

Running head: HOW A COACH OF DISABILITY SPORT LEARNS

**An Examination of How a Coach of Disability Sport Learns to Coach
from and Through Experience**

by

Tiago Duarte

MASTER'S THESIS

Submitted to the School of Human Kinetics in partial fulfillment of the
requirements for the degree of Master of Arts in Human Kinetics

University of Ottawa

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Abstract

Despite the steady growth of coaching science over the last two decades, research on coaches of persons with disabilities is scarce. This study examined how an adaptive sailing coach learned through and from experience using a single case study methodology. Jarvis's (2009) lifelong learning approach and Gilbert and Trudel's (2001) reflective conversation model framed the thematic analysis. The findings revealed that the coach, Jenny, was exposed to collaborative environments that optimized her learning process. Social interactions with a number of people (e.g., mentors, colleagues, and athletes) possessing different types of expertise made major contributions to Jenny becoming a coach. As time progressed and Jenny was exposed to a mixture of challenges and learning situations, she advanced from recreational Para-swimming instructor to developmental adaptive sailing coach. This study informs future research in disability sport coaching.

Keywords: lifelong learning, reflection, life-story, adaptive sailing

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Dedication

I dedicate this work to Roberta, Filipe, Luiza, and Daniel. I hope one day I can be eloquent enough to state how pivotal your support was. Without you this work would still be a crazy idea in a dreamer's head. A man could not ask for better companions on a journey.

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Chapter 1: Introduction

The disability sport movement has been growing in relevance over the past two decades (Banack, Sabiston, & Bloom, 2011; Tawse, Bloom, Sabiston, & Reid, 2012). As an example, for the first time in the history of the Paralympic Games, the organizers of the London Paralympic Games needed to release more tickets to the public, as the tickets sold out even before the start of the Games (BBC News, 2012; Mail Online, 2012). According to Topping (2012) the Games exceeded the Local Committee expectations, selling 2.7 million tickets, 900,000 more than the previous edition in Beijing. To provide a sense of the Games' progression, the 2004 Paralympic Games in Athens sold 850,000 tickets (Mail Online, 2012). The event evolved from a second-tier Games, without adequate support and funding in 1996, to a well-partnered and funded Paralympics paired with the Winter Olympic Games in 2010 (Le Clair, 2011). Although there has been notable growth in the attention given to the Paralympics, there still is a serious under-representation of research on the disabled community within academia (Le Clair, 2011).

A characteristic that brings additional complexity to the disability sport context is the broad definition of disability sports. According to Athletics Canada (2012),

‘disability’ is an umbrella term used to encompass all disabilities and the varying degrees of functioning within these disabilities. The term is useful when communicating generalities, however, it can over generalize/simplify and may lead to a limited understanding of the diverse sport development needs among various disability groups (p. 1).

While the classification of able-bodied sports in general is restricted to gender, age groups, and in combat sports (e.g., boxing, judo) weight classes, within disability sport two additional broad categories of classification exist: medical (i.e., type and level of disability) and functional (i.e., muscle strength, range of motion, co-ordination, and balance). Athletes compete against others with different disabilities but similar physical function (Athletics Canada, 2012; DePauw & Gavron, 2005). According to the International Paralympic Committee (IPC, 2013), at the London 2012 Paralympic Games there were 29 gold medal winners for the individual 100-meter races, divided by gender and class type. From a coaching perspective, the wide range of disabilities within the same sport (or event) requires coaches working with these athletes to not only acquire sport-specific and general coaching knowledge common to all coaches, but they also have to understand each athlete's specific disability and its influence on development and performance (Cregan, Bloom, & Reid, 2007; DePauw & Gavron, 2005; McMaster, Culver, & Werthner, 2012; Tawse et al., 2012).

Although the literature suggests learning from and through experience plays a prevalent role within coach development (e.g., Culver, Trudel, & Werthner, 2009; Knowles, Borrie, & Telfer, 2005; Lee, Chesterfield, Shaw, & Ghaye, 2009), the study of such a topic has not been explored in disability sports. In an effort to improve the body of knowledge in coach development and disability sport, a single case study methodology using a life-story approach examined how an adaptive sailing coach learns through and from experience.

Chapter 2: Literature Review

This chapter is divided into five sections. First, an overview of the adaptive sailing context is presented to situate the reader. The following section introduces two constructivist authors in human learning whose work is used in coach development. Next, the reflective conversation model is exposed. The fourth section briefly discusses disability sport within coach development literature. Finally, the research goals and questions that guided the study are presented.

Adaptive Sailing Context

According to the Canadian Paralympic Committee (CPC, 2013), sailing for people with a disability is accessible to participants with any type of physical impairment (e.g., amputation, cerebral palsy, visually impairment, or people requiring a wheelchair). Sailing had its Paralympic debut as an exhibition sport at the Atlanta 1996 Paralympic Games and then became a medal sport at the next edition of the Games in 2000 (DePauw & Gavron, 2005). At the London 2012 Games, 80 athletes competed in three non-gender specified medal events (IPC, 2013). As reported by the International Association for Disabled Sailing (IFDS, 2013), the boats used in such events were the *2.4mR* (a single-person keelboat), the *Sonar* (a three-person keelboat), and the *SKUD18* (a two-person keelboat). The classification system is based on four factors: stability, hand function, mobility, and vision (IPC, 2013). A classification committee evaluates athletes' functional abilities from lowest to highest level of functionality and award each athlete with points from one to seven (CPC, 2013). While the 2.4mR accomodates most disability groups regardless the number of points awarded, the SKUD18 utilizes a maximum point count of 14, which a crew of

three persons must not exceed. Such a procedure ensures the participation of athletes from all classes of disability (CPC, 2013).

Conforming to the International Paralympic Committee (IPC, 2013), athletes with a disability practice sailing in more than 70 countries. Although there are only three events in the Paralympic Games, people with disabilities can sail almost any boat (IFDS, 2013). The Disabled Sailing Association of British Columbia website pointed out the Martin 16 as one the most popular boat designs amongst athletes with disabilities (DSABC, 2013). Within the developmental sailing context, the Martin16 is considered a mainstream boat used in competitions, such as the Mobility Cup (one of the most key Canadian competitions) and the US Disabled Sailing Championship (Martin16.com, 2012). The attractiveness of the Martin16 is due to its “stability, adjustable seating, and specialized control systems making it user friendly for sailors with any level of physical ability” (DSABC, 2013). The model, furthermore, offers automated systems for steering, sail sheeting and bilge pumping. Due to the assistive technology adapted to the boat, athletes with limited function can steer the boat using a joystick. Quadriplegic sailors can control the boat using their breath using a “sip and puff” model (DSABC, 2013). The ability to innovate with equipment makes sailing “one of the very few sports in which able-bodied sailors and disabled sailors can participate on equal terms” (IFDS, 2013).

Before moving to the next chapter, a brief clarification is necessary in regards to the term used in the study. There is a debate within sailing about the most representative terminology. Whereas some sports such as triathlon use the prefix ‘para’ to identify the Paralympic version of the sport, within sailing, this is not possible given the existence of

another sport named parasailing. Therefore, some organizations name it disabled sailing (e.g., IFDS, 2013), others term it adaptive sailing (e.g., US Sailing, 2010), and some use both terms (e.g., DSABC, 2013). We chose to use the term adaptive sailing in this study.

Constructivists Views of Learning

In the learning literature, Peter Jarvis (2004, 2006, 2009) and Jennifer Moon (2001, 2004) have individually proposed a constructivist view of learning in which the emphasis is placed on the learner and how the learner constructs knowledge within a social context. Whereas Jarvis's view of learning is grounded within a lifelong perspective, Moon (2001) explained the ways in which surface knowledge can become in-depth understanding according to her map of learning and the representation of learning. Jarvis's holistic view was further refined in coach development in empirical studies (e.g., Callary, Werthner, & Trudel, 2012; McMaster et al., 2012; Werthner, & Trudel, 2009) and conceptual studies (e.g., Cushion & Nelson, 2013; Trudel, Gilbert & Werthner, 2010). Moon's ideas were also used in coach development studies (e.g., Trudel, Culver, & Werthner, 2013; Werthner & Trudel, 2006) and were suggested as future directions for study coaching (e.g., Carter & Bloom, 2009). The main concepts of both authors that are related to this study are presented next.

Jarvis proposed *learning* as

the combination of processes throughout a lifetime whereby the whole person –

body and mind– experiences social situations, the content of which is then

transformed cognitively, emotively or practically and integrated into the individual

person's biography resulting in a continually changing (or more experienced) person. (Jarvis, 2009, p. 25)

Jarvis (2006, 2009) defined *biography* as the sum of previous experiences from which one has learned (i.e., knowledge, skills, emotions, etc.). The learner's biography is directly responsible for what experiences the person chooses to attend to and how this information is experienced (Jarvis, 2009). *Experience* is "when we are conscious of the world, are aware of the specific situation and know that we are having an experience, even if we do not actually acknowledge it at the time" (Jarvis, 2009, p. 30). According to Jarvis, it is within society that we encounter opportunities to learn. Although Jarvis (2009) suggested pre-conscious and pre-cognitive learning occurs before birth in the mother's womb, the bulk of learning occurs after the acquisition of language—given that the attribution of meaning is limited before the use of semantics (Jarvis, 2009). Jarvis defined *primary socialization* as the initial interactions that children have with their primary caregivers and/or family members. He articulated that "children begin to internalize their modified version of the social world of the significant others, and in this process of internalization they identify with its familiarity" (Jarvis, 2009, p. 45). It is through interaction and cultural experience that meaning is attained (Jarvis, 2009). As children grow and develop, they interact with a greater variety of people and learn in other sub-groups, in a process that he refers to as *secondary socialization* (Jarvis, 2006, 2009). Moreover, Jarvis (2006) called *life-world* the combination of one's experiences in different social contexts (life-wide) throughout time (lifelong), exposing our interconnection with others.

