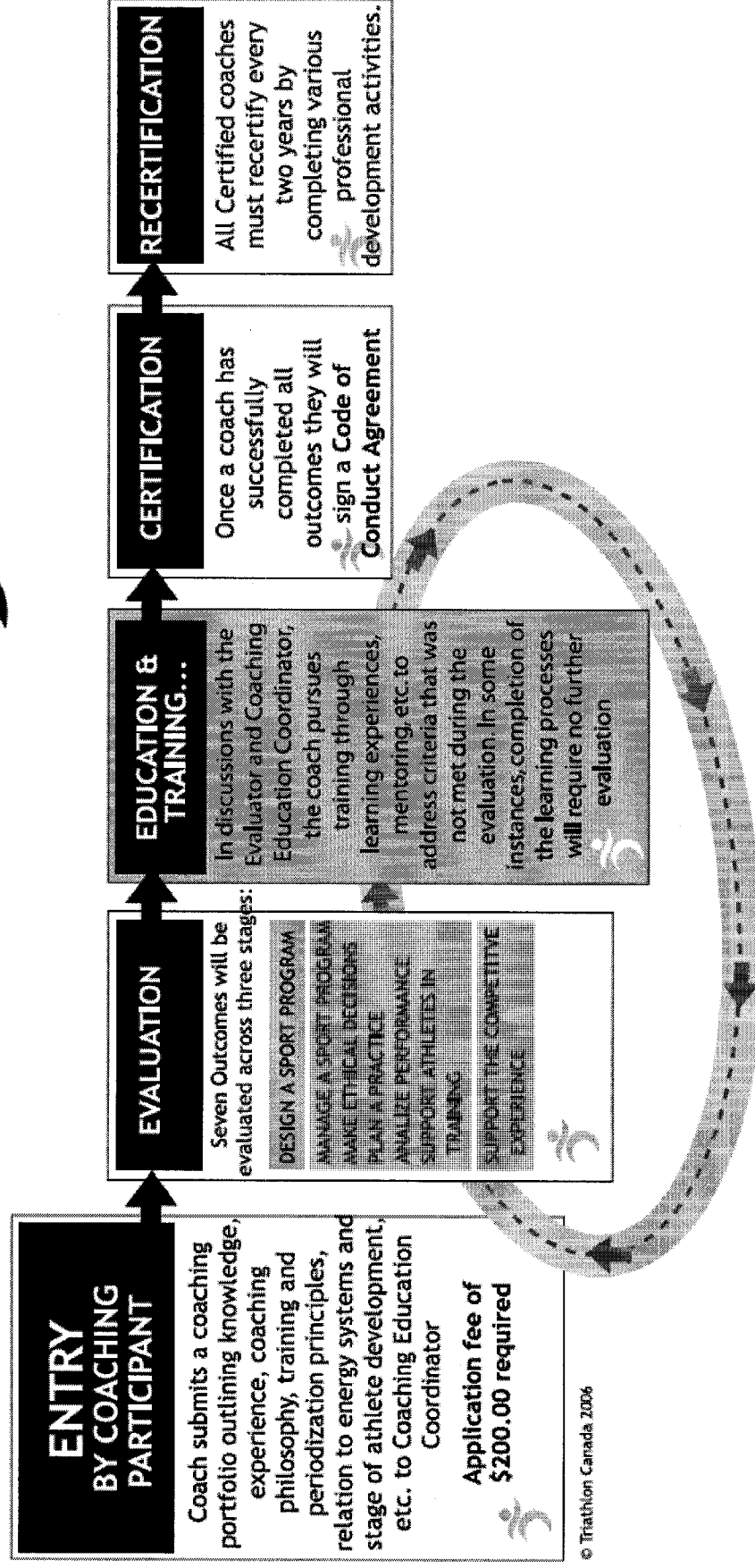


Figure 6. Triathlon Canada's coach education training program in the competition-development context.

The new program starts at Stage 1, when a potential competition-development coach submits a portfolio containing such things as relevant sport experiences, coaching philosophies, training and periodization principles, etc. A participant must be actively coaching athletes considered congruent with Triathlon Canada's long-term athlete development model for the competition-development context. Stage 2 is entitled 'Evaluation' and is characterized by seven outcomes that have been mandated by the CAC. It is during the Evaluation stage that a participant begins to communicate with an evaluator(s), in a series of debriefs or 'learning conversations'. The entire evaluation process may take anywhere from 6 to 12 months as the outcomes are organized in such a way that a participant becomes familiar with the nature of the program and the types of interactions they may have with an evaluator. Once the participant and evaluator(s) have collaboratively identified areas for further learning and development, they move to Stage 3 entitled 'Education and Training'. A participant may engage in learning processes such as working with a mentor coach or enrolling in a specific course to address the areas in need of further learning. Once all of the outcomes have been completed, the participant moves on to Stage 4 entitled 'Certification', where he/she signs a code of conduct agreement and is certified in the competition-development context for Triathlon. In order to remain certified, a participant must demonstrate on-going learning and professional development and moves to Stage 5 entitled 'Re-Certification'.

In brief, this progressive approach to coach education training may allow for the delivery of certification based on an individual knowledge, desire, and a need to be certified. With Jarvis' (2007) perspective in mind, Triathlon Canada needs to be cautious about their approach to coach education in order to maintain the nuanced balance between organizational and personal learning. For example, considering their new approach to coach education, a participant may take

up to 6 to 12 months to be certified (personal learning). At the same time, the organization must remain patient about their need to have coach's certified (organizational learning).

Summary of the Review of Literature

The literature on coach learning suggests that there is a tendency to train coaches for a specific sport context. There is also a debate within the coach education research community regarding several different coach education models and conceptual frameworks. Research also suggests that coach's value learning through activities which may occur outside of formal learning situations and that these preferences will likely be informed by their personal biographies. Therefore, a 'cradle to grave' concept of lifelong learner perspective is recommended because it acknowledges a wide variety of learning situations, including formal, non-formal, and informal learning situations (OECD, 2007b). Two conceptualizations of lifelong learning are considered related to the learning that may occur within one's vocation (vocational lifelong education) or happen based on one's personal interests (non-vocational lifelong learning). Yet, the boundaries dividing non-vocational and vocational learning are no longer distinct and the traditional qualifications systems based only on formal learning need to be reconsidered in order to recognize learning that may occur within non-formal and informal learning situations. In Canada, the NCCP has recently transitioned its programming to a competency-based framework that focuses on grouping coaches within similar coaching streams and contexts. As such, there are several national sport federations that are developing their own coaching education programs for the competition stream in the development context. One of these sport federations is Triathlon Canada, who had started to implement a new coach education training program with several elements that seem to respect a lifelong learner perspective. Therefore, conducting a study on the implementation by Triathlon Canada of its new program is

a unique opportunity to fill a gap in the coach education literature and helps organizational bodies in charge of coach education. A visual representation of the links between the main elements of the review of literature is presented in Figure 7. As we can see, Triathlon Canada's new competition-development program is one component of the coaching qualifications framework (QF), along with other qualifications frameworks (e.g. school, university), which combine to form the Canadian qualifications system. By adopting some specific mechanisms, it's possible to make a country's qualification system more conducive to a lifelong learning approach.

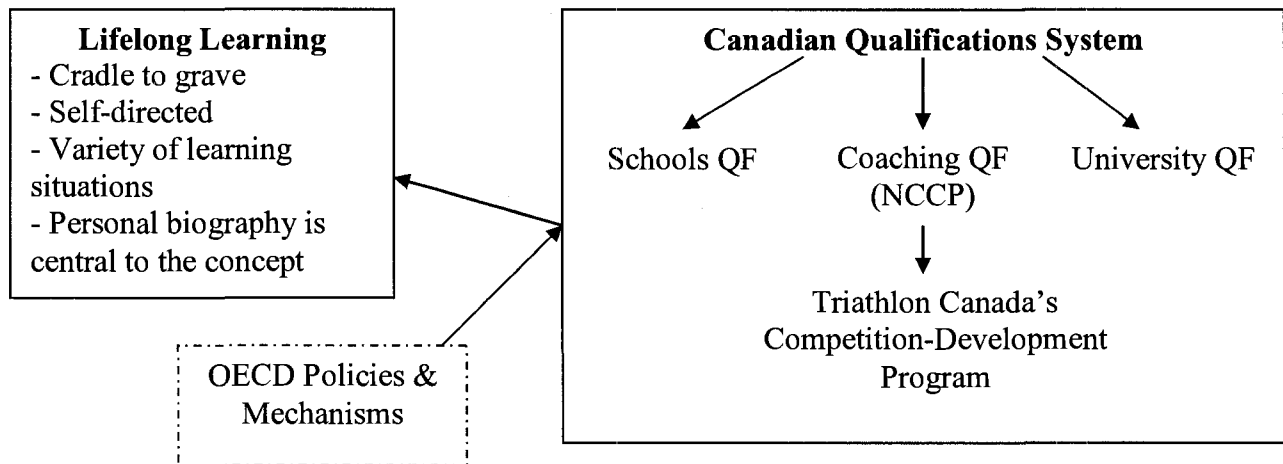


Figure 7. Canadian qualifications system.

447 *Purpose*

448 The purpose of this study was to document Triathlon Canada's implementation of its new
449 coach education training program in the competition-development context. The four main
450 research questions will address:

- 451 1. How has Triathlon Canada's competition-development program been developed and
452 to what extent does it respect the key elements of lifelong learning?
 - 453 2. What are the main characteristics of the biographies of the triathlon coaches'
454 participating in the new competition-development program?
 - 455 3. How is Triathlon Canada's competition-development program conducive to lifelong
456 learning?
 - 457 4. Which mechanisms should be implemented so that the coaches' certification process
458 promotes lifelong learning?
- 459

CHAPTER 3

Methodology

Participants and Data Collection

The following section is divided into two parts (see Table 3). Part 1 documents the entry of the participants into the coach education program with the submission of their portfolio and highlights how the high performance director and coach participants were recruited and interviewed. Part 2 describes the process of obtaining interviews with the three individuals who had participated in the evaluation of the first outcome. All of the participants in the study completed the consent form located in Appendix A, and were free to withdraw from the study at any point.

Table 3. Overview of the interviews.

Participants	Part 1		Part 2	
	Interview type	Interview length (Min)	Interview type	Interview length (Min)
Tim	In Person	97	Phone	35
	Phone	34		
	In Person	59		
	Phone	73		
Matthew			Phone	95
Conrad – Coach 1	In Person	70	Phone	60
Coach 2	Phone	100		
Coach 3	In Person	78		
Coach 4	In Person	50		
Coach 5	In Person	62		
Coach 6	Phone	40		
Coach 7	In Person	45		
Coach 8	Phone	44		
Coach 9	Phone	43		
Coach 10	Phone	54		

Note. Tim was contacted during part 2 as needed.

Part 1

Tim. The former High Performance Director of Triathlon Canada, identified by the pseudonym 'Tim', participated throughout the duration of the study. His role with Triathlon

Canada was to oversee and manage all aspects of the high performance programs including, but not limited to, World Cup, Development, and Junior National teams, and serve as a director for Triathlon Canada's main training center. In addition to these responsibilities, he was the designer of the new program and was in charge of leading the coaching programs, specifically the development of a coach education training program in the competition-development context for the sport of triathlon. Four interviews (two conference calls and two in person) took place during the part of the study. Tim was questioned on various topics which included his a) academic background, b) guiding philosophies, theoretical frameworks, and vision for the coach education training program, and c) current and expected barriers with regards to implementation of the program (see Appendix B). It should be noted that there was a high level of rapport and candor established between Tim and the researcher, due to prior personal and professional relationships between each other. This allowed Tim to be quite forthcoming with information regarding the process of designing and implementing Triathlon Canada's coach education training program and added a greater depth, richness, and trustworthiness to his interviews. All interviews were audio recorded with a digital recorder.

Coaches. A total of 10 coaches participating in the new coach education training program were interviewed. These ten coach participants represent all of the triathlon coaches actively coaching athletes considered congruent with Triathlon Canada's competition-development context. A portfolio submitted to Triathlon Canada in Stage 1 helped put the coach participants past experiences into context and served as a guide for Triathlon Canada to decide whether they actually practice in the competition-development context. As such, participants were selected for the study by: a) being identified by Tim as coaching in the competition-development context, b) submitting a portfolio to Triathlon Canada. Data collection with the coaches began when we

accessed the portfolios. By reading the portfolios prior to the interviews, we were able to individualize the interview guide for each participant. Therefore, the interviews occurred after the coaches submitted their portfolios to Triathlon Canada, but before they moved onto any subsequent stages of the coach education training program. Semi-structured interviews with five participants took place while attending Triathlon Canada's coaching development session in Vancouver, British Columbia and provided a unique opportunity to meet and interact with the participants. The five remaining participants who were not able to attend the coaching development sessions in Vancouver were interviewed over the phone.

All of the interviews with the participants followed an interview guide that began with opening questions on their a) demography, b) academic profile, c) previous experiences in sport, d) knowledge of the new NCCP, e) informal development, f) perspectives on lifelong learning (see Appendix C). The interviews were then personalized by asking probing questions developed by reading the portfolios prior to the interviews. All interviews were audio recorded with a digital recorder and all electronic correspondence (e.g., email, faxes) between the researchers and participants was printed and stored in a private location.

Part 2

During part 2, representatives from the CAC and Triathlon Canada's high performance committee (including Tim) met to discuss conditional approval of the new coach education training program (L. McMahon, personal communication, January 17, 2008). During the meeting, Triathlon Canada decided that of the 10 coaches participating in the new program, only 1 (identified as Conrad) would begin the evaluation process due to practical reasons including his accessibility and familiarity with Triathlon Canada's programs. An interview was set up with Conrad to get his perspective on his evaluation. Furthermore, interviews were conducted with the

two evaluators who had participated in the evaluation. Tim was involved as an evaluator for the evaluation of Conrad. The second evaluator, identified as 'Matthew', was the first external person to be involved with the program. All three interviews were conducted over the phone, audio recorded on a digital recorder, and followed individualized interview guides (see Appendixes D, E, and F). In addition to the interview content, other documents were analyzed during this part of the study; Conrad's portfolio, a curriculum vitae, an annual plan and its description, his application of the LTAD framework, and the evaluation scheme used by Tim and Matthew. Access to Triathlon Canada's coach education website was granted in order to view and download the content related to the evaluation of the Design a Sport Program outcome (see Appendixes G and H).

Data Analysis

For part 1 of the study, analysis of the interviews began immediately after the interviews were completed. The interviews were transcribed verbatim and printed into hardcopies and were given a first read through to look for any areas of emerging interest. Once the interviews were read a first time, they were uploaded and coded in the qualitative software Nvivo (Qualitative Solutions and Research, 2002, version 7.0). Tim's interviews were analyzed to look for descriptions on the process of designing the program and how his background had influenced him in designing the program. Coding of the coaches' interviews was deductive in nature in that it followed the interview guide with pre-determined themes and categories in order to make tables. In order to add trustworthiness during the process of data collection and data analysis, regular meetings were scheduled with the research group and peers with experience in qualitative research in order to discuss themes, questions on analysis, and areas of interest. In part 2, analysis of the interviews began immediately after the interviews were completed. The

543 interviews were transcribed verbatim, and the transcripts were printed. All three interviews were
544 then read through in an attempt to identify the most meaningful aspects of the participants'
545 experience during the evaluation process. Once emerging themes were identified, they were
546 compared to find out whether those experiences complimented or contradicted each other. As an
547 example, each participant discussed how the evaluation process helped them learn.

548

CHAPTER 4

Results

The results are divided into two parts. The first part begins with a section on Tim's background and how he developed Triathlon Canada's new coach education training program. Part 1 also illustrates 'who the participants are'; highlighting their biographies and the learning situations they find important. The second part consists of an interview with Conrad, who was the first participant to begin the process of being evaluated on the outcome entitled Design a Sport Program. In addition, a fifth interview with Tim (now in the role of an evaluator) and Matthew (the external evaluator) will be presented. In all sections, relevant excerpts from interviews will be used to illustrate significant aspects of the participants' biographies and Triathlon Canada's process of implementing its new program.

*Part 1**Background and Perspective of Tim*

Tim's professional background includes over 15 years as a practicing sport psychology consultant and lecturer in kinesiology, leadership, coaching, and program planning at the university level. In addition, he has been actively facilitating professional development workshops on sport psychology at Canada's sport centers and National Coaching Institutes. His academic background includes a PhD in Education and applied research focusing on the practice and lived experiences of sport psychology consultants. This background has provided him with the perspective of "first and foremost [viewing] sport to be about coaching" and was an important influence for him to develop a program that is tailor made for the type of coaches practicing in the competition-development context for the sport of triathlon.

571 From these experiences, Tim developed his own perspective on coach education and
572 found that while he was designing the program, his perspective was getting reinforced from
573 individuals whom he considers expert coach educators. He stated:

574 So when I started constructing the coach education program for Triathlon Canada's
575 comp-dev stream, it was no question that I was bringing those perspectives to the process.
576 Interestingly, as I did that and started to formulate my thoughts, I was getting
577 reinforcement for my perspectives about coach education by those I regard as experts in
578 the field of coach pedagogy, or coach education, or coach learning...So you can see it
579 really...I don't think I was influenced by [expert coach educators] at the start, but...I was
580 actually influenced by how I see practice or practitioners being developed and clearly
581 there is no difference whether you are a practitioner of sport psychology or whether you
582 are a practitioner of athlete development, if you want to define a coach as that.

583 When asked about his thoughts on adult learning, he responded with personal reflections
584 about the process of actually learning to practice sport psychology and of poor personal
585 experiences within the old NCCP triathlon coach education program:

586 I reflected upon what it is to coach, but also what it is to help coaches learn. Personally, I
587 never learned to practice sport psychology by sitting down for an hour and listening to a
588 lecture. To me, it just could not relate to the opportunity I would have had the next day,
589 to actually apply the learning...So when I look at it from my coaching experiences, I
590 went through the old NCCP Triathlon coach education and I remember sitting down and
591 it was a lecture based teaching style...and it was obviously not an exciting period of time,
592 but it also had no relevance from a positive perspective, for me for my coaching. So
593 that's when the whole notion of situated learning became important to me. It has to be

relevant and there needs to be an opportunity to implement the learning in some meaningful way, which means that the learning should be facilitated based on what I really need to learn about, so that I might really change the way I coach in the future and it is actually centered around my current [coaching] situation.

His personal, professional, and academic experiences gave him a strong emotional perspective in that he “felt a really high level of both personal and professional responsibility to actually deliver a coach education training program that [he] believed in and that [he] believed they [the coach participants] would feel positively about”.

Tim also remarked that he was influenced by the work of Henry Mintzberg (2004) and his book entitled *Managers Not MBAs: A Hard Look at the Soft Practice of Managing and Management Development*. Mintzberg did typologies of university MBA programs and argued that good programs have the learner leading their own development and could be a blend of different approaches or strategies to help the individual learn. Tim borrowed from this perspective and attempted to apply a ‘blending pedagogies’ approach by keeping in mind that “how we help coaches develop could in fact acknowledge individual learning styles and acknowledge different forms of learning”. By acknowledging individual learning styles and different approaches to learning, Tim was making it clear that his new program would place importance on the learner’s past experiences and could acknowledge previous learning in non-formal and informal situations. This general perspective has implications on several aspects of coach education. We will highlight some of these implications

Asking for the portfolios

Any coach wishing to enter Triathlon Canada’s new program must first submit a portfolio that could include such things as their past coaching experiences, planning and periodization

principles, coaching philosophy, present coaching situation, etc. The portfolio is an important first step because it helps “establish relevance or readiness that you coach in this stream...it’s really just making sure that we’ve got some information to put their experience in context”

(Tim). When asked about how the coaches’ felt about submitting portfolios, Tim commented:

The one question I got the most from the coaches was ‘can I see someone else’s portfolio so I can have a template?’ and I said ‘No’ because the choices you make on how you put your portfolio together and what you include and how you deliver your portfolio is all important in knowing who you are as a coach...the coach cannot ask ‘what do I have to do to pass?’ It just is not a permissible question. The question should not ever be ‘what do I have to do to get evaluated correctly?’ I don’t want to know. It is not up for discussion. The focus is on learning and not on the assessment.

Without having a specific template to follow, the coach – participants’ were able to submit items that they felt were important for their portfolio, and due to this increased flexibility and choice, variations occurred in both depth and content. Table 4 illustrates the content of the portfolios.

Table 4. Content of portfolio’s upon entry into Triathlon Canada’s competition-development program.

Coach	Current situation	CV	Planning		Coaching philosophy	Self-assessment	PET structure
			Chart of annual plan	Description of annual plan			
1		X	X	X	X		
2	X		X		X		
3			X	X	X		X
4	X	X			X		
5		X					
6		X		X	X		
7	X	X	X	X		X	

8	X	X				X
9	X		X			
10	X			X	X	X

Note. Coaching and Leadership philosophy were similar. In many cases, the annual plan included planning and periodization principles. PET = Performance enhancement team.

Each participant submitted portfolios that varied in length and content. When questioned about his thoughts on the variety of submissions, Tim exclaimed:

Well that is exactly what I'd hope to see. That actually gets me somewhat excited because what that means is that all of the coaches haven't gone about having to satisfy a very specific way of representing themselves. I guess I use it this way, in the absence of something – something is being communicated. So if a coach chooses not to share something with you, you know, we'd have to discuss it, but what I'm saying is that maybe they feel that it is not important, or it's not a priority, or they don't believe in that...So when you see the wide variety of portfolios...it's really neat because you can see that every coach has come to know and practice coaching in very unique and individual ways.

De-emphasizing evaluation and certification

Tim's unique academic and professional perspective, combined with the specific nature and number of triathlon coaches practicing in the competition-development context, enabled him to develop a program that "is individualized, learner centered, and identifies competency". One of the important elements of the new program was to de-emphasize evaluations in order to focus on learning and professional development. For instance Tim states, "we are trying to de-emphasize certification and emphasize on-going learning, professional development, and professional sharing...being certified as a comp-dev coach is something that is just going to happen along the way of all the other things that we're doing". In order to communicate this

655 element of the program, Tim had to be clear to the coaches and explain why they were being led
656 through the evaluations:

657 So what I've been talking to the coaches about is 'this is not about getting it done'. This
658 is about us having the best Triathlon coaches in the world, because I believe if we do,
659 we'll have the best athletes in the world. So they need to get excited about the learning
660 and sharing of information and I had to, at all opportunities, de-emphasize the evaluation
661 aspect...So you had to be clear about why the coaches were led through evaluation. So
662 we can identify the areas that require learning, so we can determine that there was no
663 required learning right? The idea being that we're expecting you are going to succeed.
664 Because as you recall, I'm not trying to determine advanced experts, I'm just saying that
665 they are competent. We really want competent coaches.

666 Although there was a marked effort to de-emphasize the evaluation of the participants by
667 focusing on learning, Tim addressed the issue of maintaining standards in the new program and
668 stated:

669 I think the program gets standardized through the expertise, I think it is standardized
670 through the evidences that are being asked by the coaches, but I don't think that we need
671 to start writing a procedural manual of how to evaluate a coach because we are all going
672 to debrief a coach differently and we might ask some different questions, but as long as
673 they are related to the same sets of evidences and criteria, then I think we have
674 standardized the process of trying to deem a coach competent.

675 *Getting others to buy into the vision of the program*

676 Before describing some of the on-going challenges with regards to getting others to buy
677 into the vision of the program, it is helpful to provide some background on two significant

changes that occurred after the first two interviews with Tim. The first significant change was that the NCCP consultant who acts as a liaison between the CAC and Triathlon Canada resigned and a new consultant was provided. The second significant change was that Tim resigned his position as the high performance director and took a new position. However, he was still involved with Triathlon Canada as the chair of the high performance committee and team leader of their performance enhancement team (PET). Unfortunately, a majority of the work was now in a voluntary capacity and this restricted the amount of time he could devote to it.

During the time period between the final two interviews in part 1, Tim encountered some challenges which involved trying to get the various stakeholders “aware of and agreement of the philosophy” of the new program. Two stakeholders in particular, were mentioned during the interviews: the evaluators of the new program and the CAC – NCCP staff and consultants. The evaluators are an important component of the new program in that they help set the tone and nature of the program with the participants. When asked to give an example of how the evaluators would buy into the programs new approach, Tim commented:

Well it requires an acknowledgment of no absolute truth...The point I’m making is that you don’t need PhD’s to do this, but just an acknowledgment that in fact, there is no one right way...because I think there are a number of ways to get there.

Tim remarked that the danger of not having the evaluators or any other stakeholders acknowledging the philosophy of the new program was that “if we get that wrong, then I think we will probably never have achieved the type of program we set out to do” (Tim). As it turns out, getting other stakeholders to buy into the vision of the program was his biggest challenge, specifically with the CAC. He remarked that further negotiation would be required in order to implement a program that stays true to the philosophy he had envisioned.

701 It's really a funny thing because I have such strong beliefs about the direction we want to
702 take this into, but I have no idea where it will all end at the end of the day, like how far
703 along we'll get. But the challenge for me is to continue to broker or negotiate this type of
704 program with the CAC. So that's the on-going challenge because at some point this has to
705 go onto a formal review process and I know when I start talking the way I'm talking here
706 with you...I know there are times that I feel that I actually lose them. Like in the middle
707 of the conversation I feel that they are like...they just look like they are just not
708 supportive of what just came out of my mouth.

709 However, Tim was cautious not to lay blame and was mindful that the CAC was dealing
710 with a major transition in terms of leading the development and implementation of new programs
711 for coach education training in Canada. He stated:

712 I don't know how I would go about doing this if I was the CAC. In other words, I'm not
713 sitting down here criticizing them, but I almost think that it is bigger than them. I almost
714 wonder if the time has come for a more de-centralized, sport-by-sport approach to coach
715 education and training, than having a National body oversee it...I almost wonder if the
716 CAC needs to let go of being formally involved and play more of a facilitative role for
717 the sports.

718 The lack of support manifested itself as moving away from the core philosophies and
719 approaches that provided the foundation of the new program. For example, Tim comments on the
720 pressure from the CAC:

721 I almost feel like there is a level of hegemony on exerting influence on us right now. So
722 at some point, and I haven't seen it play out yet, so I could be wrong, but when I get the
723 odd email back from this new consultant that we have, is that we are continually having

to be brought back to the generic. Or we are continually being brought back to ‘but how will you train your coaches?’ and I keep saying ‘they are already trained’.

So who are these ‘trained’ coaches’ participating in Triathlon Canada’s new coach education training program? In the next section, biographies of the participants in the new program will be presented.

Triathlon Coaches

Tables 5 and 6 display the biographies of the full time coaches and part time coaches, respectively. The coaches are separated into two groups based on employment for two reasons: a) Jarvis (2007) differentiates lifelong learning as either non-vocational or vocational and b) the OECD regards employability as an important link for bridging the gap between qualifications systems and lifelong learning.

Gender, Age, and Number of Years Coaching Triathlon

The coaches in the full time group were male with an average age of 36.2 years compared with the part time group which consisted of four males and one female with an average age of 38.2 years. In order to maintain confidentiality, all of the participants will be referred to as male. The coaches in the full time group have been coaching triathlon for an average of 14.4 years. This is contrasted to the part time group who have been coaching triathlon for an average of 9.1 years.

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Table 5. Biographies of full time coaches

Coach	Age	Number of years coaching triathlon	Family	Formal Education	Experiences as an	
					Athlete	Coach
1	33	9	Commitment	B.Kin; M.Sc; Graduate NCI	Swimming; Triathlon; WUC	Triathlon
2	30	7	Commitment	B.A; B.Ed; Enrolled NCI	Swimming; Cycling; LDWC	Alpine skiing
3	40	23	Commitment	B.A; M.Sc; Graduate NCI	Triathlon; NT(A)	Swimming, Cycling, X-Country; Triathlon
4	29	10	No commitment	Enrolled NCI	Triathlon; JND;	Triathlon
5	49	23	No commitment	B.Sc	Swimming; Varsity	Swimming
M=36.2		M=14.4				

744 *Note.* FT: Full Time coach employed by a National Sport Federation or Provincial Sport Federation. LDWC = Long Distance World
 745 Championships. JND = Junior National Development team. WUC = World University Championships. NT(A) = National team – age
 746 group. NCI = National Coaching Institute.
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Table 6. Biographies of the part time coaches

Coach	Age	Number of years coaching triathlon	Family	Formal Education	Occupation	Experiences as an	
						Athlete	Coach
6	30	5	Commitment	B.Sc	School Administrator	Swimming	Swimming
7	47	20	Commitment	Diploma; Enrolled NCI	Coach	X-Country	Assistant CIS Coach
8	41	10	No commitment	B.Sc; Enrolled NCI	Microbiologist	Cycling; X-Country LDWC	X-Country
9	33	9	Commitment	B.A; B.Ed	Teacher	Swimming; Cycling; JND	
10	40	1.5	Commitment	B.A, RMC	Triathlon USA administrator	Swimming; WC	Biathlon
		M=38.2	M=9.1				

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Note. JND = Junior National Development team. LDWC = Long Distance World Championships. WC = World Championships.
X-Country = Cross Country. NCI = National Coaching Institute. RMC = Royal Military College

755 *Family Commitment*

756 This category is defined as whether the coaches have any significant family
757 commitments such as a wife, husband, common law relationship, children, etc. Three of
758 the five full time coaches' have a family commitment as we have defined it above. In the
759 part time coaches group, four of the five participants have family commitments. Coach 3
760 describes how a changing family dynamic will influence his coaching practice for the
761 upcoming year.

762 It also depends on your stage of life so as I've said, my daughter is more of a
763 priority and when I was younger I may have had a little more thirst for the
764 knowledge, but I had to take my daughter full time and so that changed things. So
765 I mean coaching is still a love of my life, but my biggest role now is to take care
766 of my daughter, so I guess it's kind of mellowed my priorities a bit more.

767 *Formal Education*

768 In general, the 10 participants of the study are well-educated. In the full time
769 group, four of the participants have completed one or more university degrees, all related
770 to human kinetics or physical education. Notably, two participants (C1 and C3) have
771 completed Master's of exercise physiology degrees along with diplomas at the National
772 Coaching Institute (NCI). The one participant (C4) who does not have a university degree
773 is enrolled with the NCI for a diploma in high performance coaching. Similarly, four of
774 the five participants in the part time group have completed one or more university
775 degrees however there is more variety in the subject areas. Undergraduate degrees in the
776 part time group included disciplines such as math, microbiology, history, commerce, and
777 education, though none specifically contain sport content. Two participants (C7 and C8)

are also enrolled with the NCI specifically for athletics (Cross Country) coaching because a triathlon option was not available at their respective NCI's. Coach 10 also completed military training while attending Canada's Royal Military College.

Occupation

In terms of occupation, participants 1 through 5 are employed as full time coaches by national or provincial sport organizations. Participants 6 through 10 are part time triathlon coaches and their occupations range from being employed as full time administrators (C6 and C10), to contract coaching (C7) and part time teaching (C9), to a full time microbiologist (C8). Coach 7 provides an example of what it is to have coaching contracts: "I do a contract position with the city where I do drop in swimming and I have another contract with a track and field club and then I have individual contracts with athletes that I coach for running or triathlon".