Our life-world is also about people's life-worlds. Not only is the life-world contained within a wider society, there is a total mixture of institutions and groupings within it, such as the family, school, work and informal meeting opportunities during leisure and so on. Each contains its own sub-culture and we adjust our behavior automatically to fit into the organizations and groups with which we are familiar. (Jarvis, 2006, p. 54)

Intertwined with biography is the process of becoming. According to Jarvis (2006, p. 6), "at the heart of all learning is not merely what is learned, but what the learner is becoming (learning) as a result of doing and thinking – and feeling." Because every biography is unique, every learner will follow his/her own specific journey to *becoming* (Jarvis, 2009).

Another core concept in Jarvis' view of learning is *disjuncture*, which "occurs when our biographical repertoire is no longer sufficient to cope automatically with our situation, so that our unthinking harmony with our world is disturbed and we feel unease" (2009, p. 21). The desire to regain harmony and surpass the feeling of disjuncture is considered a fundamental motivating force for learning to occur (Jarvis, 2006). There is also, however, a possibility that a person rejects learning; therefore, not every disjuncture will lead to learning. Jarvis proposed that being in new environments or new situations increase the likelihood of a person experiencing disjuncture because he/she can no longer take his/her world for granted.

Central to Moon's (1999, 2001, 2004) generic view of learning are two categories of learning approaches (*surface* learning and *deep* learning) that collectively encompass five

stages of learning. According to Moon, surface learning is characterized by short-term memory and, as the name proposes, is a superficial approach to learning. It is divided into *noticing* and *making sense*. Noticing refers to the perception of a stimulus and it has as the best representation of learning a memorized representation (Moon, 2004). Making sense relates to the process of awareness of coherency in the material of learning and it is best represented by the reproduction of ideas that are not well linked yet (Moon, 2004). As the person engages in reflection, a deeper understanding occurs (i.e., upgrading learning). Thus, deep learning is achieved as the learner walks through the stages of *making meaning*, *working with meaning*, and, in very few cases, *transformative learning* (Moon, 2001, 2004). Making meaning is the level in which new material is assimilated to the cognitive structure, allowing the understanding of a subject. This stage's best representation of learning is the presence of well linked ideas that are meaningful. Working with meaning "implies the ongoing accommodation of the cognitive structure and... the manipulation of meaningful knowledge..." (Moon, 2004, p. 144). The best representation of learning at this level is well structured meaningful ideas (Moon, 2001, 2004). Transformative learning refers to the learners' ability to evaluate their own process of knowing and their frames of reference with greater clarity than on previous stages. The best representation of learning of this level is reflective, creative, idiosyncratic, and restructured by the learner (Moon, 2004).

Moon also added to our understanding of how specific *learning situations* contribute to our becoming. There has been some debate within the field about the terminology as it relates to the formality of education/learning/learning situations (Mallett, Trudel, Lyle, & Rynne, 2009; Trudel et al., 2013), which was initiated by the seminal work

of Coombs and Ahmeds' (1974) typology of formal, non-formal, and informal *learning*.

Nelson, Cushion, and Potrac (2006) utilized Coombs and Ahmeds' framework to illustrate how coaches learn through formal (i.e., institutionalized and hierarchically structured), non-formal (i.e., organized or systematic activities, such as workshops outside of formal education), and informal (i.e., daily experiences) *episodes*. Nelson and colleagues' piece of research stimulated the production of a number of important studies that have shaped the coach development literature (e.g. Culver & Trudel, 2006, 2008; Culver et al., 2009; Lemyre, Trudel, & Durand-Bush, 2007; Mallett et al., 2009; Wright, Trudel, & Culver, 2007). Using the work of Jarvis and Moon, Trudel and colleagues (2013) clarified the difference between learning contexts and learning situations. Specifically, a learning context refers to the "setting in which learning occurs—the course, the instructor, relevant organizations, and so on—and the learning situation, is the learner's perception of the context and unique to the learner" (p. 48).

Moreover, Trudel and colleagues (2013) highlighted the central ideas that overlap in Jarvis's (2006, 2009) and Moon's (1999, 2001, 2004) views of learning. It should be noted that Moon uses the terms cognitive structure and cognitive dissonance, which can be seen as parallel terms to Jarvis's biography and disjuncture, respectively. For both theorists, the meaning attributed to a particular situation is directly influenced by a person's biography (or cognitive structure). In other words, learning takes place as a result of the learner's biography and the meaning the learner gives to a particular situation (Jarvis, 2009; Moon, 2001).

In an effort to shed light on Moon's generic view of learning within the study of coach development, Werthner and Trudel (2006) produced an illustrative case study based on elite level coaches. In this study, the authors clarified learning situations as *mediated*, *unmediated*, and *internal*. In mediated situations, such as formalized coaching courses and workshops, the learning is directed by another person; thus, the learner has *no* or *little* control over the material of teaching (e.g., content of the course and articles used).

Unmediated situations, such as a coach who decides to search on websites for drills, occur when there is no instructor and the learner decides what to learn. In these situations, the learner is in control of the material of learning (e.g., books, videos, and websites).

Unmediated learning situations are restricted by the coaches' willingness to create learning opportunities and "the fact that coaches cannot look for information on a topic if they do not know it exists" (Werthner & Trudel, 2006, p.204). Finally, internal situations, such as reflection, occur when no new material is introduced; however, there is a reconsideration or reorganization of current knowledge in order to create new knowledge (i.e., a change in the learner's cognitive structure) (Werthner & Trudel, 2006).

The situations refer to how the learner perceives the learning. For instance, during a coach education lecture, a learner might notice (mediated learning situation in a formal context) that she needed to gain a better understanding of sports nutrition. At home, she looked for websites on the subject and read some articles (unmediated learning situation). It could be argued that learning occurred at least at a surface level (i.e., noticing). During her drive to the coaching event on the next day, she reflected on how she could implement the 'tips' found on the websites to meet the needs of her coaching context (internal learning

situation). Before the beginning of the next lecture, she approached the facilitator and asked several questions to further her understanding of her reflections (unmediated learning situation).

Reflective Conversation Model

Reflection has been shown to be a prevalent source of learning in coaching (e.g. Cushion et al., 2010; Gilbert & Trudel, 2001; Lee et al., 2009) as it is in other professional activities, such as teaching and psychotherapy (Schön, 1983). Although reflecting on one's experience remains central in coach learning (Knowles et al., 2005; Lee et al., 2009), there is little research that attempts to clarify what it means to learn by experience. Among the few studies that exist, there appears to be two ways of thinking that promote a better understanding of learning by experience. First, influenced by Schön's (1983) theory of reflection, Gilbert and Trudel (2001) analyzed how model youth coaches learned to coach through experience. The authors used two propositions to guide the study: (a) model coaches engage in reflection to learn through experience, and (b) coaching issues trigger reflection (Schön, 1983).

In the second way of understanding learning by experience, Ghaye, Lee, Shaw, and Chesterfield (2009) suggested that reflection could be promoted through the use of one's strengths. Ghaye and colleagues proposed the practice of self-reflection to improve the qualities and characteristics that a person already possesses using the phrase, "When I am at my best, I..." to guide the reflective process. According to Moon (2004), reflective practice is theorized to deepen learning. Collectively, Gilbert and Trudel (2001) and Ghaye and colleagues (2009) proposed that experiential learning could be achieved through reflection

on issues and strengths; furthermore, the authors complement each other views. Gilbert and Trudel's model was acknowledged by several authors as being the most empirically supported model for how coaches learn through experience (e.g., Côté & Gilbert, 2009; Cushion et al., 2010; Nelson & Cushion, 2006; Rangeon, Gilbert, & Bruner, 2012). It has been suggested, however, that reflection should be further explored; thus, Gilbert and Trudel's model was used in this study as an attempt to expand what is known about reflection and learning through experience.

A core concept of Gilbert and Trudel's (2001) model is *issue*. Schön (1983) utilized the term *dilemma* to define the trigger for two types of reflection, reflection-in-action and reflection-on-action in professional activities (e.g. psychology, architecture). Schön defined reflection-in-action as the meta-cognitive process that occurs in midst of an action, whereas reflection-on-action refers to the reflection that occurs within the action-present. Gilbert and Trudel (2001, 2005, 2006) built on Schön's work and proposed a third type, retrospective reflection-on-action (Gilbert & Trudel, 2001) in which a coach reflects on a situation that cannot be changed anymore. Gilbert and Trudel, however, used the term *issue* as a way to broaden the meaning of a dilemma. Instead of being simply a problematic situation that needs to be solved, an issue is also defined as a subject that people discuss or argue about. In that sense, a coach who uses the first two types of reflection learns *through* experience while a coach who uses the latter learns *from* experience (Gilbert & Trudel, 2001). Although Ghaye and colleagues (2009) acknowledged the importance of both reflection-in-action and reflection-on-action, the authors criticized Schön's 'problem' approach and suggested a focus on improving performance through a strength-based

approach. It is important, therefore, to highlight that what triggers a reflective conversation is not necessarily a problem, but is always an issue (as defined above) in the coach's view. Werthner and Trudel (2006) provided an example of a coach who was approached by an athlete who wanted to be on the Olympic podium. The coach reflected:

We have to look at all the cards and decide how to provide the best program possible -What do I need to learn? Who do I need to talk with? What do I need to read? What do I need to change? How will I analyze in order to know if the change was a good one or not? (p. 208)

Therefore, after the athlete set a goal to win a medal, the coach identified that goal as an issue upon which to reflect; however, it was not necessarily viewed as a problem.

Gilbert and Trudel (2001, 2005, 2006) offered a model of reflection characterized by six components: (a) coaching issues, (b) role frame, (c) issue setting, (d) strategy generation, (e) experimentation, and (f) evaluation (see Figure 1). According to the authors, "a reflective conversation comprising the latter four components, triggered by coaching issues and bound by the coach's personal role frame, was central to reflection" (Gilbert & Trudel, 2001, p. 22). Conforming to Gilbert and Trudel (2001, 2005, 2006), strategy generation, experimentation, and evaluation compromised a loop in a reflective conversation that can be processed many times. It is important to note that the reflective conversation is influenced by four conditions in which two are specific to the coach (access to peers and stage of learning), one to the coaching context (environment), and the last to the issue (issue characteristics). As the model is described in more detail an attempt will be

made, where appropriate, to relate each of the elements to the definitions presented early on constructivist views of learning.