Prior Athletic Experience

All of the participants have experience in either triathlon or its sub-disciplines of swimming, cycling, and running. For the full time participants, three (C1, C2, and C5) had their primary athletic experiences in swimming and the other two (C3 and C4) identified themselves specifically as triathletes. For the part time coaches, three (C6, C9, and C10) identified their primary athletic experiences with swimming. The other two (C7 and C8), identified cross country as their primary sport experience. Many of the participants have also had experiences competing at an elite level. For example, all five full time coaches had athletic experiences attending a World Championship, World University Championship, or were members of Canada's National Triathlon team. Similarly, three part time participants (C8, C9, and C10) also had elite athletic experience

801 and competed at elite events such as World Championships, raced Triathlon World Cup,
802 or was a member of Canada's National Triathlon team.

803 All of the participants commented on how their prior athletic experiences had
804 influenced their decision to get involved in coaching. For some participants, becoming a
805 coach was a logical next step from being an athlete. For example, coach 3 states "I think
806 it kind of evolved because I was racing and coaching...so it was kind of a natural
807 progression". However, for some other participants, becoming a coach was a result of
808 poor coaching experiences while they were athletes. One coach in particular speaks about
809 how an overtraining incident as an athlete proved to be a powerful motivator to start
810 coaching:

811 Probably one of the things that made me interested in coaching was getting quite
812 overtrained as a junior. I was racing as a junior and then cross country started and
813 I was starting school and I got really sick that year and I got really overtrained and
814 that kind of motivated me to you know, ask 'how do you piece it all together?'

815 It's not as simple as doing as much as you can do, so that sort of idea. (C4)

816 Still other participants commented that their love of Triathlon became part of a
817 lifestyle that they wanted to share with others. For example, coach 6 states "I basically
818 got involved in coaching because I enjoyed the sport. I still do a little bit of training, you
819 know, not nearly as much as an athlete, but it's become part of a lifestyle. I guess part of
820 the reason is that you want to pass that lifestyle on to others".

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824 *Prior Coaching Experience*

825 Generally, all of the participants had a wide range of previous coaching
826 experiences, mostly through triathlon's sub-disciplines of swimming, cycling, and
827 running. Only two coaches (C1 and C4) stated that their first coaching experience was in
828 the sport of triathlon.

829 *Coaching Certifications*

830 Table 5 displays all of the participants' NCCP certifications prior to entering the
831 new program. All of the participants, with the exception of C1, hold multiple NCCP
832 certifications. Interestingly, four of the coaches are also learner facilitators for triathlon's
833 competition-introduction context. All of the participants have coaching certifications in
834 triathlon, but they also have other certifications as well. For instance, eight out of the 10
835 participants have coaching certifications in swimming. In addition, eight participants
836 reached level 3 in the old NCCP.

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Table 7. NCCP certifications prior to entering Triathlon Canada's competition-development context.					
Coach	NCCP Certifications				Learner Facilitator
	Swimming	Cycling	Athletics	Triathlon	
1				Comp-Intro	Yes
2	Level 3			Comp-Intro	Yes
3	Level 2	Level 2		Level 1	Level 1 alpine ski Level 3 theory; Ch.Pc.
4	Level 1			Level 1	Level 3 theory
5		Level 2		Level 2	
6	Level 1			Level 1	
7	Level 2	Level 2	Level 3	Level 1	
8	Level 1		Level 3	Level 1	Yes*
9	Level 3			Level 1; Comp-Intro	Level 1 alpine ski; Level 3 theory
10	Level 2			Level 1**	Level 1 biathlon; Level 3 theory

Note. Ch.Pc = Chartered professional coach. *C6 is also a learner facilitator for Comp-Intro Athletics. **C10 Level 1 certification with USA Triathlon.

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840 *Where They Have Learned to Coach Triathlon*

841 Our data indicated that our participants have learned to coach triathlon through a
842 variety of learning situations. We have re-grouped them into four formal learning
843 situations, two non-formal learning situations, and three informal learning situations.
844 These learning situations will be presented in the following section.

845 *Formal Learning Situations*

846 *University.* Those participants who attended university indicated that they enjoyed
847 their experience and it has influenced their coaching practice. Generally, the participants
848 suggested that their course content was basic, but provided good foundational knowledge.
849 One coach in particular compared his university experience as building a house, where
850 you “start off with the digging of the foundation and then you put up some bricks, you
851 know, brick by brick...I learned some really simple principles in coaching...and you start
852 to apply them and that was the exciting part of school” (C5). For other participants who
853 did not take any sport specific or coach related content in university, they still found that
854 they were able to take aspects of their university experience and apply it to their coaching
855 practice. For example, one coach who holds a B.Sc in math spoke about how his
856 academic experience informed his coaching practice.

857 University helped in terms of problem solving ability...it helped in terms of
858 planning and laying out a logical sequence or progression. Basically, you analyze
859 each athlete as a problem. It’s just taking the problem solving approach and
860 applying it to coaching. (C6)

861 However, some coaches remarked that due to the generic nature of their
862 university courses, the ‘real’ education started once they left university and began their

863 coaching practice and saw firsthand the gap between theory and practice. For example,
864 coach 1, who holds an M.Sc in exercise physiology stated, “that was a real education, you
865 know, coming from a quote – unquote science background versus what is really
866 happening in the field”. Therefore, those participants who attended university generally
867 enjoyed their experience, but found that it was only the beginning of developing their
868 coaching practice.

869 *NCCP*. As stated previously, all of the participants have triathlon certifications
870 and also hold certifications in other sports (see Table 5). For example, one coach stated,
871 “I have coached Swimming for maybe 3 or 4 years because my Triathlon program is a
872 big part of the swim program here” (C2). Another part time coach remarked about how
873 triathletes cross over into track and field. He stated, “most of the athletes that I coach, I
874 carry over into indoor track and field” (C8). When asked about their general impressions
875 of the old NCCP courses that they had taken, a majority of the participants spoke about
876 the ‘basic’ and ‘general’ nature of the courses. For instance, one of the participants
877 summed the commonly expressed belief that the NCCP’s “intention is good every time.
878 But whether they achieve their goal, I’m not too sure” (C9).

879 All of the participants were aware of the new NCCP’s shift towards competency-
880 based programming and feel that it will help create better coaches by focusing on
881 demonstrating competencies and not on programming for knowledge. For example, coach
882 8 suggested:

883 We are going to pick up on a lot of things that we wouldn’t have in the old way
884 and that is going to lead to better coaches and I’m very happy with that. I think

885 that a lot of coaches are going to be surprised and they are going to have to do
886 more work, but in the end, they will be better off. So I think it is a good process.

887 Interestingly, while some of the coaches speak to how certification earned in the
888 new NCCP may become more important because it demonstrates competency, others
889 comment that it is not the certification that is important, but the process of learning.

890 I think that for me it's not the certification, but the process of learning that you do
891 or don't do in that. I'm not terribly motivated by the end result of it. It's more 'am
892 I able to find value in the processes so that it doesn't feel like hoop jumping. It
893 feels like this is a meaningful exercise in an area where you can improve'. (C4)

894 Due to the fact that the participants took part in variety of certifications across
895 multiple sports, they found different sports' NCCP courses more relevant than others. For
896 example, one coach speaks about how taking an NCCP swimming course had a positive
897 influence on his triathlon coaching.

898 The swimming one was quite beneficial. It provided me with a good background
899 in terms of skill development because prior to taking the course I tended to rely
900 upon my own experiences, so it was good to be in a group where you're basically
901 learning skill development approaches from 20 other individuals. So I was
902 definitely able to take away a lot from that. (C6)

903 Another coach remarked on how taking some NCCP courses re-started a process
904 of reflection on his coaching practice and reminded him of things he may need to think
905 about while coaching.

906 Maybe you didn't learn anything new, but it reactivated the thought process that
907 kind of just put on the shelf. So it kind of made you re-think 'oh yeah, ok, this is

908 how you whatever'. So yeah, it was kind of nice to get a kick in the butt once in
909 awhile and revisit something. (C7)

910 However, while most participants had positive things to say about the NCCP, one
911 participant found that the NCCP courses were too formal, comparing it to sitting in a
912 classroom and speaks to how the material does not actually determine competency.

913 You sit in a classroom, do book stuff, anybody can do it, and it's 'ok' for the first
914 one, I suppose...but once you get to [a higher level]...it's sit in the classroom and
915 do your book stuff...but it doesn't show that your are competent! (C10)

916 *National coaching institute (NCI)*. Six participants have either graduated (C1 and
917 C3) or are enrolled (C2, C4, C7, and C8) in Canada's National Coaching Institute's
918 diploma program. All of them have expressed value in going through the process of
919 completing a diploma at an NCI. One of the main aspects that the coaches' enjoyed about
920 their NCI experience was the opportunity to interact with coaches from other sports. As
921 one coach expressed, "we challenged each other and had a lot of fun" (C3). Another
922 coach summarized his experience in the NCI as being able to focus longer on one topic,
923 rather than switching to a new topic every two hours.

924 It was just nice to be able to devote a number of evenings to that particular topic
925 rather than a half hour here and a half hour there and focus on whatever came up.

926 So it was just nice to present it one at a time and go through that educational
927 process without having to worry about other things at the same time. (C8)

928 *Learning in the workplace*. One of the part time participants spoke about how his
929 employer has offered professional development courses and that he has been taking
930 advantage of these programs and applying it to his coaching practice.

931 We have a leadership development program and I've gone through some of the
 932 initial courses there. Although it's geared mostly towards the workplace, I find
 933 that a lot of it can be transferred over. You know, they have programs for
 934 understanding personalities and getting along with different personality type, how
 935 to manage people, how to lead people. I find it is a great crossover to coaching.
 936 (C6)

937 Another participant who prepared for a career in the military attended Canada's
 938 Royal Military College (RMC) and remarked that his military training has been more
 939 beneficial towards his coaching practice than his university degree. He states, "the
 940 commerce degree is like any other degree in a university where there is teaching and you
 941 learn, but it is all the other military and extracurricular training that I've used [for my
 942 coaching practice]" (C10).

943 These two examples are interesting because they illustrate how learning in their
 944 occupations (careers) can be transferred and applied to their non-vocational coaching
 945 practice.

946 *Non-formal Learning Situations*

947 *Performance enhancement teams (PET)*. A PET (now known as an Integrated
 948 Support Team or IST, but will be referred to as a PET for this thesis), is a group of sport
 949 science professionals who work with the coach in order to ensure the optimal preparation
 950 and performance of athletes (ownthepodium2010.com). Generally, those participants
 951 with access to a PET indicated that they valued and learned from these interactions. For
 952 example, one participant spoke about how members of his PET would send sport science
 953 articles, journals, or information considered relevant to him. He states, "he is a good

954 physiologist and he sends me research and my nutritionist sends me research...I have a
955 lot of people who give me a lot of good information” (C2). Another participant, whose
956 experience includes being an elite triathlete remarks that he is still developing his
957 coaching practice and seeks out learning opportunities with his PET through his job as an
958 administrator – coach for a National Sport Federation. The coach commented:

959 I would still consider myself in the learning phase. I’m self driven and I try to get
960 information from everywhere. I’m here at the center and I’ve got the best sport
961 scientists in North America and I’m just trying to suck it all in to be the best I can
962 for the athletes. Whereas before, I picked and chose the best, but right now I don’t
963 know...I consider myself as hardly knowing anything and so it’s a little bit of a
964 different feeling. (C10)

965 For another participant with considerably more coaching experience than coach
966 10, working with two individuals within a PET had the single biggest impact on his
967 coaching practice. He stated:

968 I learned more about coaching with [name] and [name] with the Canadian Sport
969 Center and their help working with a PET because we were one of the first in the
970 country...and I learned a lot from that and that took my coaching to another level
971 from where it was at. (C3)

972 *Conferences and workshops.* Several of the participants’ commented on the value
973 of attending different conferences, including National (CAC Sport Leadership Sportif),
974 Regional (SPIN Summit), and Provincial (Swim BC, Swim Ontario) conferences. The
975 inclusion of provincial swimming conferences is notable and could be possibly attributed
976 to the fact that swimming is viewed by the participants as more technical, when

977 compared to cycling or cross country. For example, one participant mentions that
978 “swimming is very technical and I’ll often try to go to that [conference] on an annual
979 basis” (C5). Another participant spoke about how he looks forward to some of the
980 keynote speakers at the conferences.

981 The opportunity to learn from very experienced coaches, particularly the one’s
982 who have achieved gold medals and authentically brought athletes to the top of
983 the podium and trying to understand how they did that and the challenges they
984 faced and how they overcame the challenges and things like that. I find that stuff
985 really valuable and motivating and so that’s why I still enjoy coming to
986 conferences and hearing a bit about that. (C4)

987 However, it is interesting to note that it is the interactions between the coaches,
988 often between sessions during the conferences, that participants value the most.
989 Therefore, the next learning situation that will be presented involves informal learning.

990 *Informal Learning Situations*

991 *Interactions among coaches.* The value of being able to interact with coaches,
992 both inside and outside the sport of triathlon, is one of the common themes expressed
993 among all of the participants. Often, coaches interact informally with each other at
994 conferences or large races.

995 It is nice to attend at least one of those conferences once a year, but again, I get
996 more out of just talking to coaches than I do out of some of those sessions. I’d
997 sooner go to a large National race and just sit down and chat with coaches over a
998 beer or two, than spending money going to a conference because I will learn more
999 talking with other coaches than I will at a lot of the conferences. (C8)

1000 The participants also spoke about a renewed sense of solidarity among the
1001 triathlon coaching community, focused on developing athletes for the world stage instead
1002 of fostering competition amongst each other. This sense of community was observable
1003 with the coaches who were present during Triathlon Canada's coaches meetings where
1004 five interviews were conducted. When asked about the sense of community amongst the
1005 triathlon coaches, a participant remarked:

1006 Everyone in the country is working together now, rather than worrying about who
1007 is winning Junior Nationals. You know, we still want to win Junior Nationals, but
1008 we're more interested in knocking off the U.S. at World's then beating other
1009 provinces. (C3)

1010 Coach 1 became animated when asked about the sense of community among the
1011 triathlon coaches and noted that this was a recent development. He echoed coach 3's
1012 comments and elaborated on the trust he feels with the coaches in Canada's competition-
1013 development community.

1014 We've got this really nice community of practice where I would absolutely trust
1015 any of those guys with any of my athletes and know that at the end of the day, the
1016 athlete will come back to my program and not have been recruited or worked or
1017 undermined in any way...we are just starting to see that happen over the last 1 or
1018 2 years for the first time. (C1)

1019 One of the participants commented on the importance of continued interactions
1020 and sharing knowledge within the triathlon coach community because of the benefits that
1021 can be gained through such interactions.

1022 If I go to another coach and remark ‘that athlete is doing really well. What are you
1023 doing differently?’ then they share and they tell and I think that is a huge part of
1024 coaching and it is an informal part of coaching, but we make each other better.
1025 Knowledge is nothing if you don’t share it and you will always get back more
1026 than you give away. (C8)

1027 In addition to sharing within the triathlon coach community, several of the
1028 participants also commented on maintaining positive relationships with coaches in
1029 triathlon’s constituent sports, due to the important roles that these other coaches can play
1030 in triathlon athlete development. For example, one participant spoke about his
1031 interactions with a swim coach and another triathlon coach and of the value he found in
1032 that.

1033 For two years I walked a 50 meter swim deck for 5 days a week with a really
1034 excellent swim coach...and we used to question each other on ‘how’s the
1035 programming going? Or what research are you reading? Or are we critically
1036 analyzing what the athletes are doing?’ It was an incredible education. (C1)

1037 However, though many of the coaches expressed value in maintaining positive
1038 relationships with coaches outside of triathlon, limited time and coordination made this a
1039 difficult situation to apply. One coach in particular suggested that Canada’s regional sport
1040 centers could play an important role in coordinating opportunities where coaches from
1041 different sports could interact. He goes on to describe a positive experience where a
1042 number of coaches were brought together in order to prepare for the Beijing Olympics.

1043 Regional sport organizations could do a little better at coordinating that kind of
1044 stuff. There are a lot of good coaches in the region, but there’s not a lot of

1045 information sharing. I'd say that's a really common theme. There isn't a lot of that
1046 in Canada, information sharing. One thing the COC did was this Beijing
1047 Excellence conference and I found that valuable because there's a little more
1048 information sharing. Like let's share what you are doing for preparation...there's
1049 always something to be learned. (C4)

1050 *Mentor coaches.* Several of the participants spoke highly of mentor relationships
1051 that they have had with more experienced coaches. Interestingly, the mentors were not
1052 limited to the sport of Triathlon, but often came from its constituent sports. For example,
1053 coach 8, who began coaching triathlon via cross country, spoke about how his mentor led
1054 by example and described how early in his coaching development, he was able to see
1055 "that way and style of coaching and how to implement the designs through the art and
1056 that was very valuable to me". Other participants described working with mentor coaches
1057 as learning how to develop the 'art' of their coaching practice.

1058 Mentorship prevents you from reinventing the wheel and develops the art of
1059 coaching. It helps to develop your eye and I think without mentorship, you just
1060 end up reinventing the wheel and making the same mistakes that those before you
1061 have. So it can really accelerate your practical education. (C7)

1062 Another participant described how he sought out mentorship opportunities once
1063 he had completed his formal NCCP certifications and that the mentor – protégé
1064 relationship was the best for how he learned.

1065 I would consider any coaching certification as the minimum standard of any
1066 coach. You've met the minimum. You are 'ok' at this level and so now you have

1067 to go seek other experiences. For me, that's usually mentorship. That is usually
1068 the best for me. (C1)

1069 However, due to the fact that triathlon is a young sport, some coaches commented
1070 on the lack of mentorship opportunities within the sport of triathlon. For example, one
1071 participant described how he would attend conferences to interact with coaches in other
1072 sports, who had more experience in order to learn from them.

1073 Well, I guess there are these conferences. I mean it's a couple of times a year. In
1074 being a young sport, we don't have a lot of mentorship opportunities in triathlon.
1075 I'm fairly young for a head coach...and there are only a couple of coaches with
1076 debatably more experience, so there's not a lot of opportunities for in-sport
1077 mentorship, but I find it valuable when I get those opportunities to talk with
1078 coaches with more experience or listen to them at conferences or presentations
1079 where they give their experiences and the ups and downs of how they dealt with
1080 things. (C4)

1081 *Internet and online forums.* Due to the fact that many of the participants are
1082 situated across Canada, one of the ways that they continue to maintain contact was
1083 through the Internet and online forums. For example, one participant speaks about how a
1084 fellow coach set up an online forum specifically for Triathlon coaches and that it has
1085 been good for networking.

1086 Well, [coach 3] has set up a good online forum that a number of Triathlon coaches
1087 use and that's great because we can discuss issues related to coaching with other
1088 coaches across the country, whereas previously, you were kind of on your own.

1089 Now it's a good community and we've got to help each other out. So I think that's
1090 very valuable. (C5)

1091 In addition to making networking opportunities easier, several of the participants
1092 also spoke about using the Internet as a tool for on-going learning. For instance, one of
1093 the participants, who did not have regular access to a PET, commented on his use of the
1094 Internet to search for sport science resources in order to help his athletes.

1095 I use the Internet quite extensively. Just reading other articles written by coaches
1096 or even by exercise physiologists or sport psychologists...stuff like nutrition
1097 resources or mental training resources. There's a lot of great work out there that a
1098 lot of other coaches have developed that I use with my own athletes. (C5)

1099 Another resource available on the Internet that several of the participants spoke
1100 about was electronic sport science journals. However, not all of the participants have
1101 access to the electronic journals. Yet, those with access indicate that these journals are a
1102 rich tool for informing their coaching practice. One participant who has access through
1103 his part time job as a Cross Country coach for a Canadian Inter-University (CIS) team
1104 comments on the value of this online resource.

1105 It is something that I am very aware of, having access through the university...as
1106 long as I have access to their web portal [then] I'll still have access to those
1107 journals in their electronic format, so it is something that I'm very grateful the
1108 university has. It is a huge resource and I'm aware of it and I tend to take
1109 advantage of it. (C8)

Participants without access to electronic journals can be at a disadvantage. For example, one participant remarks how barriers such as access and cost can affect coaches who actively pursue research in electronic journals.

It's a real barrier for coaches who actually pursue research. You know, you have to pay for that. You know, paying for certifications, then they are paying for their own travel to races to support athletes...then to ask them to pay for access to PubMed or something like that, they are not going to do it. At the same time, a lot of those things, such as new papers or meta-analysis's have a lot of value for coaches. (C1)

Several participants commented on how their comfort level with the Internet varied with their age and influenced how often they would use the Internet and online forums. For instance, one of the 'younger' participants remarks how the Internet plays a role in his coaching development:

I'd probably say that is the kind of learner I am...sort of self-directed. So if I'm interested in a topic, I'll spend a bunch of time researching that topic in that way. I guess you could say that with my age, the Internet has played a big part in my own education because there's a vast library on the web available wherever you are and I spend a lot of time researching like that. (C4)

However, two of the more senior participants commented that they may not be as "technologically saavy" (C5), and sometimes found themselves outside of their comfort zones. Though they may not be at ease with using the Internet, for one participant, the reliability of the Internet content is an issue. He commented that he does not use the Internet for coach education, "because I want to make sure that the information I'm

1133 getting is actually reliable. I think the resources I have...I'm more comfortable with them
1134 as far as my perception of them as being a little bit more reliable". (C7)

1135 *Expectations Regarding the New Program*

1136 Generally, all of the participants were aware of the vision and direction of the new
1137 competition-development program. This is because throughout the development of the
1138 program, Tim had the chance to meet with the coaches on several occasions and would
1139 comment on different aspects of the new program, such as a focus on on-going learning
1140 and professional development. One participant commented, "I think it is starting up the
1141 way it has to, so overall, I am pleased with the way Triathlon Canada is approaching the
1142 new NCCP" (C8). However, there were some participants who voiced some concerns
1143 regarding some of the practical aspects of implementing such an innovative program. For
1144 example, one participant commented that he "understands the idea of comp-dev. The
1145 logistics...[but], how are we actually going to see this work? Is it really going to
1146 happen?" (C1). Similarly, another participant remarked that the relatively young nature of
1147 Triathlon coaching makes it difficult to get qualified individuals who can actually make
1148 meaningful assessments on coaching competencies.

1149 The problem that we have in Triathlon is that being such a young sport, who can
1150 evaluate the coaches that know the sport well enough to make meaningful
1151 evaluations to Triathlon? Like there is definitely a huge value from somebody
1152 who comes from a different sport to look at past experience or to look across the
1153 sports at planning practices because a lot of that stuff is generic, but you know,
1154 we're are own sport and there are specific challenges that you need to know about
1155 in order to evaluate. (C4)

1156 Apart from questions of a practical nature regarding the new program, all of the
1157 participants expressed a willingness to become involved and had high expectations for
1158 how the program could have a positive influence on their coaching practice. The
1159 participants general expectation for the new program was that it would highlight areas in
1160 their coaching practice that could use more on-going learning and professional
1161 development. For example, one participant stated, “it may highlight things that I don’t
1162 necessarily do well. But I think that is good and it will make me go through the process”
1163 (C8). When coach 8 was asked to elaborate, he commented:

1164 I think that some of it is in the performance planning, tracking, and adjusting...I
1165 have developed some programs and once you develop programs, you tweak as
1166 you go along and it is a lot easier to do that. However, with Triathlon, it is three
1167 times more complicated and so there is a lot more to learn and a lot more to adjust
1168 as you go along. So I think it is going to be an interesting process and I’m looking
1169 forward to it.

1170 Several participants commented that submitting the portfolio upon entry into the
1171 new program was a valuable tool for them to begin reflecting about their coaching
1172 practice. For one coach it was a chance to, “formalize a lot of the things that I do
1173 informally now” (C4). Similarly, another participant commented that the process of
1174 drafting the portfolio was a good chance for him to reflect on his coaching practice.

1175 It was a good time for reflection because so many times in coaching, you have so
1176 much information and you work a lot and you don’t take the time to reflect on
1177 your job and so this portfolio is a great time for reflection on my job. (C2)

1178 However, some others found the process of drafting a portfolio stressful. For
1179 example, one participant commented on how the portfolio would take a lot of time to
1180 draft and because he wanted to send a quality document, he felt anxious. He states, “I was
1181 really...not afraid, but I think it was a big deal of time and I was really busy and I didn’t
1182 want to give crap too, you know, I wanted to send something good” (C9). Another
1183 participant felt that the instructions were vague for submitting the portfolio, so he went
1184 with the strategy of, “I’m going to put in more detail rather than not enough” (C7).

1185 In summary, the first section of the results presented the background and
1186 perspective of Tim and how he designed the new program. Furthermore, the biographies
1187 of the full time and part time participants were presented, highlighting their formal
1188 education, occupations, coaching certifications, and their previous athletic and coaching
1189 experiences. The second section of the results highlighted four formal learning situations,
1190 two non-formal learning situations, and three informal learning situations that were
1191 identified by participants. In part 2 of the study, the results of an interview with Conrad
1192 will be presented after he finished being evaluated for the Design a Sport Program
1193 outcome. In addition, the perspectives of the two evaluators will be presented. The
1194 following section begins with an update.

*Part 2**Update*

Due to the fact that there were several unanticipated changes with regards to the implementation of the new coach education program, it is necessary to provide an update. Tim indicated that he had been focusing on his new position, which required quite a bit of regional travel. Due to that fact, he has not been able to devote as much time to leading the coach education training program for Triathlon Canada. However, he indicated that he still communicated regularly with the volunteer board member who was now responsible for leading the program, especially when it came to actual design components that may have an impact on the coaches. Similarly, six months had passed between Conrad's first interview, therefore, it is necessary to give an update as to what he has been doing during this time. Approximately one month prior to the interview in part 1, Conrad had been hired as a full time triathlon coach and program director and focused on starting a full time program. Furthermore, he immersed himself in coaching practice, which involved multiple roles including various administrative duties, program directing, and coaching. He remarked that there are not a lot of informal learning opportunities due to the fact that he was now the senior coach in the province and that he feels somewhat isolated. He commented:

Basically, it's just been getting down to work. A lot of figuring things out and trying new things and conversations and stuff like that happened when I did my internship. This has been a lot more work, you know, some administrative support, getting training set up across the province, writing rules, some funding stuff, figuring out camp budgets, and so there is some time for reflection and

1224 learning new tricks...but what I'm doing now is that I'm the senior coach in the
1225 province and I don't work with anybody else here in the center, so it's a little
1226 more isolated.

1227 When he was asked about how much progress he had with regards to the new
1228 coach education training program, he remarked that he had submitted the portfolio, but
1229 that nothing else had really progressed. However, he commented that in January of 2008,
1230 he was asked by the volunteer director of coaching for Triathlon Canada to become
1231 involved with the competition-development pilot application with the CAC: "I was
1232 involved with putting together the pilot application to the CAC, but I mean...I just
1233 chimed in with a few ideas here and there". He was asked to attend a meeting between
1234 Triathlon Canada and CAC representatives and it was during this time that he became
1235 aware of some of the conceptual disagreements between what the CAC wanted, versus
1236 what was being proposed by Triathlon Canada's new program. For example, he stated:

1237 That the key piece was going to be this triangulated debrief and we really opened
1238 up a description of a triangulated debrief, so that it didn't have to be the two
1239 evaluators and a coach, it could be the evaluator, the coach, and literature, or
1240 athlete feedback, or any other third piece could be part of the evaluation.

1241 Anyways, what the CAC wanted was very concrete, step-by-step, 'here's how
1242 we're going to do it', workbooks for every module, and so it started to look very
1243 much like the old system.

1244 At the end of the meeting, the CAC and the Triathlon Canada committee agreed
1245 that the new program would go forward as a 'pilot' for three coaches going through the

1246 Design a Sport Program outcome of the evaluation stage. For instance, Conrad
1247 commented:

1248 What it boiled down to in the end was that we were going to pilot myself and two
1249 other coaches and go through an open-ended debrief, see where the deficits are
1250 and come up with an individual plan for each person as opposed to picking from a
1251 workbook afterwards...so we are going to go that route and it'll probably be more
1252 work intensive, but be more valuable. So we got pilot approval for that.

1253 *Matthew the External Evaluator*

1254 At the time of the interview, Matthew was a 46 year old, self-employed
1255 professional with an extensive academic background including a PhD in Sport Sciences
1256 from a foreign sport university and dual Master's degrees in Biology and Education.
1257 Matthew remarked that he had studied a wide variety of fields because, "I wanted to keep
1258 my background open...like I always wanted to see the point behind the point". He
1259 commented that during his studies that he was heavily influenced by the philosophical
1260 writings of Immanuel Kant and the book *Kant and the Platypus: Essays on Language and*
1261 *Cognition* by Umberto Eco:

1262 [The] platypus is an interesting phenomenon that challenges our understanding
1263 and our knowledge and for me Immanuel Kant challenged knowledge and the
1264 way we look at things and a major part of my studies was influenced by his work.

1265 He also remarked that the platypus became a personal symbol because "it
1266 represents the diverse background of what we do here, but it also represents the
1267 contradictions that we often see in people". Apart from his strong academic background,
1268 he indicated that he is an active athlete and coach in a variety of different sports. For

instance, as an athlete, he has been involved with racing triathlon, cycling, swimming, and water polo, though recently he transitioned to just training triathlon and cycling recreationally. He has also been involved with coaching triathlon and has taken the competition-introduction context certification. It was during this certification process where he was exposed to the shift towards competency-based programming in the NCCP. His wide range of experiences in academia, high performance athletics, coaching, and therapy allow him to “cross the fields all the time”.

Matthew began his relationship with Triathlon Canada when he was approached by a group of high performance athletes to help them fill in an application form to start a regional Triathlon Canada training center. His role during the application process involved “[analyzing] qualification times for different age groups, for men and woman, like U23, 23 – 30, and so on, and calculated some times for biking, for swimming, and running”. During the application process, he came into contact with a Triathlon Canada board member who advised him to get in contact with Tim (then in the role of high performance director). Tim and Matthew had some back and forth discussions on a variety of topics and as he explained:

Tim saw that I was sitting here and [that] I’m pretty isolated...so to give me more legitimacy and to keep me involved with the sport...given my background he was of the opinion that it would probably be good to have me on board.