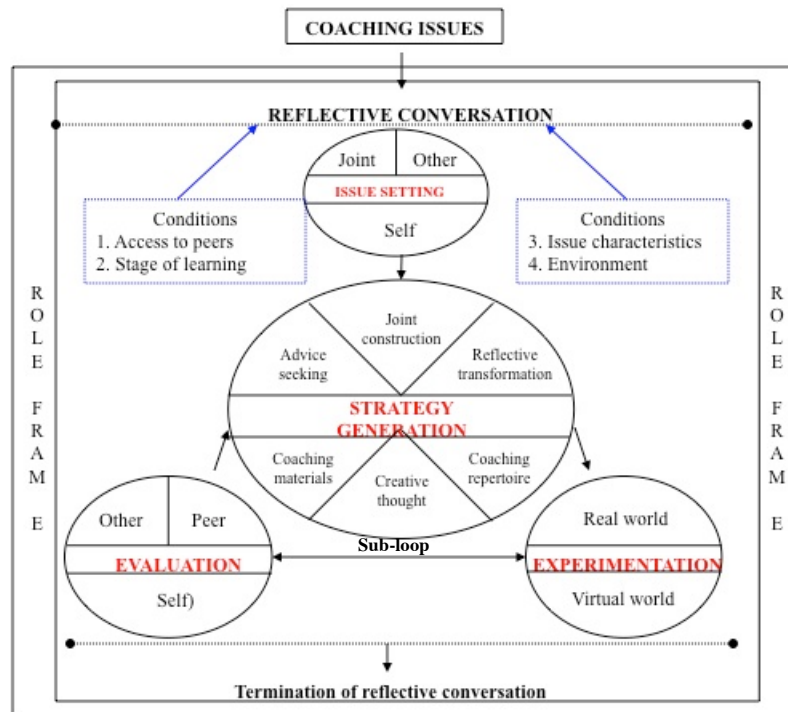


Figure 1. Overview of reflection

Adapted from “Learning to coach through experience: Reflection in model youth sport coaches” by W. Gilbert and P. Trudel, 2001, *Journal of Teaching in Physical Education*, 21(1), p. 23. Copyright 2001 by Human Kinetics.

Coaching issues provide the impetus to generate and test new coaching strategies through reflection (Gilbert & Trudel, 2001, 2005, 2006). The authors proposed that an issue is only reflected upon if the coach considered it challenging.

The *role frame* acts as a filter used by the coaches to perceive a situation as meaningful (Gilbert & Trudel, 2001, 2004). The role frame is comprised by boundary

components related to the environmental conditions and internal components, or the personal views based on a coach's biography (Gilbert & Trudel, 2004).

Gilbert and Trudel (2001, 2006) defined *issue setting* as the process through which a coach identifies an issue and decides why it is worth reflecting on using one of three options: (a) self – the coach's own experience, (b) joint – collaborative effort of the coaching staff that normally occurs before or after a game or practice at that sport facility, and (c) other – when parents, players, and administrators provided unsolicited comments. Gilbert and Trudel (2001) posited that self was the most used option, followed by joint and other being the least common of the ways in which coaches reflect on issues.

Strategy generation is divided into six options, several of which are often used concomitantly: (a) advice seeking, (b) joint construction, (c) reflective transformation, (d) creative thought, (e) coaching repertoire, and (f) coaching materials (Gilbert & Trudel, 2001). Whereas the first three options are related to the coach's social context, the latter three are independent of others (Gilbert & Trudel, 2001). Advice seeking is defined as a one-way relationship in which the coaches sought information from trusted and respected peers. Joint construction referred to a two-way process of co-creating the strategies, which occurred mainly among the coaching staff. Reflective transformation is defined as the adaptation process derived from observing the work of others in different contexts that were not necessarily related the coaches' context. The first three options were influenced by the condition of access to peers. Creative thought stands for the personal cognitive process used to generate unique strategies. Coaching repertoire is defined as the use of the coaches'

personal experiences. Finally, coaching materials referred to resources, such as books and videos, formally prepared to support coach learning.

As stated in Gilbert and Trudel's model, after choosing a strategy, *experimentation* occurs using one of the two options encompassing this component: (a) virtual-world experimentation and (b) real-world experimentation (Gilbert & Trudel, 2001, 2005, 2006). Virtual-world experimentation refers to an attempt to pre-test the strategies cognitively either alone or with peers through discussion or using drawings (e.g., elaborating drills). Real-world experimentation was defined as the true test of a strategy because it is implemented on an actual situation.

The effectiveness of the experimental strategy on resolving the issue is then *evaluated* using three options: (a) self, (b) other, and (c) peer. The self option is defined as the "introspective review based on personal observations" (Gilbert & Trudel, 2001, p. 24). Other and peer evaluation options are based on comments derived from two distinct groups. Parents, players, and the people from team management belonged to the *others'* group, whereas the *peers'* group were composed of colleagues inside and outside of the coaching staff.

A close look at the model clarifies the links between Schön's (1983) theory of reflection and Jarvis (2009). A coaching issue could be related to Jarvis's definition of disjuncture. According to Jarvis, different individuals perceive the same situation in different ways; their biographies will dictate *how* they interpret the situation and *what* they do to regain harmony. While Schön explored the four conditions influencing one's reflection (environment, access to peers, stage of learning, and issue characteristics), Jarvis

referred to life-world (environment), learning from others (access to peers), biography (stage of learning), and disjuncture (issue characteristics) as concepts that influence the process of becoming. Moreover, when the coach experiences disjuncture (a coaching issue), she has to decide whether to engage in learning, which could occur through a reflective conversation, or reject the opportunity to learn (Jarvis, 2009). In every component of the model a coach might reflect, making use of different options that refer to the coach's biography (e.g., self) or to people surrounding the coach's life-world (e.g., peers, others). In the experimentation component of the model it could be argued that during the real world experimentation the coach is receiving visual feedback from the 'outside' world, such as an athlete executing a play. In virtual world experimentation, the coach self-reflects on his or her own representation of knowledge by, for example, drawing on a blackboard or imagining a new play. Therefore, every component of Gilbert and Trudel's model acknowledges the interplay between the self and social influences in the reflective conversation. While Schön (1983) proposed that reflection was triggered by issues specifically related to one's practice, Jarvis discussed a broader view of learning. Therefore, Jarvis was used to make sense of the data regarding the whole person as she developed and the concepts of Schön, through the lenses of Gilbert and Trudel, were used to analyze the data from certain issues faced by the coach.

Disability Sport Coaching

The few studies on coaching athletes with disabilities underpinned some barriers that coaches have to overcome in order to build their coaching knowledge. As cited earlier, the addition of disability-specific knowledge brings more complexity to this task as it

extends and broadens the fundamentals of coaching (Burkett, 2013). Amongst the barriers is the limited amount of mediated learning situations (Cregan et al., 2007; DePauw & Gavron, 2005; McMaster et al., 2012; Tawse et al., 2012). Moreover, disability sport coaches have minimal coaching materials (e.g., books, workshops) specific to their context (Cregan et al., 2007; McMaster et al., 2012; Tawse et al., 2012), which hinders their efforts to engage in these specific unmediated learning situations. Similarly, the opportunities for disability sport coaches to act as sounding boards or to participate in ‘communities of practice’ are limited due to the low number of coaches/peers with whom they might interact (McMaster et al., 2012).

The literature on able-bodied sport coaching proposes some ways in which coaches develop their coaching knowledge. Although the literature has shown that past athletic experiences are influential for coaches to acquire knowledge (e.g., Cushion et al., 2010; Nelson et al., 2006), within disability sport, the majority of coaches are not disabled themselves (DePauw & Gavron, 2005), which, in large part, means a lack of primary experience as athletes in disability sports. Jarvis (2004) defined primary experience as one where a person perceives a situation first-hand. A secondary experience is mediated through others (Jarvis, 2009) and this situation leads to athlete input, thus assuming a crucial role in the learning process (Cregan et al., 2007; McMaster et al., 2012; Young, 2010). Even though Tawse and colleagues (2012) supported the use of peer mentoring among wheelchair rugby players, the use of mentoring has not yet been observed regarding the disability sport coaches.

Disability sport researchers presented certain learning initiatives that coaches have undertaken in order to address the challenges of their coaching context. Cregan and colleagues (2007) suggested the use of parents and caregivers of disabled athletes as sources of information. Tawse and colleagues (2012) illustrated how coaches stimulated veteran players to mentor younger athletes. Research has also shown that an important part of coaching in disability sport is the capacity to adapt (e.g., specific techniques) according to athletes' abilities (Cregan et al., 2007; McMaster et al., 2012). McMaster and colleagues proposed that experiences within the able-bodied sports were still considered important due to the technical overlap between similar able-bodied and disability sports (e.g., basketball and wheelchair basketball). As stated above, according to Moon (2004) it is only at deeper levels of learning, such as working with meaning and transformative learning, that the capacity to adapt or be creative is found, which necessarily requires reflection. Therefore, an examination of the learning process of an adaptive sailing coach using a lifelong learning perspective and is appropriate to understand how the coach developed her knowledge throughout time. Moreover, the use of a model that provides an understanding of the coach's reflective process complements such an in-depth analysis.

Research Goals and Questions

The aim of this study was to examine how an adaptive sailing coach learned from and through experience. This understanding might inform strategies that National Sport Organizations (NSOs) and the National Coach Certification Program (NCCP) could employ to create new learning strategies for disability sport coaches. Moreover, exploring how disability sport coaches learn could build a better comprehension of how coaches

become reflective practitioners, a desirable profile in a society that continually increases the amount of knowledge produced. To achieve my purpose, two sets of questions, each with its own guiding framework, were used. First, to understand the coach's process of becoming an adapted sailing coach using a lifelong learning approach (Jarvis, 2009), the following questions were asked: How did the coach become a disability sport coach? How did the contexts of the coach's biography influence her becoming? Who else was involved in her becoming and how were they involved? Second, in order to explore the coach's reflective process, using the reflective conversation model (Gilbert & Trudel, 2001), these questions were employed: How did the coach's role frame filter the issues that she identified? How did the coach generate strategies to address the issues? In which ways did the coach engage in experimentation? How did the coach evaluate the strategies used?