Evaluation Process

The evaluation process started when Conrad logged on to a special website managed by Triathlon Canada and performed a self-evaluation of his portfolio. Though he was the first participant to go through online self-evaluation, he explained that he did

1292 not find it difficult, though he needed to re-read some of his portfolio material. For
1293 instance, he stated, “it was fine and easy to use, although it was some time since I read
1294 my stuff...but yeah, I think what I put on the self-evaluation was an accurate
1295 representation of what I think I did”. Conrad also indicated that he did not receive any
1296 instructions regarding how to fill in the self-evaluation other than answering honestly and
1297 if there were any questions, to contact Tim. Performing the actual self-evaluation
1298 consisted of “[going] on to the website and [moving] all the sliders as I went through my
1299 project again” (Conrad). When asked whether he found the self-evaluation helpful, he
1300 commented:

1301 Yes and no. If I had never been involved with the comp-intro evaluations, then
1302 probably, like there’s not a comp-intro evaluation that I do where I don’t reflect
1303 on what I’m doing in my own coaching practice. So I feel like I’m doing self-
1304 evaluations all the time.

1305 From the evaluators’ perspective, they began the evaluation process by reviewing
1306 the submitted portfolio material on their own first before engaging in a phone
1307 conversation to discuss the portfolio. When Matthew was asked about how he started the
1308 evaluation process, he commented:

1309 I started by going through Conrad’s material...on my own. I then went through
1310 the different criteria’s and then Tim and I had a phone conference for about an
1311 hour and half and so I gave him my impressions and explained where there were
1312 strengths and areas where I would like to see, at least more awareness.

1313 Similarly, Tim also remarked about beginning the evaluation process on his own
1314 and that the phone call was an opportunity for both evaluators to share their individual
1315 perspectives on the submitted portfolio material.

1316 It was a really rich discussion...so we basically went through the different criteria
1317 and evidences that relates to the Design a Sport Program and...we basically
1318 restricted ourselves to whether Conrad fell below or met standards or whether he
1319 exceeded the standards...So yeah, I think we kept it simple which I think was
1320 useful...and so there was some really great discussion around Conrad, but not
1321 from an evaluation perspective, but by positioning Conrad as a coach in terms of
1322 identity, philosophies, and approaches etc., and so that to me was a really
1323 important component because what we wanted to do was ensure that we were
1324 helping to inform Conrad in terms of providing another source of critical
1325 information on his coaching.

1326 Once both evaluators went through the evidences and criteria, they both agreed
1327 that debriefing with Conrad would be a good opportunity for follow up questions to
1328 determine competency, although Tim stated:

1329 We wouldn't make any final determination on the evaluation of the different
1330 evidences and criteria until I had an opportunity to follow up with Conrad and
1331 gain more information and understanding through asking some additional
1332 questions that both Matthew and I had constructed during our discussion together.
1333 So it kind of felt like that there should be no final evaluation until there was an
1334 opportunity to discuss our feelings and perceptions etc., and then once we had the

1335 debrief, I then went and made our final evaluation, which is the formality of
1336 saying 'yes', he is competent in Design a Sport Program.

1337 *The Debrief*

1338 The debrief consisted of an in person meeting between Conrad and Tim. It was an
1339 opportunity to find out more information based on questions that Tim and Matthew had
1340 constructed together, specifically in areas where "Conrad sets himself pretty high and we
1341 didn't feel it was as high as Conrad had assessed and that was the stuff we could really
1342 spend some energy in the follow up" (Tim). Conrad commented that the debrief was a
1343 good experience and that he and Tim had spent time discussing different parts of his
1344 portfolio material, such as writing to his strength in physiology. For instance he states "so
1345 the evaluation was good...the external evaluator's comment was that this guy is a
1346 physiologist doing a coaching program...so I obviously clearly wrote my portfolio to
1347 what I knew and so my background bias is towards physiology" (Conrad). However,
1348 Conrad also notes that the content of what he submitted in his portfolio was written
1349 almost two years ago and that it was out of date and he had made changes to his coaching
1350 practice.

1351 My portfolio was written mainly in 2006 and early 2007 and so looking at a year
1352 and a half ago, a lot of things have changed since then. I wouldn't disagree with
1353 most of what I had written, but the way I coach is a little different than what I put
1354 down in my portfolio. (Conrad)

1355 Many of the questions that Tim and Matthew constructed seemed to involve areas
1356 where Conrad did not write about in his portfolio. Tim notes that the debrief serves as an
1357 opportunity for Conrad to expand on what he had written:

We got into a discussion with Conrad and you could really see that it was really a lived experience component that was leading it and so that explained a little bit why he didn't include that information in his written materials. So because of Conrad's strong academic past, he felt that 'well I can't find any literary support for that or for my ideas'...so it wasn't necessarily new information, it was information that Conrad didn't write about. But in the discussion that happened around it kind of validated it and so it validates it for us and for Conrad. So both Conrad and I come out of there with a more clear position about it, saying 'yeah, here's a great rich discussion stemming from the evaluation' and it makes the evaluation an actual learning conversation and not just an assessment.

Tim also remarked that aside from the follow up questions and following the evidences and criteria of the outcome, there was no set guidelines about how to perform the debrief. He stated that based on his past professional experience, it was easy to let the discussion happen. For example he states, "well we just let the conversation happen. You know, I've debriefed with people for years as a professional and so I didn't feel there was any need for me not to bring my professional self to that moment" (Tim).

Relationships

The strength of prior relationships was an important factor during the evaluation and debrief. For example, Matthew did not want to be involved in the debrief because he remarked that he would feel uncomfortable being the only person providing feedback to Conrad because he did not have a prior relationship with him. He stated, "Conrad is not familiar with me as a person, whereas Tim knows a lot of the other coaches, so it would be better if he sort of provides or gives them feedback". Furthermore, he adds that he can

1381 provide better feedback only when he has had an opportunity to build rapport with the
1382 participants in the new program.

1383 Language is very important. Even if you are able to say the right thing at the right
1384 time, but if you are not well known [to the coaches], then you have to be careful.
1385 It's better to first get in contact with the coaches and then come to a certain...well
1386 build a connection first.

1387 This seems to be the case with Tim and Conrad, where they both spoke about how
1388 easy it was to speak to each other due to the strength of their prior history and
1389 relationship together.

1390 Well, I thought it was pretty easy because he [Tim] was my master coach when I
1391 was at the NCI and now I am able to drop by to his office once every four weeks
1392 and we've always had like a 30 minute chat up to two hours...so we can have a
1393 very quick conversation and cover a ton of topics because we have fairly similar
1394 philosophies...and in terms of concepts and stuff we can just hammer through
1395 some stuff really quickly and so we communicate well...so talking to him is easy.
1396 (Conrad)

1397 However, both Tim and Conrad agreed on the importance of having an external
1398 evaluator who did not have a long prior relationship with either of them.

1399 We both agreed that it was good having an external evaluator that doesn't know
1400 me and that I have not met. I mean it is such a small community and I'm already
1401 involved with the coaching education and so even though Tim keeps me honest,
1402 there's a relationship there and it can be easy to waffle around and not really do
1403 an evaluation. (Conrad)

1404 Tim also spoke about how the evaluation and depth of the follow up debrief may
1405 differ between an individual coach he has a prior history with, versus a coach he does not
1406 know as well, but is participating in the new program.

1407 With a couple of the other coaches there isn't really much of a history and so I
1408 wonder if I'll be able to...well I won't be able to bring as much of that history to
1409 the kind of debriefing opportunity. It will really be more of...it will be very much
1410 a discussion constructed in the present. In other words, if I had a coach that I
1411 really don't know that well, I can only respond to what is shared in the moment of
1412 time that we are having that discussion. Whereas if I was talking to Conrad or
1413 Shane, I can actually bring forward a sense of history based on my prior learning
1414 and relationships I've had with those coaches over the years...So in fact, some of
1415 the evaluation may differ based on how well I may know the coach, if I have a
1416 history with the coach etc., but I'm not going to apologize or change the potential
1417 richness that can be had in the debriefing with those coaches, just because I have a
1418 prior relationship with them. I just have to make sure with the two or three
1419 coaches that I don't have a prior relationship with, that I'm really, really listening
1420 carefully to what they are saying and I may have to ask more questions because it
1421 won't be so simple for me to draw from experiences.

1422 *What is gained at the End of the First Evaluation?*

1423 Each participant seemed to have a different goal for the evaluation process, but
1424 they were not incompatible. For Conrad, his focus was on getting feedback for the
1425 purpose of informing his coaching practice to become a better coach. For example, he

1426 stated “the debrief was good because I’m looking to get better”. He goes on to explain his
1427 perspective:

1428 From my perspective and the perspective of a lot of the other development
1429 coaches...the feeling is that we are competent enough and we are not bad coaches
1430 and so we are not worried about looking incompetent or not being selected for a
1431 team or stuff like that, but what we are all interested in is just getting better”.

1432 Furthermore, Conrad indicated that he does not mind taking his time during the
1433 evaluation process and that any feedback he can get from either Tim or Matthew is worth
1434 being patient for.

1435 I mean it’s worth the time and the effort. Like we could blow through this really
1436 fast on a much more superficial level, but what’s the point? Ultimately, I want to
1437 run better programs and to be more competent in what I am doing.

1438 For Tim, the first evaluation was a good opportunity to see if the philosophy and
1439 guiding principles of the new program were actually being followed. He remarked that he
1440 felt positive about adhering to the philosophy of the program, specifically during the
1441 debrief session with Conrad.

1442 Well I think we did a good job. I was actually reflecting on that after and I felt
1443 positive about the emphasis that was placed on it [the debrief] being an
1444 opportunity for learning for both involved...I’ve learned a bit from reading
1445 Conrad’s material and I learned a bit just having a good discussion with him as
1446 well...it could be said that they were developing through the process and that was
1447 always the intent. That it was really setting up a way of working that would go
1448 beyond the qualification component of the comp-dev stream.

1449 Indeed, Matthew echoed the remarks of Tim when he remarked that he had
1450 learned through participating in the evaluation. For instance, when asked about what he
1451 had learned during the evaluation, he stated, “[Conrad] had a lot of literature and so what
1452 I learned was the names and date of publications for some key authors and some
1453 interesting work concerning testing modules and testing procedures and all that”. He also
1454 felt that he had provided what Tim was expecting from him during the evaluation
1455 process, which was “somebody who is independent and looking in from the outside or
1456 looking at it with my experience and background”.

1457 *Observations Following the Evaluation Process*

1458 There were five general observations that Tim indicated he would follow up on or
1459 try to change before the next coach goes through the evaluation of the Design a Sport
1460 Program outcome. The first observation was that some of the evidences and criteria for
1461 the Design a Sport Program were not working as intended.

1462 We may change a couple of the evidences because I felt as we worked through
1463 them, well a couple of them were stinkers. You know, I read through them and
1464 I’m thinking ‘what the heck was I getting at here or what is this actually telling
1465 us?’ We will probably re-write a couple of the evidences and criteria.

1466 The second observation had to do with the numeric ‘toggle’ scale that the coach
1467 controls while doing their self-evaluation (see Appendix H). Tim remarked that the
1468 original ‘slider’ approach was not working as well as he had hoped for and is now
1469 focusing on an evaluative approach of either: below expectations, meets expectations, or
1470 exceeds expectations. With regards to changing the visual sliders on the website, he
1471 stated:

1472 So we really tried to organize our thinking around those three areas because there
1473 was no point in starting to...even though we've used that visual analog scale
1474 approach on the sliders on the web, I'm not so sure it's serving us as well as I
1475 anticipated and I think I will move that towards kind of a three component
1476 approach.

1477 Conrad also commented on the numeric toggle scale and suggested that having
1478 the numeric scale was not clear with regards to determining whether the material in his
1479 portfolio met the evidences and criteria for the outcome.

1480 I think Tim is considering switching the scale from percentile to needs
1481 improvement, meets expectations, or above expectations. Like I said to him that I
1482 was sliding the scales across and I couldn't tell the difference between 59% and
1483 69%.

1484 The third observation made by Tim was trying to do the debriefs in person, when
1485 possible. Even though he was aware that this will not always be the case, he stated that
1486 the rich environment created by a face-to-face debrief is always better:

1487 We may not always be able to debrief in person, but when possible, I think it is a
1488 richer environment than trying to do it on the phone, but for sure it won't always
1489 be possible. So that's another observation...so that's something to try to keep
1490 doing. (Tim)

1491 A fourth observation made by Tim was that some of the portfolios submitted may
1492 not contain enough material and commented that he may have to ask for more material to
1493 be submitted in order to make a meaningful evaluation:

1494 I think with a couple of coaches who are in this program, we may find that we
1495 don't have enough information and so when we went through this kind of
1496 portfolio submission to say 'are you ready for this context' we have some coaches
1497 who we say 'yeah, definitely, you are ready', but we may go back to a couple of
1498 those coaches and say 'I think we are going to need a bit more information than
1499 you have provided'. Whereas in the past, we might have said that was ok, now we
1500 might ask for a little bit more.

1501 The last observation made by Tim was that triangulation during the evaluation
1502 may not occur across all outcomes because of the practical nature of having more than
1503 two evaluators performing the evaluation and that he does not want to be restricted by
1504 one form of doing evaluations. For instance, he stated:

1505 I don't know if the triangulation will be achieved in all circumstances, simply
1506 based on the practicality of what we would be facing...but to suggest that we
1507 would achieve triangulation across every single evidence, well then I would say
1508 for sure 'not' and I would argue that for some of the evidences that one person
1509 should be able to suffice...and so we are always going to try to attempt to achieve
1510 or secure as much information as possible, but I don't think that we should restrict
1511 ourselves by using the word 'triangulate' because if we can't in all cases, than I
1512 don't think we should be restricted by it.

1513 *Next Steps*

1514 The next steps with the implementation of the new program involve moving
1515 through the next six outcomes of the evaluation stage. For Tim, this involves trying to get
1516 the rest of the participants through the Design a Sport Program outcome before moving

1517 on to evaluating the next outcomes in the evaluation stage of the new program, because
1518 they are situated within a practical – training camp environment.

1519 I think we need to finish the Design a Sport outcome because what we envisioned
1520 with the next set of outcomes is that it is really around a training environment and
1521 we are likely going to invest a lot of time, energy, and money, in trying to situate
1522 that in a training camp of some sort.

1523 Matthew also comments on being involved with the next steps of the new
1524 program where he indicates that there is an effort to arrange the next set of evaluations
1525 around a training camp. He states, “we are trying to arrange a training camp and most
1526 likely [Conrad] will be on my side and be evaluated by me...so evaluate them on the next
1527 outcomes and observe how they work with their [athletes]”.

1528 Conrad indicated that he was not clear about his next steps in the new program
1529 and speaks that it is mainly because of the busy upcoming race season and lack of
1530 personnel to do the evaluations for the next outcomes.

1531 Most likely it will be, well here’s the challenge, it will be junior nationals, which
1532 is August 15, but Tim will be in Beijing. So the bonus with doing this [type of
1533 program] with such a small group is that you actually get to share best practice
1534 and develop this community and a really strong commitment to some shared
1535 goals, but the downside is that if one person can’t make it, then you are screwed.

1536 In summary, part 2 of the study presented an interview with Conrad, who was the
1537 first participant to begin the evaluation process. In addition, two additional interviews
1538 were presented with Tim and Matthew, both evaluators who had participated in the
1539 evaluation process. Based on the content of the interviews, it was found that both Conrad

1540 and Tim found the debrief an important part of the evaluation process. Furthermore,
1541 Conrad and Tim spoke about how rapport and a previous relationship added to the depth
1542 of the debrief session. In addition, both Conrad and Tim spoke about the value of having
1543 Matthew brought in as the first external evaluator of the new program. Part 2 ended with
1544 observations about the evaluation process and the potential next steps with regards to the
1545 implementation of the new program.

1546

CHAPTER 5

Discussion

The purpose of this study was to document Triathlon Canada's implementation of its new coach education training program in the competition-development context. In part 1, Tim, the former high performance director of Triathlon Canada was interviewed to get his perspective on developing and implementing the new program. In addition, using Jarvis' (2006a) conception of a biography, the 10 participants in the new program were interviewed in order to get a better understanding of the experiences and qualifications they had prior to their entry into the new program. In part 2, interviews were conducted with Conrad, the first participant of the program to start the evaluation process, as well as the two evaluators, Tim and Matthew, to get their perspective on the evaluation process. The following discussion will be separated into four sections based on addressing the research questions of the study.

Research Question One

The first research question focused on how Triathlon Canada's competition-development program has been developed and to what extent does it respect the key principles of lifelong learning? It is important to remember that Triathlon Canada's new program was developed within the boundaries of the new NCCP. One of the main characteristics of the new NCCP is shifting from a novice-to-expert continuum toward sport specific contexts for coaches (CAC, n.d.a). Focusing on the needs of coaches within a similar sport context repeats a trend in coach education where the traditional, large-scale multi-sport approach is being abandoned (Werthner & Trudel, 2006, Trudel & Gilbert, 2006). Included in the new NCCP's shift are five core competencies (valuing,

1570 interacting, leading, problem-solving, and critical thinking) that coaches need to
1571 demonstrate, regardless of which coaching stream or context they are participating in.
1572 The core competencies are made concrete through the demonstration of eight specific
1573 coaching outcomes (make ethical decisions, provide support to athletes in training, plan a
1574 practice, support the competitive experience, analyze performance, design a sport
1575 program, manage a program, and sport-specific outcomes). Since coaches in each
1576 coaching stream and context need to demonstrate these competencies, a specific
1577 curriculum needed to be developed and it was decided that a problem-based learning
1578 approach would be used to deliver the curriculum content (CAC, n.d.b). The evaluation
1579 process consists of coaches demonstrating their competency on a number of pre-
1580 determined outcomes (Savard & Brunelle, 1998). As an example, within Triathlon
1581 Canada's new program, there are seven pre-determined outcomes that coaches have to
1582 demonstrate their competency in, and 'Design a Sport Program' is one of them. Based on
1583 the guideline of determining which competencies were most relevant to their respective
1584 sports, the CAC asked each national sport federation to determine and develop a
1585 curriculum that was specific to their sport context. The new NCCP appears to be an effort
1586 to offer coaches programming that will better meet their needs (specific to their coaching
1587 contexts and sport), creating a more coach-centered program. However, there is no
1588 indication within the CAC's documents or website about how the new NCCP will
1589 contribute to the lifelong learning of coaches. This is not surprising considering there
1590 have been very few studies that try to link qualifications systems and lifelong learning,
1591 though the OECD (2007b) study is an exception.

1592 What is particularly interesting about Triathlon Canada's new program is that the
1593 former high performance director (Tim) wanted to develop a program that was more
1594 coach centered and went beyond what was expected by those in charge of the new NCCP.
1595 There were several ways that he did this. The first is the portfolio required from the
1596 participants upon entry into the new program. Tim's comments during part 1 indicated
1597 that the portfolios would be a unique way for the participants to demonstrate readiness to
1598 participate in the competition-development context. However, while the portfolio may
1599 have accomplished this task, the same portfolio content was also used as part of the
1600 evaluation of the 'Design a Sport Program' outcome. Comments by Tim after his
1601 evaluation with Conrad in part 2, suggested that he will likely ask for more material from
1602 some of the participants in order to be able to complete a meaningful evaluation.
1603 Furthermore, he commented that Conrad's portfolio set a reasonable standard in terms of
1604 portfolio content. Yet, if Conrad's portfolio is used as a template for the rest of the
1605 participants, there is a risk that the portfolios may start to become similar and begin to
1606 move away from the uniqueness of what a portfolio can be. Similarly, if the portfolios are
1607 structured after the evidences and criteria for the Design a Sport Program outcome, then
1608 there is a risk of the portfolios beginning to look the same in terms of structure, format,
1609 and types of evidences included (Torrance, 2007). The results also demonstrated that Tim
1610 needed to be clear regarding the expectations for the portfolio material, first as
1611 demonstrating readiness to participate in the competition-development context and
1612 secondly, that the same portfolio material will be evaluated in the first outcome of the
1613 evaluation. As an example, if policy 7 (make qualifications systems transparent) and
1614 mechanism 20 (improving information and guidance about qualifications systems) are

used, then it becomes clearer how the portfolio's can be conducive to lifelong learning. Despite the risks of creating generic portfolios, they should be incorporated into coach education training programs, as they are one way of understanding the uniqueness of each coach.

Another aspect of the new program that addresses several elements of lifelong learning is the de-emphasis on evaluation. This is important because the evaluation process can affect a learner's willingness to learn (OECD, 2007b). For instance, "some people are driven to learn and gain qualification(s) and the rewards associated with the qualification. Others are fearful of failing to meet the requirements of the qualification and are deterred from entering qualification-based learning programs" (OECD, 2007b, p. 51). By focusing on learning and de-emphasizing the evaluation, the participants may take initiative through self-direction and create their own learning situations, which may occur in a variety of settings, including non-formal and informal learning situations (Werthner & Trudel, 2006; Trudel et al., in press). Thus, the evaluation process does not consist of standardized criteria, but is one occasion to discuss through a debrief session, what the coach knows and can do, but also what the coach needs to improve on to develop the specific knowledge or competency that is being evaluated in the outcome. Accordingly, with this approach, there is not one special curriculum developed for all the coaches in a specific context (e.g., triathlon coaches in the competition-development context). Each coach will progress through different, individualized learning situations based on their previous experiences, which is in line with lifelong learning.

Humphrey, Wechsler, and Hough (2008) demonstrated that those who design a program influence its content. This is particularly true with regards to Tim. His academic

background includes a PhD in Education that focused on the practice of sport psychology consultants. Furthermore, he co-authored a book with another eminent sport psychology consultant on the key elements of developing and maintaining perspective in sport and life. His overall academic experience, combined with his own work as a sport psychology consultant, developed an existential-humanist orientation towards sport psychology delivery, which can be characterized as caring, authentic, and empathetic (Friesen, 2008). Accordingly, given his unique biography and humanist orientation towards sport, it is not surprising that he developed a program based on the needs of triathlon coaches. Furthermore, due to the fact that Tim has such a unique biography, it is unlikely that another high performance director from a different sport could create a program that is similar to Triathlon Canada's program. However, this has the potential to create some difficulties for the CAC from an administrative perspective because they cannot manage the material being learned by the participants in the program.

Research Question Two

The second research question aimed to answer what were the main characteristics of the biographies of the triathlon coaches' participating in the competition-development program? Jarvis (2006a) suggests that it is important to consider a person's biography because this can influence how an individual may approach learning. Not surprisingly, the results demonstrate that the participants have all come to know and practice coaching triathlon through a variety of means, all of which was informed by their biographies. The average age in years for the participants in the full time group was 36.2 years compared to 38.4 for the part time group. This falls between the average age ranges of 36 years for developmental coaches and 40 years for elite coaches (Trudel & Gilbert, 2006). On

average, the participants have been coaching triathlon for approximately 11.75 years. Though this closely aligns with the 13 average years elite coaches have been practicing (Trudel & Gilbert, 2006), it is quite small compared to the 23.4 average years of coaching experience stated in another study that attempted to chart the developmental paths of coaches (Gilbert et al., 2006). The discrepancy between average years of coaching experience could possibly be explained by the young age of triathlon as a sport. Considering that the participants' fall between the average age ranges of development and elite coaches and have been coaching for an average number of years that resemble elite coaches, it could be stated, based on this criteria, that the participants are 'elite-development' coaches. This characterization is not surprising considering that for Tim, the nature of triathlon coaching in the competition-development context required working with athletes who are crossing from the specializing years to the investment years of athletic development (Côté, 1999; Durand-Bush & Salmela, 2002). Typically, coaches working with athletes in the specializing years are individuals who work in the development context, whereas individuals who work in the investment years usually work in a high performance context (Côté, 1999).

Due to the large amount of time required to develop elite-development athletes, balancing a work – family relationship can be complex (Edy, Casper, Lockwood, Bordeaux, & Brinley, 2005). For instance, a work – family relationship within a sport context is challenging considering that most occupations in this context require long – non traditional work hours and extensive travel (Dixon & Bruening, 2005). This is particularly relevant for several participants in this study, where 7 of the 10 participants have family commitments. Those who have a family commitment may be limited in

terms of the amount of time they can devote to learning and professional development and the type of learning situations they can participate in (Lacroix, Camiré, & Trudel, in press).

The biographies of the participants also revealed a wide variety of rich athletic and coaching experiences in triathlon and/or triathlon's sub-disciplines. Findings from this study coincide with previous research that suggests previous athletic experience in one's sport is important (Erickson et al., 2007; Gilbert et al., 2006). The participant's biographies also reveal the prevalence of endurance based coaching experiences as well as the variety that is characteristic of triathlon's multi-sport culture. With a wide variety of coaching experiences comes a wide variety of old NCCP certifications. The participants of this study hold numerous NCCP certifications and confirm that Canada has an established formal coaching certification program (Erickson et al., 2007). Interestingly, studies within the youth and high school contexts have demonstrated that coaches have the minimum NCCP certifications required to coach in that context and they usually have certification with one sport (Lacroix et al., in press; Lemyre et al., 2007; Wright et al., 2007). However, the participants of this study have multiple certifications in multiple sports and these certifications are at a fairly high level in the old NCCP (e.g., level 3). This is quite interesting considering that in the old NCCP, higher NCCP course levels usually corresponded with level of competition. It is noteworthy that the value of having NCCP certifications is mixed; some of the participants found value holding the certifications, whereas others did not value it as much. This nuance could be explained by the unique biographies of the participants which demonstrates that while some may value the training received in formal learning situations, others found that it

1707 had a relatively low impact on their actual coaching practice when compared to non-
1708 formal or informal learning situations. This perception of formal coach education
1709 coincides with past research which suggests that coaches' value some learning situations
1710 more than others (Gilbert et al., 2006; Nelson et al., 2006; Werthner & Trudel, 2006).

1711 Another characteristic revealed by the biographies of the participants is that they
1712 are well educated. All of the full time coaches have at least an undergraduate degree in
1713 physical education, which coincides with past research that suggests a prevalence of
1714 undergraduate degrees in physical education with elite-development coaches (Erickson et
1715 al., 2007; Trudel & Gilbert, 2006). It is noteworthy that two of the full time participants
1716 have Master's of Science degrees in exercise physiology, which is particularly suited to
1717 coaching an endurance-based sport, such as triathlon. In addition, six of the participants
1718 have either graduated or are currently attending the NCI. Suffice it to say, that these
1719 coaches are very well educated, more than many coaches. Research indicates that those
1720 who are well educated have an increased capacity to learn on their own (Canadian
1721 Council for Learning [CCL] 2007a; OECD, 2007b), and are better equipped to have the
1722 required knowledge to understand more information on the Internet or other sources
1723 outside of formal situations. For these reasons, the participants of the program are likely
1724 better prepared to succeed within a lifelong learner perspective.

1725 Apart from formal learning situations, the participants also identified conferences
1726 and workshops as valuable opportunities to learn from keynote speakers and other
1727 coaches, both inside and outside the sport of triathlon. Conferences and workshops
1728 provided opportunities to meet and interact with these coaches, often in between the
1729 conference sessions. In addition, some of the participants spoke about their interactions

with a PET. For instance, the participants acknowledged and valued the learning that resulted from the discussions and interactions with their PET, however some participants may have a problem with accessibility, due to the fact that not every coach had access to a PET. Though some research has indicated that a multidisciplinary PET can have a positive influence on athletic performance (Reid, Stewart, & Thorne, 2004), it is still unclear how the PET facilitates the learning of a coach; therefore further research is required to determine the important roles the members of a PET can play in helping a coach learn to practice triathlon.

Mentorship was another informal learning situation that many of the participants spoke about. Interestingly, several of the participants had mentors who were not traditionally 'triathlon' coaches, but coaches of triathlon's sub-disciplines. This is likely due to the young nature of the sport of triathlon and possibly contributed to the lack of mentorship opportunities specifically within the sport. Nevertheless, the participants valued learning from mentor coaches; both inside and outside of the sport of triathlon and this coincides with past research that addresses the important roles mentor coaches could play in coach education (Cassidy & Rossi, 2006; Cushion et al., 2003; Trudel & Gilbert, 2006).

Although this was a small group of coaches, there was a sense of being part of a CoP. However, it is unlikely that this community of triathlon coaches can be classified as a true coaches' community of practice (Culver & Trudel, 2008a, 2008b). There are some characteristics of this group of coaches that could classify them as an informal knowledge network, such as sharing an aligned vision within the social learning structure that is Triathlon Canada (Culver & Trudel, 2006). Yet, many of the participants also interact

with coaches inside and outside the sport of triathlon (such as a swim coach or cycling coach), which could classify them as a network of practice since they may not know each other personally and may communicate primarily through the Internet, such as through online forums (Culver & Trudel, 2006). It is likely that this group of triathlon coaches are somewhere in between a community of practice and an informal knowledge network. For instance, the distance inherent with coaching in Canada makes it difficult to have sustained engagement between coaches, yet the participants of the study seemed to have developed a nice system of interacting via conference calls and sometimes even over online forums and websites. This is unique because other studies have shown that coaches rarely use the Internet to interact or share information (Lemyre et al., 2007; Wright et al., 2007).

Learning from the workplace was also indicated as a resource for some of the participants, particularly those in the part time group. This may be explained by the fact that the full time coaches in this study are usually working alone where they do not have the advantage of working with other coaches and have to rely on personal agency to seek out learning opportunities (Rynne et al., 2006). In fact, this study demonstrated that it is the part time coaches who have taken advantage of training programs offered by their employers and found ways of transferring their occupational knowledge into their part time coaching practice. For instance, three of the part time coaches indicated that they intentionally took workshops or had participated in professional development opportunities organized by their employer because it could directly translate into their coaching practice. This initiative suggests self-direction and a strong desire for continuous learning because of their positive post secondary learning experiences that

1776 have served to strengthen their identity as learners (Bloom & Salmela, 2000; Brooks &
1777 Everett, 2008; Jarvis, 2007). Employers can also play a role in helping coaches develop
1778 their coaching practice by being flexible, thereby reducing barriers to learning, such as
1779 work – family schedules, lack of time, or money (CCL, 2007b).

1780 Considering the biographies of the participants, are these coaches sufficiently
1781 trained or, in other words, do they already have the knowledge/competencies to be
1782 certified as a competition-development coach? Since the new program is situated within a
1783 competency-based model, coaches practicing in the same coaching context can be
1784 grouped together because they may have similar needs (Trudel & Gilbert, 2006). Yet, the
1785 biographies of the participants demonstrated that while there are trends in their
1786 characteristics (such as university degrees, athletic experiences, etc) each coach is unique,
1787 therefore it is necessary to conduct further research in order “to begin to understand the
1788 similarities and differences between coaches in a similar coaching context” (Werthner &
1789 Trudel, 2006, p. 208). In addition, since each biography is unique, the question becomes
1790 ‘how can these unique biographies be assessed or recognized?’ It will likely involve an
1791 acknowledgement by those in charge of coach education that coaches learn from many
1792 different learning situations (Trudel & Gilbert, 2006) and participation in a short coach
1793 education program could be referred to as an ‘episodic learning experience’ (Jarvis, 2007;
1794 Trudel et al., in press). Triathlon Canada’s new program could be described as a series of
1795 episodic learning experiences that culminate with an individual certified as a
1796 competition-development coach in triathlon.