Chapter 3: Research Method

Epistemology

Constructivism is the epistemology that guided this research. Constructivism assumes multiple realities and believes that empirical reality and theoretical concepts are mutually constitutive (Stake, 2005). According to Merriam (2002), the key to understanding qualitative research lies with the belief that meaning is socially constructed by individuals through social interaction. The world, or reality, is not a fixed, single, agreed upon, or measurable phenomenon. Instead, there are multiple constructions and interpretations of reality that change over time (Merriam, 2002). As a researcher, I am interested in understanding what those interpretations are at a particular point in time.

Case Study Methodology

In order to select a methodology the first and most important condition is to identify the type of research question (Yin, 1994). According to Yin (1994), case studies have been shown to best answer *how* and *why* questions, “because such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidence” (p. 6). Merriam (2002) stated that case study is effective because it provides readers the possibility of interpreting and applying to their own reality what she/he has learned from the case. In other words, “it is the reader, not the researcher, who determines what can apply to his or her context” (Merriam, 2002, p. 205). A rich description of the case with narratives and its situational explanations offers readers the opportunity to relate the case to their personal experiences (Stake, 2005). Furthermore, Stake’s (2005) assumption is that

people use these vicarious experiences to make naturalistic generalizations; a process that is compatible with a constructivist epistemology (Crotty, 1998).

A way to present single case studies is through the use of life story or narrative inquiries. Narrative inquiries and other types of research methodologies that focus on biographical accounts have gained popularity within research on education (Armour, 2006), elite coaching (Jones, Armour, & Potrac, 2003), and disabled athletes (e.g., Kavanagh, 2012; Rees, Smith, & Sparkes, 2003); but they have not yet been used to explore coaches of athletes with disabilities. The possibility of presenting experience holistically in all its complexity and richness is amongst the strengths of a life-story approach (Webster & Mertova, 2007). Although a life narrative is not aimed to provide generalizations from a positivistic standpoint, it affords the provision of valuable insights into the complexity of the phenomenon under scrutiny (Jones et al., 2003). Webster and Mertova (2007) argued that a “narrative tends to highlight critical episodes and events, and in so doing provides insights into human understanding, as well as manageable ways of focusing outcomes and recommendations for improvement” (p. 69). Furthermore, Armour (2006) enthusiastically shared her belief that “this form of research has an unrivalled capacity to reach teachers [coaches]” (p. 465).

Participant Selection

Purposeful and convenient sampling. Purposeful sampling (Creswell, 2007; Marshal, 1996) was used to recruit one disability sport coach who met the pre-established profile. Three disability sport administrators of clubs who offer programs for people with disability were contacted to recommend a coach to participate. Although a pre-assessment

of the coaches indicated by the three sport organizations was planned during the research proposal, the delayed response of two coaches made that phase not viable. Given the need of frequent and personal interactions for data gathering (e.g., in-depth interviews, focused interviews, and member checking interviews), a coach who could be accessed in the Capital Region was selected for convenience

Criteria for selection. As discussed above, it has been suggested that issues trigger reflection (e.g., Gilbert & Trudel, 2001; Schön, 1983). Moreover, Jarvis (2009) proposed that a world of change is a fertile ground to produce disjuncture. Therefore, a coach of adaptive sailing was preferred given that the sport accommodates athletes from a wide breadth of classifications. To avoid redundancy, the recruitment criteria are indicated in the next section where the participant is presented. Some characteristics were not part of the criteria and are noted as a ‘bonus.’

Participant. Jenny Davey, a 34-year-old female from the suburbs of a Canadian metropolitan city who has assumed a variety of roles in multiple disability sports (bonus) since 1994, and most importantly, in adaptive sailing since 2002 (criteria a and b). The programs she worked at provide services ranging from 40 to 150 sailors with a disability (criteria c). The sailors had different types of impairments (sensorial, ambulatory, and intellectual) (criteria d). Within sailing, Jenny coached introduction and development race teams (criteria e). Multiple athletes from her teams progressed to Paralympic classes (2.4mR and Sonar) having competed at Canada Games and a number of international competitions (criteria f). Moreover, one athlete represented Canada at the London Paralympic Games (bonus). Within the last 10 years, she has worked as the program

manager and head coach at adaptive sailing associations in three Canadian provinces (bonus). Jenny was responsible for managing a staff ranging from 3 to 7 people (bonus). As a coach developer (bonus), Jenny was selected to design the “National Coaching Persons with a Disability Professional Development Module’ for Canadian sailing instructors and taught the pilot ‘Train-the-Trainer course’ to representatives from each province. Furthermore, she was invited by Sail Canada to produce sections of the national ‘Learn to Sail Manual’ to increase awareness and inclusiveness of adaptive sailing in the mainstream curriculum. Jenny also contributed to the development and refinement of the “Canadian Long Term Athlete Development Plan For Sailors With Disabilities.” Currently, Jenny is finishing a Master’s of Arts in coaching studying how novice adaptive sailing coaches learn to coach (bonus).

Data Collection

The first author collected data over the course of six months (from October 2012 to March 2013). Data were gathered using various methods: a Modified Rappaport Time Line (RTL), in-depth interviews, documents, focused interviews, and member checking.

Modified RTL. A modified version of the Rappaport Time Line (Langley & Knight, 1999; Rappaport, Enrich, & Wilson, 1985) was used to explore the coach’s biography. The RTL is used to clarify the chronology of important events in a person’s life. The version used by Langley and Knight consisted of a blank sheet of paper measuring 8.5 X 14 inches in which the words *birth* and *present* were written on opposite ends. Unlike Langley and Knight, who utilized the milestones to cross validate and clarify interview comments, in the present study, the milestones were used to guide the in-depth interviews.

Within the present study, the coach took one week to return the RTL and produced a two-meter-long sheet of paper. An example of a blank page is presented in Appendix A and pictures of the complete RTL are in Appendix D.

In-depth interviews. The coach was interviewed in person using the RTL as a guide to examine (a) her biography (i.e., process of becoming a person), (b) coaching philosophy (perception and process) for coaching disability sport (i.e., role frame), (c) coaching conditions (i.e., access to peers, stage of learning, issue characteristics, and environment), and (d) a description of current athletes. The interview style was similar to life-story interviews, which makes this phase of the study exploratory in nature. The interviews were digitally recorded, transcribed verbatim, and gathered almost six hours of interviews resulting in a total of 86 single-spaced pages. An interview guide is presented in Appendix B.

Focused interviews. Three focused interviews (Yin, 2009) structured by the reflective conversation model (Gilbert & Trudel, 2001) examined the coach's reflection during a particular competition. The interviews were conducted before (42 minutes-long), during (29 minutes-long), and after (82 minutes-long) an international competition that occurred at the end of the data collection period. The first focused interview asked the coach her goals for the upcoming competition and her strategies to achieve those goals. The subsequent interviews focused on the challenges faced during the competition, the strategies elaborated and used to overcome them, and the coach's evaluation of the outcome of the goals. The coach was interviewed using Skype. The interviews were digitally recorded and originated 38 single-spaced pages of verbatim transcriptions.

Documents. The participant provided to the researcher a total of 70 pages of personal documents (e.g., adaptive sailing documents, coaching manuals, emails exchanged between her and other coaches or athletes, competition reports, marketing survey, volunteer guides, and questionnaires) to utilize as a source of data. These documents allowed the creation of probing questions used during the in-depth and focused interviews; moreover, the documents helped the researcher to get immersed in the context of adaptive sailing.

Member checking. Informal member checking interactions provided the researchers with the opportunity to discuss our interpretations of the data with Jenny. During the member checking, Jenny edited the manuscript, adding, deleting, and nuancing some quotes to better represent her life-story, and in some cases to protect confidentiality. Given the number of informal interactions between the first author and the participant, these interactions were neither digitally recorded nor transcribed.

Data Analysis

Thematic analysis was conducted to interpret the data using Braun and Clarke's (2006) six phases: familiarizing, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Familiarizing stands for the process of knowing the transcripts, reading and rereading the transcripts and making notes of potential meaning units. Generating initial codes refers to the process of identifying features of the data that appear interesting to the researcher (Braun & Clarke, 2006). Searching for themes occurs when the transcription has been coded and is the act of grouping codes into larger themes. The analysis of themes occurs on an on-going basis. Reviewing themes is the process in which themes might be collapsed, separated, or even

discarded from the analysis. In phase five, defining and naming themes, the authors suggested the identification of the essence of each theme and how it fits into the overall study. In the final stage, producing the report, a researcher must provide sufficient evidence of the themes within the data that relates to the research questions.

Braun and Clarke (2006) proposed that, “a theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set” (p. 82). The authors highlighted the importance of the analysis’ flexibility in which a researcher must move back and forth throughout the phases. The process of identifying the themes was both deductive and inductive. The deductive portion utilized Gilbert and Trudel’s (2001, 2005, 2006) model of the reflective conversation. The four conditions and the six components proposed by the authors provided a scaffold for the main themes and the model’s respective options were subthemes. The inductive portion of the analysis was performed mainly to identify subthemes related to the conditions that influence reflection and role frame of the coach and they emerged as Braun and Clarke’s phases of analysis were performed. The QSR International’s NVivo 10 qualitative data analysis software (QSR, 2012) was utilized to organize, manage and build a track of evidence from different sources of data.

Validity

Several steps were taken to minimize validity threats. Maxwell (2005) affirmed that validity should be a goal in qualitative research. Furthermore, according to Maxwell,

Qualitative research is not primarily concerned with eliminating variance between researchers in the values and expectations they bring to the study, but with

understanding how a particular researcher's values and expectations influence the conduct and conclusions of the study (which may be either positive or negative) and avoiding the negative consequences. (p. 108)

To achieve the goal of minimizing validity threats and maximizing the positive influences of the first author's biography, six strategies were implemented: (a) a bracketing interview, (b) familiarization with context, (c) reflective journaling, (d) member checking, (e), verbatim transcribing, and (f) peer reviewing of transcriptions.