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Research Question Three

1800 The third research question aimed to address how Triathlon Canada's
1801 competition-development program is conducive to lifelong learning? Based on the
1802 interview content with the coaches and evaluators, there were several areas where
1803 Triathlon Canada's new program seemed to be particularly conducive to lifelong
1804 learning. The first is that individuals entering Triathlon Canada's new program are
1805 expected to be experienced coaches. Such is the case with our participants, where the
1806 majority of coaches had a lot of coaching experience upon entering the new program and
1807 were involved with coaching athletes who were considered at the development and elite
1808 level. By already being experienced coaches, it could be stated that our participants have
1809 a significant amount of tacit knowledge, yet research has demonstrated that tacit
1810 knowledge is difficult to measure because people have difficulty expressing their
1811 everyday experiences (Abraham & Collins, 1998a; Nash & Collins, 2006). However,
1812 depending on the format, a portfolio, such as the one that needs to be submitted prior to
1813 beginning the new program, can be a way to translate tacit knowledge into declarative
1814 knowledge. In the case of some of our participants, they found that preparing their
1815 portfolio was not an easy task and that it made them reflect significantly about their
1816 coaching practice. Despite the difficulties some of the participants had preparing their
1817 portfolio, the process is still an useful way of helping them to retrace their learning
1818 pathway. Furthermore, within an information society, it is easier to stay up to date using
1819 portfolios and debriefing sessions than working on the basis of a curriculum developed
1820 for many coaches because standards change so quickly, that any information will quickly
1821 become outdated (Jarvis, 2007).

Another way that the new program seems to be conducive to lifelong learning is the debriefing session that is supposed to happen with the coaches once they begin their evaluation. The purpose of the debriefing session is to help coaches appreciate what they may know or can do and provides an opportunity to discuss whether the content of the portfolio is an accurate representation of the coach. The debriefing session that occurred between Tim and Conrad turned out to be an opportunity to assess knowledge, while encouraging learning (Abraham & Collins, 1998a, 1998b). Thus, the debrief or 'learning conversation' attempted to provide a personal and meaningful opportunity for real feedback regarding coaching practice, where both the evaluator and coach learned. One issue related to the debrief session was the likelihood of doing them in-person may not always be possible. This is likely the reality of living in an information society, though some advanced communication technologies such as video conferencing may hold the answers to this problem.

Due to the importance that both Tim and Conrad place on the 'learning conversation', it is important to note that the debrief does not become focused on fulfilling all of the evidences and criteria for the outcome (Torrance, 2007). Furthermore, since the new program is situated within a competency-based framework, it is reasonable to suggest that not all competencies will be demonstrated or observed during the 'appointed' time. Therefore, it is important for the participants to know that they may not have an opportunity to demonstrate all of the evidences and criteria during an evaluation. Similarly, evaluators may not be able to observe the same evidences and criteria during the 'appointed' time. Therefore, the debriefing session needs to be conducted from a humanist orientation, where a facilitator acts as a guide or facilitator, rather than from a

behaviorist orientation, focusing only on observable behavior (Merriam, Caffarella, & Baumgartner, 2007). By having an individualized approach, such as starting with each coach's biography, the evaluation is personalized and perhaps most importantly, the next learning opportunities are discussed and agreed upon in a collaborative manner between the coach and evaluator. Given the important role of the evaluators in the new program, specifically during the debrief, it is necessary to comment on the competency of the evaluators. Trudel and Gilbert (2006) identify that "evaluators will have to be knowledgeable about the specific competences expected of coaches in each coaching context and about how to assess competences" (p. 530). Considering the personal biographies of both Tim and Matthew, it is reasonable to suggest that they both possess the right competencies to evaluate the participants in the program. However, further studies on the roles and competencies of evaluators are needed (Trudel & Gilbert, 2006).

Another topic to be aware of is that small sport federations, characterized by small numbers of coaches and experts, often have the flexibility to try different approaches, such as incorporating portfolios and debrief sessions into their programs. In the case of Triathlon Canada's coaching program, it relies on a small number of individuals to lead the program and evaluate the participants. More often than not, these individuals are volunteers or are paid small honorariums to perform their duties. A consistent source of funding is necessary to provide salaried positions to individuals who can help lead and evaluate the program. In contrast, large sport federations, which are characterized with a large number of coaches and large number of experts to call upon, are often too large to have the individualized, coach centered program that distinguishes Triathlon Canada's approach. Therefore, the possibility of using the same format as Triathlon Canada's new

program with a larger sport federation (e.g., one with many coaches) seems unlikely. As we have seen in this study, the actual implementation of the new program is very slow. The danger of this situation is that if the qualification process is too slow and takes too long, than the likelihood of participants dropping out of the program becomes higher (OECD, 2007a). Further research is necessary to see whether Triathlon Canada's new program is truly conducive to lifelong learning.

Research Question Four

The fourth research question attempts to find out which mechanisms should be implemented so that the coaches' certification process promotes lifelong learning. While Tim did not design Triathlon Canada's new program with the OECD (2007b) qualifications systems framework in mind, there were several elements in the program that seemed to be similar to the mechanisms that link qualifications systems to lifelong learning. Therefore, we would like to remind the readers of the 20 mechanisms identified by the OECD (see Table 2). Comments regarding several of the mechanisms will be discussed using examples from the results. Readers should also be aware that some mechanisms have been grouped together (regardless of numeric sequence) in order to comment about them collectively.

Table 2. Mechanisms identified by the OECD (2007b)

Mechanism:

A structural change in a qualifications system and/or a change in the conditions of a qualifications system that results in a change in the extent, quality, distribution, and efficiency of lifelong learning.

1. Communicating returns to learning for qualification.
 2. Recognizing skills for employability.
 3. Establishing qualifications frameworks.
 4. Increasing learner choice in qualifications.
 5. Clarifying learning pathways.
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6. Providing credit transfer.
 7. Increasing flexibility in learning programs.
 8. Creating new routes to qualifications.
 9. Lowering cost of qualifications.
 10. Recognizing non-formal and informal learning.
 11. Monitoring the qualifications system.
 12. Optimizing stakeholder involvement in the qualifications system.
 13. Improving the needs analysis methods to that qualifications system are up-to-date.
 14. Improving qualifications use in recruitment.
 15. Ensuring qualifications are portable.
 16. Investing in pedagogical innovation.
 17. Expressing qualifications as learning outcomes.
 18. Improving co-ordination in the qualifications system.
 19. Optimizing quality assurance.
 20. Improving information and guidance about qualifications systems.
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1886 *Mechanisms 1. Communicating returns to learning for a qualification, 2. Recognizing*

1887 *skills for employability, and 14. Improving qualifications use in recruitment*

1888 Recruiting the best possible talent is always an issue for many professions. For
 1889 instance, teaching programs devote significant resources to recruit, train, and help
 1890 individuals obtain teaching positions (Humphrey et al., 2008). However, within the sport
 1891 context, we do not recruit individuals to train in order to occupy a certain position. In
 1892 fact, most coaches are actively coaching and are then encouraged to seek further training,
 1893 such as NCCP certifications (Lemyre et al., 2006; Wright et al., 2006). Due to the fact
 1894 that most coaches at the recreational level are almost all volunteers and at the
 1895 development and elite level there are many part time coaches, the concept of
 1896 employability is difficult to imagine for coaches to invest time in further training (Trudel
 1897 et al., in press). Furthermore, other research has shown in the professional league context,
 1898 that some consider previous athletic experience as an important factor for employability,
 1899 rather than coaching certifications and degrees (Cushion et al., 2003; Jones et al., 2003).

Returns to learning through coach education programs seems to be more related to self-satisfaction, than an increase in salary or a promotion, both of which have been identified as important incentives for registering for further professional development and learning (OECD, 2007b). Therefore, these three mechanisms do not seem to be found within the scope of this study or the Canadian coaches qualification framework.

Mechanism 6. Providing credit transfer

At the moment, there seems to be some indication that there is a beginning of credit transfer within coaching. For instance, some studies have demonstrated that participants with a degree in physical education might also be credited with certifications in level 1 or level 2 in the old NCCP (Lacroix et al., in press). However, a thorough search on the CAC website (coach.ca) does not display concrete rules on credit transfer policy. Furthermore, one might question how a few weekends of coach training can be considered the equivalent to a 3 or 4 year degree program in physical education. Due to the fact that the new NCCP is competency-based, even a person who is educated may not be 'competent' in the outcomes specified by the CAC. In addition, it could be suggested that those in charge of the NCCP are protecting their programs, or as underlined by Gilbert and Trudel (2004), universities are tending to adopt a theoretical approach to coaching, focusing less and less on the applied aspects of the field. Even in Triathlon Canada's new program, considering the number of participants who have either attended or are currently enrolled in the NCI, there is no credit transfer, despite the fact that the coaches hold multiple certifications and/or degrees.

1923 *Mechanisms 3. Establishing a qualifications framework, 5. Clarifying learning pathways,*
 1924 *17. Expressing qualifications as learning outcomes*

1925 The new NCCP (see Figure 5, p. 25) has a clear qualifications framework with
 1926 different curriculum based on the coaching stream and context in which an individual is
 1927 involved. A coach can go from ‘trained’ to ‘master’ in each of the contexts and in some
 1928 cases, have a career in any of these contexts. Furthermore, in the general guidelines given
 1929 by the NCCP, there are seven specific outcomes that coaches need to be competent on.
 1930 Depending on the sport and the context, these outcomes may change. For instance,
 1931 Triathlon Canada’s new program has tailored these outcomes for coaches who are
 1932 practicing in the competition-development context. However, this new format is too new
 1933 to judge if it really works.

1934 *Mechanisms 8. Creating new routes to qualifications, 9. Lowering the cost of*
 1935 *qualifications, and 10. Recognizing non-formal and informal learning*

1936 Triathlon Canada’s new program has two ways of recognizing non-formal and
 1937 informal learning. The first is through the use of the portfolio and the second is through
 1938 the debriefing session that follows the evaluation, where the coach’s needs for further
 1939 learning and education are identified. However, the individualized approach needed to
 1940 recognize the non-formal and informal learning will undoubtedly be costly, both in time
 1941 and money. In the case of Conrad’s evaluation, the cost was mostly in terms of the time
 1942 required by the two evaluators to meet and go over the evaluation. However, the issue of
 1943 both time and money will become prominent for sport federations with a large number of
 1944 coaches. Therefore, it is likely that Triathlon Canada’s approach to coach education will
 1945 not be viable for competition-introduction. For some sports, the format of Triathlon

1946 Canada's new coach education program will be feasible for competition-development.

1947 However, it will likely be essential for individuals coaching in the competition-high

1948 performance context.

1949 *Mechanisms 10. Monitoring the qualification system, 12. Optimizing stakeholder*

1950 *involvement in the qualification system, and 20. Improving information and guidance*

1951 *about the qualification system*

1952 The CAC is in charge of implementing Canada's coach certification programs

1953 through the new NCCP. The new program needs to be 'sold' to new coach participants

1954 and on the CAC's website, they provide an opportunity to 'walk through the program' in

1955 the form of their online tool entitled: *Amanda: Your Online Coach* (coach.ca). This

1956 online context tool helps to provide information and guidance for new coaches about the

1957 new NCCP's programs. In terms of optimizing stakeholder involvement, due to the fact

1958 that the CAC is focusing only on its own qualification framework, there does not seem to

1959 be a concerted effort to link with other stakeholders, such as educational institutions to

1960 increase the possibility of bridging the gap between their respective qualifications

1961 frameworks. Any agreements between the CAC and universities seem to be on an

1962 informal basis or non-existent. This could partly be explained by the fact that "[there] is a

1963 balance to be struck between tailoring provision to a range of learners and maintaining a

1964 system that looks and works in a coherent fashion" (OECD, 2007b, p. 102). More

1965 research is needed to help bridge the gap between the CAC and the educational

1966 institutions where future coaches may learn about coaching.

1967 Since many of the mechanisms are closely associated with each other, they have

1968 the ability to work in strategic combination and influence each other significantly

1969 (OECD, 2007b). In fact, the OECD has identified several of these mechanisms because
 1970 they can “support almost all the policy responses and support [them] strongly” (2007b,
 1971 p.156) and they are displayed in Table 8 as ‘powerful mechanisms’.

Table 8. OECD (2007b) Powerful mechanisms

Five highly ranked strong mechanisms	Three change mechanisms	Five highly ranked supporting mechanisms
Providing credit transfer	Establishing a qualifications framework	Monitoring the qualifications system
Optimizing stakeholder involvement in the qualifications system	Communicating returns to learning for qualifications	Establishing a qualifications framework
Recognizing non-formal and informal learning	Investing in pedagogical innovation	Investing in pedagogical innovation
Establishing a qualifications framework		Expressing qualifications as learning outcomes
Creating new routes to qualifications		Improving information and guidance about qualifications system

1972

1973 If we take a look at the ‘powerful mechanisms’ identified by the OECD, how many of
 1974 them are present within the Canadian coaches qualification framework? Based on our
 1975 study, there are none to be found within the Canadian coaches qualification framework,
 1976 though are some instances where the mechanisms are beginning to be used. For instance,
 1977 two of the highly ranked strong mechanisms (3. *Establishing a qualifications framework*
 1978 *and 8. Creating new routes to qualifications*) have been introduced in the form of the new
 1979 NCCP, however many of these ‘new routes’ (e.g., competition-high performance) have
 1980 yet to be implemented, therefore it is too early to make any specific conclusions about
 1981 whether the new NCCP is conducive to lifelong learning. In addition to the two
 1982 aforementioned mechanisms, a third mechanism (10. *Recognizing non-formal and*

1983 *informal learning*) should receive additional consideration by those in charge of coach
 1984 education. One reason is because research has demonstrated that coaches learn from a
 1985 wide variety of learning situations and the second reason is that the OECD has identified
 1986 this specific mechanism for further study (Werthner & Trudel, 2006; OECD, 2007b;
 1987 Trudel et al., in press). That being said, it could be acknowledged that at the moment,
 1988 there are not many mechanisms being used to bridge the gap that can help facilitate the
 1989 lifelong learning of coaches in Canada.

1990 General Conclusions

1991 The purpose of this study was to document Triathlon Canada's implementation of
 1992 its new coach education training program in the competition-development context. Since
 1993 the new NCCP and Triathlon Canada are at the beginning of the process of implementing
 1994 the new coach education program, it is normal to find some problems with
 1995 implementation. Due to the fact that the coaching process has been described as
 1996 'idiosyncratic' and 'chaotic' (Bowes & Jones, 2006; Werthner & Trudel, 2006), it is
 1997 reasonable to suggest that no matter how much education or renewal of skills a coach
 1998 does, job security is not always guaranteed. Conversely, by adopting a lifelong learner
 1999 perspective, where learners and their biographies are at the heart learning process, there is
 2000 an acknowledgement that the learners are responsible for their own learning and that
 2001 coach education training programs are only a small part of how they may come to know
 2002 and practice coaching (Jarvis, 2007; Trudel et al., in press). Based on the results thus far,
 2003 it is too early to say conclusively whether or not the new program influences the lifelong
 2004 learning of its participants. Brine (2006) argues that the majority of lifelong learning
 2005 policy is targeted towards individuals who require basic vocational skills training and

2006 who may not have recognizable qualifications. But this characterization does not fit with
2007 the participants in the study, all of whom exhibit unique biographies with a variety of
2008 educational, athletic, and coaching experiences. Furthermore, considering the small
2009 number of participants in the program, the fact that they can be considered 'elite-
2010 development' coaches, and that only one sport federation participated in the study, we
2011 have to be careful how we interpret the results. Any findings from this study should help
2012 us reflect on how the new NCCP can nurture lifelong learning and how it is possible to
2013 make changes using a few mechanisms. Nevertheless, the initial results of the evaluation
2014 with Conrad look promising in providing opportunities for further learning and
2015 development in becoming more knowledgeable and competent at coaching triathlon
2016 within the competition-development context. Furthermore, this study demonstrates that
2017 future designers of coach education training programs need to consider not only the
2018 context (Gilbert et al., 2006), but also the biography of the coaches (Trudel et al., in
2019 press) and provides insight into the uniqueness of the triathlon coaches within the
2020 competition-development context (Trudel & Gilbert, 2006).