The first three strategies were used since the beginning of 2012. A bracketing interview stimulates a researcher's reflexive capacity, given that it allows a person to recognize in his/her biography what led him/her to the person he/she is becoming (Rolls & Relf, 2006). The bracketing interview, conducted early in 2012, prompted me to find ways of better understanding disability sport in Canada. Given the need to familiarize with such a context, he engaged in on-going observation at an adaptive program. Moreover, I asked to listen to the interviews with disability sport coaches conducted by other researchers from the University of Ottawa. While listening to the interviews, I kept a reflective journal. Finally, the bracketing interview was used as a 'check' against personal biases while the data collection and analyses were being conducted to understand my assumptions and bias. Member checking is not only an important method of minimizing validity threats in research, in this study it was also amongst the data collection methods used to keep the voice of the coach vibrant in the final product. The interviews were transcribed verbatim to retain the nature of the statements. Given that the mother tongue of the first author is not English, the transcriptions of the interviews were subjected to a peer check. Establishing

the trustworthiness of transcripts has been suggested to be a basic element of rigor in qualitative research (Poland, 1995). Therefore, a doctoral student selected five interviews, checked random excerpts of ten minutes, and found an accuracy rate of 97.96%, which indicates trustworthy transcriptions (Poland, 1995).

Ethical Issues

Disability sport is a sensitive topic because it involves a marginalized population. Therefore, the question ‘Could my research harm any person involved in the study?’ should be considered every time a decision is taken about the research design of the study. In order to provide the necessary ethical conduct that should guide any research initiative, this study fell under the ethical approval of the University of Ottawa Ethics Board. It is in agreement with a larger project on disability sport coaches conducted by the Coach Development Research Group (CDRG) of the University of Ottawa. My name as the study’s first author was added as assistant researcher to the CDRG’s larger research project. I also signed a confidentiality agreement that allowed me to listen to the interviews conducted during previous studies.

Pseudonyms were used to guard the privacy of the people who are part of Jenny’s life story. The participant was also offered the use of a pseudonym but preferred to be portrayed under her real name. Other studies have used the real names of athletes with disabilities (e.g., Brittain, 2004; Kavanagh, 2012) showing that such praxis is not novel.

Chapter 4: Findings

The findings are divided into two chapters. First, the following article is presented: Becoming a coach in developmental adaptive sailing: A lifelong learning perspective. This article utilized Jarvis (2006, 2009) as the theoretical framework and focused on Jenny's lifelong learning. Second, the other findings chapter is presented using Gilbert and Trudel's (2001) reflective conversation model as the framework and focusing on the coaching issues Jenny faced.

Article

**Becoming a Coach in Developmental Adaptive Sailing:
A Lifelong Learning Perspective**

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The term *disability sport* has been critiqued due to its broad scope that can oversimplify and lead to a restricted understanding of the diverse needs among various disability groups (Athletics Canada, 2012). A classification system recognizes this diversity and aims to ensure competitive fairness, allowing athletes with different disabilities—yet similar physical function—to compete against each other (Athletics Canada, 2012; DePauw & Gavron, 2005). For instance, the International Paralympic Committee (IPC, 2013) awarded 29 gold medal winners, divided by gender and class type, for the individual 100-meter races at the London 2012 Paralympic Games (IPC, 2013). Given that classification is sport specific, within sailing, the system allows athletes from different types of disability (e.g., ambulatory, visual impairment) to participate together in the same events (CPC, 2013). In order to accommodate this wide spectrum of athletes, sailing permits a broad range of modifications to the boats (IFDS, 2013; IPC, 2013). These adaptations vary from simple seat adjustments that provide postural support (Burkett, 2010) to electronic assistive devices that allow athletes with high level spinal cord injuries to control the boats by blowing air through two straws (i.e., “sip n’ puff” set up) (IFDS, 2013). Such a flexible ability to innovate with equipment makes sailing “one of the very few sports in which able-bodied sailors and disabled sailors can participate on equal terms” (IFDS, 2013).

Coaching in Disability Sports

From a coaching perspective, the breadth of disabilities adds layers to how coaches learn (Burkett, 2013). Recently, Trudel and Gilbert (2013) suggested optimal learning environments as the ones that provide coaches with mediated, unmediated, and internal learning situations. In mediated learning situations, such as formalized coaching courses,

the learning is directed by another person; thus, the learner has limited or no control over the material of teaching (e.g., content of the course). Unmediated learning situations, such as a coach who decides to search on websites for drills, occur when there is no instructor and the learner decides what to learn. In these situations, the learner is in control of the material of learning (e.g., books, videos, and websites). Finally, internal learning situations, such as a coach thinking on the way back home from a practice, occur when no new material is introduced; however, there is a reconsideration or reorganization of current knowledge in order to create new knowledge (i.e., a change in the learner's cognitive structure) (Werthner & Trudel, 2006).

The few studies on coaching disability sport underpinned some barriers that coaches have to surpass in order to build their coaching knowledge. Amongst the barriers is the fact that mediated learning situations are very limited (Cregan, Bloom, & Reid, 2007; DePauw & Gavron, 2005; Tawse, Bloom, & Sabiston, 2012). Moreover, if compared to able-bodied sport disability sport coaches have minimal coaching materials (e.g., books, workshops) specific to their context (Cregan et al., 2007; McMaster, Culver, & Werthner, 2012; Tawse et al., 2012), which hinders their efforts to engage in these specific unmediated learning situations. Likewise, the opportunities for disability sport coaches to act as sounding boards or to participate in 'communities of practice' are limited due to the low number of coaches/peers with whom they might interact (McMaster et al., 2012). Therefore, looking how coaches learn from a lifelong learning perspective seems to be an alternative to expand our understanding of the disability sport context.

Coaching researchers (e.g., Callary, Werthner, & Trudel, 2012; Trudel, Gilbert & Werthner, 2010) have used Jarvis's theory of human learning because it is comprehensive and allows for a holistic view of coach learning. Jarvis (2009) emphasizes that individuals have the opportunity to learn through every experience. Moreover, *biography* is the sum of previous experiences through which one has learned (i.e., knowledge, skills, emotions, etc.). Jarvis stated that "experience is when we are conscious of the world, are aware of the specific situation and know that we are having an experience, even if we do not actually acknowledge it at the time" (p. 30). Furthermore, Jarvis noted that having an experience depends on the person's senses in order to perceive the external stimuli and become aware of the situation.

A more complete version of the definition of learning is the combination of processes throughout a lifetime whereby the whole person – body and mind– experiences social situations, the content of which is then transformed cognitively, emotively or practically and integrated into the individual person's biography resulting in a continually changing (or more experienced) person. (Jarvis, 2009, p. 25)

Therefore, Jarvis (2006) proposed that a person's biography is being constantly changed and developed as a result of learning that occurs within the *life-world*; that is the combination of experiences in every context (life-wide) throughout time (lifelong). Conforming to Jarvis, *primary socialization* involves the initial interactions that children have with their primary caregivers and/or family members. As individuals grow and develop, they interact with a greater variety of people and learn in other sub-groups, such as

school and sports clubs, in a process of *secondary socialization* (Jarvis, 2006, 2009). Jarvis defined *disjuncture* as the feeling of unease an individual faces when exposed to a situation in which his/her biography is not ready to cope. Finally, Jarvis affirmed that learning is a lifelong process in which we are the result of our own learning. From an existentialist perspective, Jarvis states that as humans, we must learn to live and live to learn.

According to our knowledge, there is a lack of studies on disability sport, especially in sailing. Therefore, the purpose of this research was to examine the becoming of an adaptive sailing coach from a lifelong learning perspective.

Methodology

Life-story

Narrative inquiries and other types of research methodologies that focus on biographical accounts have gained popularity within education (Armour, 2006), elite coaching (Jones, Armour, & Potrac, 2003), and disabled athletes (e.g., Kavanagh, 2012; Rees, Smith, & Sparkes, 2003); but have not yet been used to explore coaches of athletes with disabilities. The possibility of presenting experience holistically in all its complexity and richness is amongst the strengths of a life-story approach (Webster & Mertova, 2007). Although a life narrative is not aimed to provide generalizations from a positivistic standpoint, it affords the provision of valuable insights into the complexity of the phenomenon under scrutiny (Jones et al., 2003). Webster and Mertova (2007) argued that “narrative tends to highlight critical episodes and events, and in so doing provides insights into human understanding, as well as manageable ways of focusing outcomes and recommendations for improvement” (p. 69). Furthermore, Armour (2006) enthusiastically

shared her belief that “this form of research has an unrivalled capacity to reach teachers [coaches]” (p. 465).

The life-story approach as a means to examine the way in which coaches learn to coach is a complementary fit with the lifelong learning perspective. According to Jarvis (2009), learning takes place as a result of the learner’s biography and the meaning the learner gives to a particular situation. Therefore, the use of a methodology that allows the participant to freely express the events, persons, contexts, and situations in which or with whom learning occurred provides the researcher with the depth necessary to fully explore such phenomena. The strategies used to explore the coach’s life-story are presented below.

Participant

Purposeful sampling (Creswell, 2007; Marshal, 1996) was used to recruit one disability sport coach who met certain pre-established criteria. The recruitment criteria are indicated as the participant is presented. Some characteristics were not part of the criteria and are noted as a “bonus.” Jenny Davey, a 34-year-old female from the suburbs of a Canadian metropolitan city who has assumed a variety of roles in multiple disability sports (bonus) since 1994, and most importantly, in adaptive sailing since 2002 (criteria a and b). The programs she worked at provided services ranging from 40 to 150 sailors with a disability (criteria c). The sailors had different types of impairments (sensorial, ambulatory, intellectual) (criteria d). Within sailing, Jenny coached introduction and development race teams (criteria e). Multiple athletes progressed to Paralympic classes (2.4mR and Sonar) having competed at Canada Games and a number of international competitions (criteria f). Moreover, one athlete represented Canada at the London

Paralympic Games (bonus). Within the last 10 years, she has worked as the program manager and head coach at adaptive sailing associations in three Canadian provinces (bonus). Jenny was responsible for managing a staff ranging from 3 to 7 people (bonus). As a coach developer (bonus), Jenny was selected to design the “National Coaching Persons with a Disability Professional Development Module’ for Canadian sailing instructors and taught the pilot ‘Train-the-Trainer course’ to representatives from each province. Currently, Jenny is finishing a Master’s of Arts in coaching studying how novice adaptive sailing coaches learn to coach (bonus). As stated by Jarvis (2009), such a profile would entail ample disjuncture, and therefore require the person to engage in learning processes to regain harmony.

The project was approved by the university Research Ethics Board. Although the participant was offered the use of a pseudonym, she chose to be portrayed under her real name. Such praxis is not novel, having been previously used in studies about athletes with disabilities (e.g., Brittain, 2004; Kavanagh, 2012). However, pseudonyms were used to guard the privacy of the people who are part of Jenny’s life story.

Data Collection

Data were gathered over a six-month period using various methods: Modified Rappaport Time Line (RTL), in-depth interviews, document analysis, focused interviews, and member check interviews. A modified version of the Rappaport Time Line (Langley & Knight, 1999; Rappaport, Enrich, & Wilson, 1985) was used to explore the coach’s life milestones and guided the in-depth interviews. In short, the RTL consisted of asking the participant to elaborate, using a blank sheet of paper, on the most important milestones

(e.g., events, people, facts, contexts) about her becoming a coach. The only instruction given was to use a sheet of paper in which *birth* and *present* represented opposite ends. The coach took one week to return the RTL and produced a two-meter-long sheet. An example of part of the RTL is presented in Figure 2.

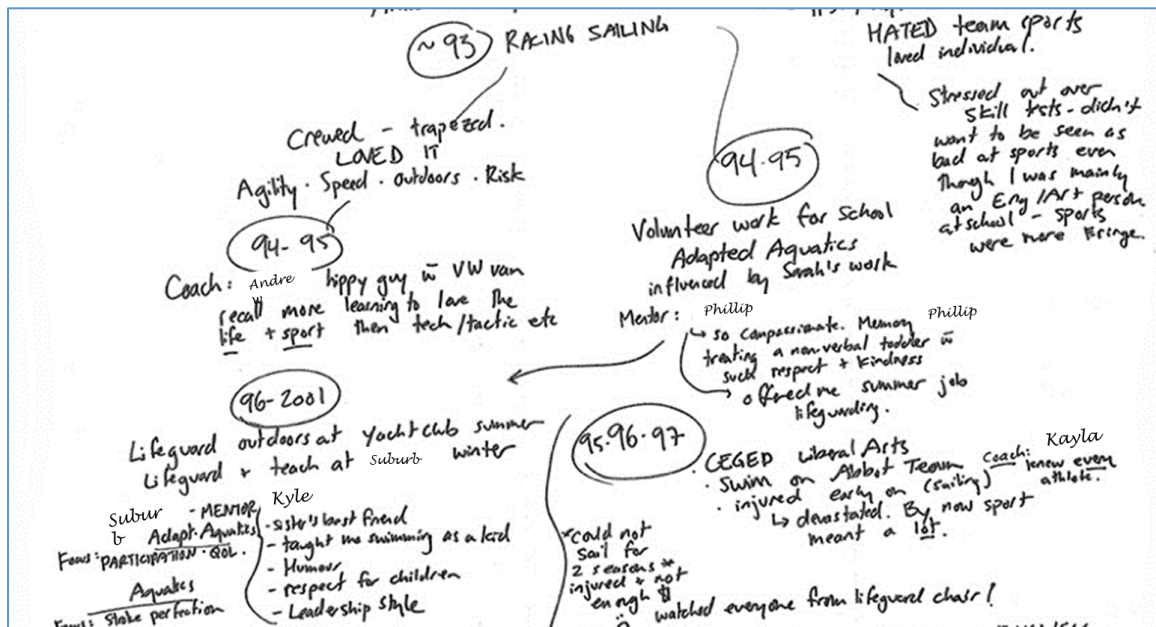


Figure 2. Excerpt from the timeframe 2 at the RTL.

The in-depth interviews were based on life-story interviews, which made this phase exploratory in nature. During five in-depth interviews that totaled nearly six hours in length, probing questions were used to clarify the unfolding of events and other information presented on the RTL. In order to cover every aspect of the RTL, before each in-depth interview, the interviewer listened to the final minutes of the previous interview and made notes of points not yet covered. A total of 70 pages of the coach's personal documents (e.g., adaptive sailing documents, manuals, guides, emails, reports, and questionnaires) were

utilized as a source of data and helped to understand the context of disability sport and create probe questions. Three focused interviews (Yin, 2009) were conducted before (42 minutes-long), during (29 minutes-long), and after (82 minutes-long) an international competition that occurred at the end of the data collection period. Finally, the coach member checked the findings.

Data Analysis

The data were analyzed according to Braun and Clarke's (2006) six phases of thematic analysis: familiarizing, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. The process of identifying the themes was both deductive and inductive. The deductive portion used Jarvis's (2009) theory of human learning to scaffold the main categories (e.g., biography, disjuncture, and life-world). Inductive themes (e.g., timeframes) emerged as Braun and Clarke's phases were performed back and forth. The QSR International's NVivo 10 qualitative data analysis software (QSR, 2012) was utilized to organize, manage, and build a track of evidence from different sources of data. Interviews were recorded using a digital voice recorder, transcribed verbatim, and subjected to a peer check of random excerpts to find the transcriptions' quality rates (Poland, 1995).

Findings and Discussion

Jenny's Story

Four timeframes (TF) were uncovered: (a) TF1, from her birth to 1993, presenting her early years and the influences of her upbringing; (b) TF2, from 1994 until 2001, when Jenny worked as an adapted swimming instructor and pursued her physical education

degree; (c) TF3, from 2002 until 2009, when she worked as the head coach and manager at an adaptive sailing program in province X; and (d) TF4, from 2010 to 2013, when she worked at adaptive sailing programs in province Y and province Z and started her Master's degree in coaching. Callary, Werthner, and Trudel (2011) presented a similar division in which the biographies of five women coaches were divided in timeframes. The timeframes presented the influences of different aspects of her life that overlapped in many ways, assisting her development as a person, as a head coach, and as a coach developer of adaptive sailing.

TF1 age 0 to 15 (from 1978 to 1993). The RTL started with the word 'born' inside a bubble. Jenny described herself as the third child, nine years younger than her closest sibling and having to "[keep] up" with siblings made her very diligent. "At that time, I did not understand the age difference, so I thought 'Why can't I do this if they can?!' (Laughs)." She described being raised in an adult house and often exposed to conversations that were beyond her maturity level: "I remember being pretty little and my sister would be talking about papers that she was working on when she was in high school and university." Jenny also noted that the discussion of academic work continued after TF1 as she often asked her father to review some of her own graduate work due to his proficiency in English (Master's degree in English literature). The influence of her parents' occupations was acknowledged. "My dad was a teacher, and my mom was a nurse, so from a very young age, I pictured myself having a job where I would work with people, helping them somehow."

The findings showed that Jenny's life-world was composed of a highly educated family. Jarvis (2009) acknowledged the importance of the significant others with whom children recognize themselves during primary socialization and suggested that what is learned during that time is carried by the person throughout life.

Sports and disabilities surrounded Jenny's early years and how that exposure took place is an interesting feature of her upbringing. During an interview, she mentioned that similar to many other children growing up in the suburbs of a Canadian metropolitan city in the early 1980s, she was exposed to several leisure activities and sports. "[I was] always playing outside – street hockey, tennis, cross country ski, hide and seek." The disability aspect was a vibrant 'toile de fond' of her childhood presented by significant people in different ways. For example, her mother worked at the Metropolitan Association for the Blind: "I just remember people coming home talking about their day. My mom happened to have a 95-year-old blind lady teaching her how to knit. The usual, you know? It wasn't crazy (laughs)." Her sister was a specialist in adaptive recreation.

My sister is 10 years older than me and she started teaching at the pool with the adapted swimming program when she was about 17, so I was really little when she was first teaching kids with disabilities. I really looked up to her and just assumed that I would do the same when I was older. She also became a teacher, so she and my dad were both inspirations for me.

As reported by Jarvis (2009), children begin to learn to "reflect their social position through the significant others with whom they share meaningful situations" (p. 74). Within coaching literature, Callary and colleagues (2011) indicated that what five women coaches

learned from their family upbringing and the social context of their childhood influenced their interest in pursuing coaching as a career and the ways they chose to coach. The first concrete opportunity for Jenny to follow her childhood aspirations occurred in 1994, and since then Jenny has been teaching sports and/or coaching in multiple contexts.

TF2 age 16 to 22 (from 1994 to 2001). A line that divided Jenny's sport experiences in and outside education was drawn on this section of the RTL. In terms of influential experiences inside education, she mentioned her participation in organized sports (such as swimming) during high school and university (sailing) and she briefly described the importance of her physical education degree. These findings support recent studies in coaching science that suggested coaches' athletic experiences (e.g., Callary, et al., 2011; Gilbert, Côté, & Mallet, 2006) and college and university education (e.g., Nash & Sproule, 2009; Werthner & Trudel, 2006) are important contributions to their coach development. Outside education, Jenny emphasized the influence of the adaptive aquatics program on her process of becoming a coach. Although the findings presented in this timeframe focus on the adaptive aquatics context, it is crucial to keep in mind that becoming is a complex process and that the life-world encompasses the wider society in which the learner lives (Jarvis, 2009).

Jenny taught recreational adaptive swimming classes to children ages 3 to 16. From the start, she felt very welcomed by the community because the club was where her sister used to work and where Jenny had taken her swimming lessons:

I was Elizabeth's little sister. I knew all those people, they were just people who were my sister's friends, and they were people who hung out at my house...Then

when I started working at the pool, it was interesting because I always felt so comfortable around all these people who were senior people in the building.

Callary and colleagues (2012) recently studied the influence of primary and secondary socialization within coaches and found similar results. In Jenny's secondary socialization (Jarvis, 2009) at the swimming club, some significant individuals from her primary socialization, including Jenny's sister, were key people at the adaptive program that made her feel very comfortable in that environment.