2021

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 2265

2266 Appendix A

2267 Consent Form

2268 Name of researcher: Pierre Trudel Ph.D.
 2269 Institution: Ottawa University. Faculty of Health Sciences, School of Human Kinetics.
 2270 Telephone number: 562-5800 (extension 4268)
 2271 E-mail address: pierre.trudel@uottawa.ca

2272 I, _____, agree to participate in the research conducted
 2273 by Dr. Pierre Trudel, professor in the School of Human Kinetics at the University of Ottawa and
 2274 his colleagues. The purpose of the research is to study coaches' development in a lifelong learner
 2275 perspective.

2276 My participation will consist essentially of participating in two (2) tape-recorded
 2277 telephone interviews. The first interview (lasting 45 minutes) will take place before my
 2278 participation to a course offered by the NCCP and the second interview (30 minutes), one or two
 2279 months after the course. I understand that the contents of the documents related to my
 2280 participation will be used only for Dr. Pierre Trudel's research and that my confidentiality will be
 2281 respected through the use of a number and the alteration of minor context details where
 2282 necessary.

2283 I am free to withdraw from the project at any time, refuse to participate or refuse to
 2284 answer questions. If I withdraw from the study, the data collected from me until the time of
 2285 withdrawal will be destroyed and will not be used. I have received assurance from the researcher
 2286 that the information I will share will remain strictly confidential. Anonymity will be assured
 2287 where possible through the use of numbers on all documentation including original transcripts.
 2288 Tape recordings of interviews and other data collected will be stored at the University of Ottawa,
 2289 in a locked filing cabinet in the researcher's office and will be kept for five (5) years. Regarding
 2290 using quotes from my interview:

- 2291 - I wish to be cited but I want a number to be used _____
- 2292 - I wish not to be cited at all _____
- 2293

2294 I am aware that at the end of the second interview I will be asked if I want to participate
 2295 to another phase of this project. If I accept, I will sign another consent form.

2296
 2297 If I have any questions with regards to the ethical conduct of this research, I may contact
 2298 the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland
 2299 Street, Room 159, Ottawa, ON K1N 6N5, tel.: 613-562-5841, email: ethics@uottawa.ca. There
 2300 are two copies of the consent form, one of which I may keep.

2301
 2302 Research Participant: _____ Date: _____

2303
 2304 Researcher: _____ Date: _____

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Appendix B

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High Performance Director Interview Guide (Tim)

2310

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1. Could you start with telling me about your academic background?

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2313

2. Can you elaborate on how your past research on practice and sport psychology has influenced how you have designed the coach education training program?

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2316

3. Can you elaborate on your perspectives on adult learning, situated learning, and some of your experiences in the NCCP?

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4. Can you describe the process of matching the outcomes of NCCP to meeting the principles of the comp-dev coach education training program? You had described in previous interviews as 'blending pedagogies'. Can you elaborate on that?

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5. You had indicated that you strategically placed the outcomes in a certain order on the coaching map. Can you describe that process a bit?

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6. What are your thoughts with the variety of portfolio's submitted?

2327

2328

7. Do you feel that the Competition-High Performance context and Competition-Development contexts are distinct?

2329

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8. Do you feel that the education and training at the Competition-High Performance context and Competition-Development context will be different?

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9. Considering where we are at the moment, what have you found as the most challenging aspect of this process with implementing the program so far?

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Appendix C

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Participant Interview Guide

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2342 Section 1 (Demographic Questions)

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2344

1. What is your current age?

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2346

2. Where do you currently reside?

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3. How long have you currently been employed in your present position?

2349

2350

4. How long have you been coaching Triathlon?

2351

2352 Section 2 (Academic Profile)

2353

2354

1. Can you tell me about your previous academic background or training?

2355

a. Have you attended College?

2356

i. Which College?

2357

ii. What was the name of the program you participated in?

2358

iii. Did you take any sport / coaching related courses in College.

2359

iv. What was it like?

2360

b. Have you attended University?

2361

i. Which University?

2362

ii. What was the name of the degree you completed?

2363

iii. Did you take any sport / coaching related courses in

2364

University?

2365

iv. What was University like?

2366

c. Have you attended a diploma program? (For example, a National Coaching Institute?).

2367

i. Which program?

2368

ii. Did you take any sport / coaching related courses in this

2369

program?

2370

iii. What was it like?

2371

2372

2373

2. Do you believe your previous academic experience has significantly informed or prepared your coaching practice?

2374

2375

a. If yes, in what ways?

2376

2377 Section 3 (Previous Experiences in Sport)

2378

2379

1. What sports did you play as an athlete?

2380

a. For how many years?

2381

b. Was it competitive or recreational?

2382

2383

2. Have you coached any sports other than Triathlon?

a. If yes, what sports?

3. Was there a specific aspect of your previous experience in sport that influenced your decision to become involved in coaching?

4. Do you believe your previous athletic experience has significantly influenced your coaching practice?

a. If yes, in what ways?

Section 4 (new National Coaching Certification Program - NCCP)

1. Have you ever taken an NCCP coaching course before?

a. If yes, in what sports?

b. What level(s) or context(s) have you completed?

2. What was your impression of the course?

a. Was there an instructor?

i. If yes, do you feel the material was presented well?

b. Did you find the course content relevant or meaningful?

c. Did the course influence your coaching practice?

3. Are you familiar with the new NCCP's shift towards competency-based programs?

a. If yes, can you elaborate?

4. Are you familiar with Triathlon Canada's Coach Education Program?

a. If yes, can you elaborate?

5. What expectations do you have for the training you will receive?

6. How do you feel this training program will influence or inform your coaching practice?

Section 5 (Professional Development)

1. Are there any specific professional development opportunities that you attend on regular basis? (For example, annual conferences, symposiums, etc).

2. Are you in contact with other coaches to share, exchange, or learn new information related to Triathlon?

3. What other learning situations do you frequently use?

a. Are there any courses you wish to take to inform your coaching practice?

b. Do you use the Internet or online resources for coaching?

c. Do you keep a journal or training log?

d. How far in advance do you set your own plans for practice?

4. From your experience, what do you consider the most meaningful type of professional development?

Section 6 (Closing Questions)

1. Are there any other questions you feel are missing?

2. Would you like to clarify or re-visit any questions?

3. Would you like to add any comments?

Thank-you for your participation!

Appendix D

Interview Guide with Conrad

1. Generally, what has happened since our last interview and now?
 - a. Did you attend any formal courses, conferences (sport – non-sport) continue to use online forums, etc.?
2. Regarding the comp-dev program, what have you done since the last time you and I spoke?
3. What was your impressions regarding the self-evaluation?
 - a. Did you have any initial reactions to the self-evaluation?
 - b. Where there any guidelines on how you did the self-evaluation?
 - c. Did you have to go through every set of criteria?
 - d. Did you find it helpful?
 - e. [Summative versus formative evaluation].
4. What were your impressions of the evaluation process with the evaluators? [Was this more of an assessment or learning conversation?]
5. How were discrepancies between your self-evaluation and what the LF-E's brought up taken care of?
 - a. Was it that there was not enough material sent? Misunderstanding, etc?
6. Do you think the evaluation process could be changed or improved?
7. What do you know regarding your next steps for evaluation in the comp-dev program?
8. Do you have any final thoughts or comments?

Appendix E

Interview Guide for Tim (Evaluator)

1. Can you take me through the process of evaluations beginning with when you and the other LF-E met to discuss the portfolio?
2. Did you follow any guidelines regarding evaluating the portfolios?
3. How did you deal with discrepancies between the self-evaluation and your own perspective?
4. On the website, you went through every set of criteria for the Design a Sport program. Do you feel that this will be the case for the other 6 outcomes?
5. Now that you've gone through one of the outcomes of the Evaluation, is there anything you would change?
6. How was doing the evaluation difficult over the phone?
7. Is the participant aware that he may be a future evaluators?
 - a. If so, did it change the evaluation process or how you interacted with him at all?
8. Do you feel that this first evaluation will be typical for the rest of the coaches?
9. What are your thoughts on how the evaluations are lining up with the philosophy and guiding principles of the program?
10. Any final thoughts or comments?

Appendix F

Interview Guide for Matthew (Evaluator)

1. What is your current age?
2. Where do you currently reside?
3. How long have you been employed in your present position?
4. Do you currently have any family commitments, such as a wife, children, common-law relationship, etc?
5. Are you a coach? Are you still actively coaching?
 - a. Current NCCP certifications?
 - b. Athletic experiences?
 - c. Familiar with the shift in NCCP programming?
6. Can you tell me about your academic background?
7. How did you get involved with becoming a evaluator for Triathlon Canada's new program?
 - a. Were there any instructions on how to be a evaluator?
 - b. Were the philosophy and principles of the program clear?
8. Were evaluations over the phone easy to do?
9. How did you deal with discrepancies between the self-evaluation and your own perspective?
10. Can you comment on your perspective on Triathlon Canada's coaching website?
11. Is there anything that you would change or improve?
12. What are your next steps with the program as a evaluator?
13. Generally, what is your overall perspective of the program so far?
14. Any final thoughts or comments?

Appendix G

Design a Sport Program Evidences and Criteria

The *Design a Sport Program* outcome represents the first outcome to be evaluated and will be used to determine the candidate's suitability to continue on to the second stage of Triathlon Canada's NCCP Competition – Development Coaching Stream Evaluation Process.

Coaches will be asked to submit a comprehensive written document and professional portfolio in order to demonstrate their competence as it pertains to the related criteria and evidence for the *Design a Sport Program* outcome. This includes the following:

1. A detailed and comprehensive periodized plan that represents the periods, macrocycles, mesocycles and microcycles that are used for the program as well as a thorough description of the coaches use of, and interpretation of the energy systems.
2. A written document that outlines the coach's operational definitions of the phases of training and explains why they have periodized their season in the manner chosen.
3. A written document that outlines the Long-term Athlete Development performance domains with a discussion of how this influences the structure and content of their plan is to be provided. In particular, the coach must demonstrate an awareness and understanding of the needs of the athletes that they are currently responsible for.
4. Materials that demonstrate the use of the ongoing monitoring of athlete's performance data and how it is used to prescribe training must also be included.
5. Some important commentary regarding their coaching environment is necessary to assist evaluators in achieving an enhanced understanding of the nature of their coaching situation.

All written documents and related materials will be assessed by three qualified evaluators who will then determine whether the coach will be granted NCCP Trained (requires further education and training but is admitted to the Competition-Development Stream) or NCCP Certified (meets the standards for the outcome and requires no immediate education and training). Certified NCCP Design a Sport Program coaches will be allowed to participate in the second stage of the competition development stream evaluation process that involves an evaluation of the coach's competence as it pertains to the training environment.

The related criteria and supporting evidence can be found on the following pages.

2596

Outcome: Design a Sport Program

Criteria	Evidence	Below – Meets – Exceeds
Outlines program structure based on training and competition opportunities	Identifies competition schedule and number of competitions during the program, as well as other key events.	
	Identifies length of each period of the program and the relevant macro, meso and microcycles.	
	Determines if yearly program should be based on a single or multiple periodized approach and identifies and explains how phases are constructed along with the energy system / physical training implications for each.	
	Identifies number, duration, and frequency of training sessions in each period of the program.	
Overall:		

Identifies appropriate measures to promote athlete development within the program	Using data obtained from performance analyses in key performance areas, validates actual stage athletes are at relative to their development and performance potential.	
	Compares the ratio of training to competition opportunities within own program to the norms pertaining to long-term athlete development (LTAD).	
	Makes judgment on developmental potential of the athletes in the program in accordance with LTAD norms as a reference.	
	Identifies short-term strategies or measures to account for current realities	
	Determines if trends observed in own program are in context to that of other provincial / national programs as well.	
	Identifies systemic strategies or measures to offset critical program elements that show major inconsistencies in regards to the athletes' long-term development.	
Overall:		

Integrates yearly training priorities into the program	Correctly identify athletic abilities and training objectives (development-maintenance - consolidation) to be emphasized at specific points of the yearly program for individual athletes.	
	Training time is allocated within appropriately constructed microcycles.	
	Adjusts program to account for situational realities while remaining consistent with LTAD principles, growth and development principles, and principles of training.	
	Develops a sport-specific template for LTAD that is consistent with LTAD principles, growth and development principles, principles for training athletic abilities, and stages of athletic development.	
Overall:		

Organizes and sequences training priorities and objectives through the use of microcycles in order to optimize adaptation to training	Positions training sessions strategically relative to each other within the week in a manner that reflects factors such as anticipated fatigue levels, time necessary to recover from specific activities, training priorities, overall performance goals, and competitions scheduled in the short term.	
	Design weekly outlines and practice plan(s) that are purposeful and relevant.	
	Takes into account fatigue indices from previous weeks' training and competition activities to organize and sequence weekly training priorities and objectives.	
	If appropriate, alters the objectives of, duration of, and methods used in certain sessions to optimize adaptations; provides rationale for such decisions based on specific evidences gathered from observation and athlete monitoring.	
Overall:		

2597

Outcome: Design a Sport Program

Criteria	Evidence	Below – Meets - Exceeds
Develops a peaking and tapering program in preparation for important competitions	Provides a description of the competition/training activities preceding an important competition, and identifies how tapering and peaking principles are appropriately reflected (nature of activities; intensity; duration; recovery time; etc.)	
	Identifies specific measures and strategies that will contribute to maximizing the athletes' potential for performance in areas such as: nutrition and hydration; adjustments to equipment; mental preparation; team cohesiveness; logistics; etc.	
	Designs a peaking and tapering program that reflects the needs and characteristics of each athlete.	
	Customizes programming decisions in the area peaking and tapering on the basis of evidences and analyses from previously implemented procedures.	
Overall:		

Appendix H

Coach 1's Evaluation Schematic

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**Triathlon
CANADA**

Home | Close File

Outcome: Design a Sport Program

The Design a Sport Program outcome represents the first outcome to be evaluated and will be used to determine the candidate's suitability to continue on to the second stage of Triathlon Canada's NCCP Competition - Development Coaching Stream Evaluation Process.

Criteria: Outlines program structure based on training and competition opportunities

Identifies competition schedule and number of competitions during the program, as well as other key events.

Specifies length of each period of the program and the relevant training means and methodology.

Determines if yearly program should be based on a single or multiple performance approach and identifies any systems how progress are constructed along with the yearly system (physical training opportunities for each).

Specifies training, diet, and frequency of testing sessions at each period of the program.

Criteria: Identifies appropriate measures to promote athlete development within the program

Using data obtained from performance analysis in key performance areas, validates actual stage athletes are at relative to their development and performance potential.

Compares the ratio of training to competition opportunities within own program to the norms pertaining to long-term athlete development (LTAD).

General Files | Outcome Files | Feedback | Auto-Save

- ☒ AM Plan 06-07
- ☒ Cover Lr
- ☒ C Taylor CV
- ☒ Annual Plan
- ☒ LTAD

Fr Aug 17th 07
Fr Aug 17th 07
Fr Aug 17th 07
Th Aug 20th 07
Th Aug 20th 07

Updated

☐	23 sat
☐	23 sat
☐	24 sat
☐	24 sat
☐	25 sat
☐	25 sat
☐	26 sat
☐	26 sat
☐	27 sat
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Criteria Average: 80.7%

☐	21 sat
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