The swimming club was pointed out as integral to Jenny's learning process. The organization was a recognized able-bodied Canadian swimming powerhouse that also ran adaptive programs. In order to maintain high standards of excellence, the club structured a number of initiatives to develop the instructors such as monthly workshops and mentoring, but it also afforded unstructured interactions with others. The club organized staff training on several topics for the instructors. Specifically regarding adaptive swimming, Jenny gave the following description:

Every fall before all the programs started up they would have a one day workshop for the people who worked with the adaptive program and they would have [Dr.] Greg Reid from that article [i.e., Cregan, Bloom, & Reid, 2007]. My sister would come in and they might have an occupational therapist come in, and people would come and give a 45-minute talk.

This finding supports the coaching literature that proposed mediated learning opportunities to be important to expand coaches' understanding of areas they did not

previously know existed (Werthner & Trudel, 2006), which in turn facilitated the creation of unmediated learning opportunities by the coaches.

Jenny named mentors and peers who could be accessed as sounding boards. Specifically, the club designated a mentor to every new volunteer. “When you go to volunteer you are paired with an experienced instructor....I volunteered with him for 10 weeks, every Sunday, all day.” Moreover, Jenny had the advantage of having another mentor in Kyle, her sister’s best friend, a situation that afforded numerous interactions. “I think that I probably asked a lot more questions to Kyle than I would have had I not known him so well.”

The findings lend some support for recent coaching studies on mentoring (Jones, Harris, & Miles, 2009). A survey with more than 600 coaches from the United Kingdom also found that coaches benefited from working with a close mentor (Nash & Sproule, 2012). Jenny’s relationships with her mentors opened the door to numerous unmediated learning situations whenever she faced challenging situations (Trudel & Gilbert, 2006).

Evidence revealed that Jenny constantly sought interactions with other instructors as well. These exchanges were facilitated by the way the activities were organized at the gym or pool. “The kids would walk to the gym and there would be a dozen instructors who have taught them before, who know them. So you can ask a lot of people for tricks or something.” Furthermore, Jenny stated what she learned from the children’s parents and other caregivers, “Most of these kids also have other help; they would go to specialized schools. They had an occupation therapist, so sometimes you might be speaking to their parents about what other kinds of things they are doing.” This finding align with Cregan

and colleagues' (2007) findings about the use of others (e.g., parents, caregivers, occupational therapists) to adapt coaching practice to the disability sport athlete's needs.

Jenny reflected on her process of becoming, from being a beginner instructor in 1995 to a more experienced one in 2002.

I started when I was in high school and I stopped when I graduated from university. So you wouldn't be the same person....some of it, it's just like a skill-set that you develop....When I went back two years ago [2010], it was so funny. Right away I have some little kid and I was helping her go up a ladder and without realizing all my movements of how to help this kid, where to put her hand, how to help her move the leg over, how to support her, it was just like picking up a sport again and going through it again; like muscle memory of what to do to help a kid to go up a ladder and the key phrases that you use and the way you speak, all of that just came back.

TF3 age 24 to 31 (from 2002 to 2009). For TF3, two major changes were observed in how Jenny organized the RTL. The first change is the two columns that divided this timeframe were named "school year" on the right side and "summer" on the left. The school year column presented the years as a substitute teacher, the period as a full-time English teacher, and towards the end of the timeframe, some winter sports activities. Her commitment to coaching was emphasized during an interview in which Jenny mentioned a joke she would tell about her full-time teaching career being her "off-season job". This balance between her two careers were confirmed by the equal emphasis both columns received on the RTL and during the in-depth interviews. The second major change related

to the different roles Jenny took on in the above mentioned contexts. While the first timeframe portrayed a student/instructor who taught adaptive swimming at the recreational level, this timeframe showed a professional in a variety of contexts who taught high school, coached over a hundred athletes (mainly adults) with a disability, and managed a team of adaptive sailing staff.

Some environmental aspects were seen to have had a crucial influence on her learning within the three most important contexts of this timeframe: substitute teaching, fulltime teaching, and the Adaptive Sailing Association (ASA). In the RTL, Jenny capitalized the words “TAUGHT EVERYTHING, EVERYWHERE” to describe the two years of substitute teaching when she lectured in French, in English, in classrooms, and in gymnasiums in more than 30 different schools and from pre-kindergarten through grade 11. Just above those words she wrote in bullet points the words “flexibility, think on feet, adapt, be courageous” to explain which skills she developed in this environment.

I was already a pretty outgoing person to begin with, but it is kind of crazy because you show up in a different school every day, you don’t know where anything is, you don’t know how the kids are, you don’t know who to ask for help; you need to go and find out who to talk to.

Jarvis (2009) proposed that whenever the learner cannot take the world for granted anymore an opportunity to learn occurs. Evidence suggested that all three contexts that composed Jenny’s life-world produced numerous disjuncture experiences and therefore, offered a rich environment for learning. Furthermore, Schön (1983) provided similar

examples of thinking on “one’s feet” to explain how teachers utilize reflection (to become reflective practitioners) to solve issues on a daily basis.

In full-time teaching, the themes related to how this context supported Jenny’s reflective skills (e.g., planning). On the RTL, Jenny wrote that, “the English department was the envy of all departments” and graphically emphasized the word “COLLABORATIVE” as the main reason why the department was considered so enviable. This sharing environment was structured upon departmental meetings that happened every eight-day cycle and at special times of the year. The meetings focused on several goals, from the alignment of the language used to communicate with parents to planning and evaluating the year:

We made sure that they [the texts] all built upon each other; like the kids in grade 8 have done that, that’s going to be cool because in grade 9 they’ll do this. So we were always planning. So even if you didn’t teach grade 8 you’re always collaborating with teachers who did, and planning so that all five years have a clear focus and pathway for the kids.

Jenny suggested that working in such a collaborative way carried over to her coaching life-world:

We met together so many times; we had so many opportunities to raise our concerns, so many occasions to give each other feedback, with a lot of chances to enjoy working together, and I think that’s something that I always try to do anytime that I coach.

Likewise, Ruch (2005) proposed that collaboration, provision of a clear vision or goals, and appropriate feedback are crucial to developing reflective skills in social workers.

Similar to the TF2, the contexts were conducive to interactions which created learning opportunities. “If you go in any school, if you go hang out in the teachers room, teachers are always, always, always talking about their students, and trying to problem solve....” Additionally, the sailing club gave Jenny the autonomy to build a sailing program from scratch. Therefore, Jenny implemented an environment where everyone would learn from others. “I was there for 8 seasons. It was certainly not perfect and I definitively have lots of areas that I’m not skilled at, but I think with the staff cohesiveness, I did a good job.” Whereas in TF2 Jenny mentioned the influence of four persons (two mentors and two former coaches), in this timeframe she wrote the names of mentors (two at the school and one at the club), coaches (five from her program and two from other cities), and athletes (six). A major theme that emerged inductively was related to what she learned with the coaches that she named on the RTL. Within the group of coaches from the adaptive program, Jenny noted details of their biographies that were related to what they individually brought to the team. She presented the coaches as knowledgeable sailors (e.g., medaled in Canada games, national youth champion) but also pointed some characteristics that transcended sport (e.g., PhD in statistics and university professor). For instance, Jenny wrote on the RTL that a coach who was studying engineering helped her to “be logical” and “use resources effectively.”

Comparable findings of empirical studies that borrowed Lave and Wenger’s (1991) theory of a situated learning and investigated social learning in coaching (e.g., Culver &

Trudel, 2006, 2008; Occhino, Mallet & Rynne, 2013) discussed how work environments can enhance coach learning. Jarvis (2009) also mentioned the work of Lave and Wenger to exemplify the process of learning the job or when a person moves from the periphery to the center of an organization.

TF3 marks Jenny's first years of teaching and coaching sailing. Although Jenny had a competent background in teaching swimming to children with developmental disabilities, in this timeframe she began coaching sailing to adults with physical disabilities. The data suggested that Jenny paired with people from different contexts (and even cities) who would help the development of her learning in several areas such as characteristics of physical disabilities, management of a disability sport program, coaching athletes with disabilities, and leading a team. John, a sailor and occupational therapist at the ASA, was named as her mentor and supported her learning about physical disabilities. Chris, a coach in a large city, shared valuable managerial tips. Roger, a coach in a mid-sized city, did race debriefs with Jenny and worked closely with her on events. "Roger and I always would be taking notes on our athletes, but also on everybody else [other athletes]." Finally, Kara and Doris, heads of the English department, were leadership role models, and Jenny strove to adapt and adjust the approaches of those models to her coaching style.

To process information from various sources in order to apply it to her specific context required a sophisticated approach to learn (e.g., making meaning, working with meaning), and these approaches are by definition, considered deep learning (Moon, 2004). Such a deliberate approach to learning demonstrates how Jenny sought to be effective in advancing her coaching knowledge. Indeed, Jenny was chosen to create the 'Sail Canada

Athletes with a Disability' module, in 2009, which is indicative of her high level of expertise in the context of developmental adaptive sailing.

As her commitments to school and sailing both grew in size and scope, Jenny decided it was time to take a break and reflect on the direction she wanted her life to take. Near the end of this timeframe, she seized some opportunities to coach and travel to international competitions, increasing her Paralympic network.

TF4 from 2010 – 2013. The fourth timeframe presented evidence of her pursuit of personal and professional learning opportunities in novel settings, such as applying to graduate school and working at adaptive sailing programs in other provinces. On the RTL, Jenny mentioned the two different Master of Arts programs she applied to and how they influenced the directions of her eventual pathway. Jenny drew a sad face to illustrate how she felt after being rejected by a highly recognized university. Below the year 2010 on the RTL, she wrote: “Margaret says, ‘Why don’t we go see what we can learn in Province Y?’” During an in-depth interview she contextualized her best friend’s quote as an attempt to raise her spirit. During the time she was in City Y, the line that divided the RTL in previous timeframes disappeared, which changed the flow during 2010. The year 2011 showed how Jenny’s acceptance to a graduate program opened the doors to work in a different province for a couple seasons and also exposed her to “literature, colleagues, and friends [who] prompted me to reflect on coaching.” Moreover, 2011 also brought back the line that separated the sailing contexts from experiences at the university and with her family.

Jarvis (2009) assumes that learning takes place in several contexts. Within coaching science, a number of authors (e.g., Nash & Sproule, 2009; Werthner & Trudel, 2009)

suggested that coaches expanded their development through experiences inside and outside of sport. Moreover, Werthner and Trudel (2009) found that elite coaches would participate in mediated learning situations in order to gain even a slight edge.

TF4 was different not only because a retrospective description was being made, but also because some of the situations discussed were currently occurring. As demonstrated through the former timeframes, at this point, Jenny was a proficient head coach who worked in contexts where she utilized others to solve disjuncture. While Jenny narrated her story during the interviews about the TF4, she often offered examples that contrasted her reality between TF4 to TF3 and the able-bodied youth sailing programs that she knew. Jenny noted,

If you go and teach youth sailing...at [city X], or at [city Y], or at [city Z], my impression is that, for the most part your experience is going to be quite similar.

There are limits on class size, on coach-to-student ratio, the skill set that you teach is very similar, your routine every day is probably going to be very similar.

However, Jenny continued by stating that at “the different programs that I worked at, the environments have been drastically different and the roles I have had were very different”. For instance, “In [city X] 90% of the athletes have physical disabilities, in [city Z] 60% of the participants have developmental disabilities, which influenced several aspects, from the goals of the program to the philosophy of the coaches.”

Jenny’s reasoning process of comparing the present timeframe with the previous ones can be interpreted as *cognitive house-keeping* (Moon, 1999, 2004) or a process of *working with meaning* to re-organize her cognitive structure. Moon proposed the

representation of the learning as a way in which the learner shapes the content of his/her reflections in many ways. This process creates secondary learning through internal learning situations (Werthner & Trudel, 2006). However, Moon (2004) stressed the importance of the depth of reflection assuming that descriptive accounts do not represent a very deep approach to learning from experience. The findings of this study presented a mix between descriptive accounts that illustrated the contexts to the interviewer and a conscious effort to explain in a cohesive way the different perspectives within those contexts, such as the social norms engrained in every club she worked.

Unlike TF2 and TF3, in which the organizations where Jenny worked designed access to peers (e.g., TF2 at the aquatic program, TF3 at the school), during TF4 Jenny played an important role in developing this learning situation for knowledge creation. She mentioned a number of deliberate initiatives she created that were designed to connect with peers. For instance, Jenny sought information from the previous coach of the city Y program: “I literally sent him a word document that had 27 questions on it.” Furthermore, she implemented weekly meetings in which novice staff members would “teach a disability to the group” and collectively construct their knowledge. Also important was Margaret and Jenny’s engagement in critical reflections with a city W head coach. The process of questioning rooted assumptions about the city X program in light of different perspectives (e.g., independent sailors, philosophy, and equipment) was acknowledged to be an important part of understanding their practice. “We can see why we made our decisions in city X, that [talk] really made us think, yeah!”

Although Jenny kept learning from her peers (e.g., coaches, athletes, occupational therapist), in TF4 those interactions occurred in two additional ways. First, she has been in charge of developing novel coaches for a while, and therefore, was the novice coaches' mentor. Moon (1999) proposed that as a person presents ideas to a group, the reflection on that representation is a "means of integrating the learning into the cognitive structure and relating it to previous knowledge" (p. 155). Second, the people from the other two provinces provided different perspectives on their unique philosophies of coaching that prompted Jenny to critically reflect on her own philosophy. Moon (1999) noted that "discussion of a topic in a small group could facilitate this form of reflection" (Moon, 1999, p. 155). In this vein, the findings of the present study align with Moon's proposition.

At the start of this timeframe, Jenny had been a head coach for eight years and involved in disability sport for 16 years. On the RTL, just below a circle that indicated the city Y disability sport association, she wrote: "By now my role, I think, is seen more as someone who comes in to 'fix up' Disability Sport Associations." This might explain why, as opposed to the data from the TF2 and TF3, new mentors were not named either in the RTL or during the in-depth interviews. At this stage she has been the mentor of novice coaches for a number of years. Jenny emphasized that mentors from the former timeframes became friends and she constantly interacted with many of them: "Last week I had dinner with John at city X."

Similar findings regarding the use of mentors were proposed by other studies. For example, recent empirical support provided by case studies on expert coaches (Nash & Sproule, 2009; Occhino et al, 2013) and a survey with coaches from different levels (Nash

& Sproule, 2012) suggested expert coaches considered mentors as very important to advance their knowledge at initial stages, but disregarded the importance at higher stages. Furthermore, the findings of this study also suggested the same change on the mentoring bond where Jenny would have a relationship of mentor and protégé at the beginning of her career and the relationship evolved to one of trust and respect in which Jenny and her mentors shared views and opinions at higher levels of proficiency (Nash & Sproule, 2009, 2012; Occhino et al, 2013).

Our evidence suggests that both the social context and the challenges of the disability sport context were crucial factors in Jenny's learning process. As a coach developer, Jenny acknowledged the necessity of strengthening the network amongst coaches. She advocated for the participation in major competitions to develop herself and others.

You have to send a coach there [major competitions], not only is it good for the sailors, but that coach is going to see all these different boat setups, they're going to meet different sailors, they're going to meet other coaches, they're going to meet other program organizers and they're going to learn a ton; they're going to get to know the community, they're going to have so much fun and it's going to keep them coming back [to the club within the next season].

The learning opportunities provided by competitions could be interpreted in two ways. First, the competition could be a primary source of disjuncture, in which a coach will face many different learning opportunities due to the different approaches of each club and its coaches. Jarvis (2009) proposed that disjuncture is crucial to the learning process.

Second, the competitions provided interactions with other coaches, athletes, and supporters increasing Jenny's social context.

The challenging task of finding materials specific to disability sport influenced Jenny's decision to apply to graduate studies.

A lot is going to be similar to able-bodied sport of course – at the end of the day, an athlete is an athlete – but there are some aspects that are particular to coaching athletes with disabilities and it is hard for coaches to find information and support to learn those things. A lot of them end up feeling overwhelmed and burn out and get out of the sport, go back to coaching able-bodied athletes, and we lose potentially great coaches. I experienced a lot of that frustration myself over the years, so I wanted to go back to school and learn more, both for myself and maybe other coaches as well.

As a result, Jenny chose to conduct action research on how a group of novice adaptive sailing coaches learn to coach, which would provide her with a better understanding that will be translated to the Sail Canada program.

Finally, the findings revealed that, regardless her biography, every time Jenny worked at a new adaptive sailing club, she also needed to deliberately engage in a process of “learning the ropes” (Jarvis, 2009, p. 45) in order to understand the different philosophies within each province. Such an effort to understand each club's different perspectives, however, changed her biography as she critically reflected (Knowles et al., 2005; Moon, 1999, 2004).

Conclusion

This study sought to examine the process of becoming of an adaptive sailing coach from a lifelong learning perspective (Jarvis, 2006, 2009). The findings revealed that Jenny was exposed to environments that optimized her learning process in several ways. The contexts in which Jenny learned were shown to be very collaborative and, in turn, conducive to knowledge creation (Jarvis, 2009; Ruch, 2005; Schön, 1983). The three types of learning situations (i.e., mediated, unmediated, and internal) were portrayed within every timeframe (Trudel et al., 2013; Werthner & Trudel, 2006). Evidence suggested that social interactions (Jarvis, 2009) acted as a major part of how Jenny developed her coaching. As the time progressed and Jenny was exposed to a mixture of challenges (i.e., disjuncture; Jarvis, 2009) and learning situations (Trudel et al., 2013; Werthner & Trudel, 2006), her biography advanced in each context. Within every timeframe, the coach named a number of people that were available to help her learn and develop (e.g., mentors, professors, colleagues, and athletes). The findings also implied the identification of peers within different areas of expertise (Bloom, 2013; Occhino et al., 2013). The mentors named during TF2 and TF3 became close friends at more advanced stages of learning (Occhino et al., 2013; Jones et al., 2009).

A couple of this study's limitations must be pointed out. First, the coach was so collaborative, supportive, and open to share her views through innovative but time-consuming data collection methods, that it raises questions about how hard it would be to find others who would fit such a profile for future research. Second, the retrospective nature of the data gathering made the analysis more difficult. We provided vivid examples

that shed light on particular conditions that influenced how an adaptive sailing coach working at the recreational and developmental contexts learned; however, these findings are not meant to be generalized to other contexts.

The study's implications for coaching developers suggest that optimal learning environments can be shaped if administrators take into consideration how to promote different learning opportunities (Trudel et al., 2013) in order to develop the skills necessary to resolve the disjuncture. For instance, coaches should be exposed to mediated learning opportunities such as workshops or seminars in order to build/expand their professional knowledge base at the earliest levels. As the coaches gain competence, administrators could promote more interactions with other coaches, athletes with a disability, occupational therapists, and caregivers. Administrators could facilitate the progression from proficient to expert levels by providing coaches with people who will question their practices and expose them to broader perspectives (Trudel & Gilbert, 2013) and therefore achieve deeper levels of reflection (Moon, 1999, 2004). Future research could make use of other innovative methods to gather qualitative data. For example, the Rappaport Timeline could bring different perspectives to coaching science as the participants would engage in reflection even before the interviews begin, as opposed to relying heavily on interviews as the main source of gathering data (Culver, Gilbert, & Sparkes, 2012). Reflective skills take time to develop (e.g., Knowles et al., 2005; Wildman & Niles, 1987), therefore, future research could also focus on the evolution of the reflective process and could, potentially, borrow from Moon's (2004) 'depth of reflection' concept as a theoretical framework.

References

- Armour, K. (2006). The way to a teacher's heart: Narrative research in physical education. In D. Kirk, D. Macdonald, & M. O'Sullivan (Eds.), *Handbook of physical education*. (pp. 467-486). London: SAGE Publications Ltd. doi: 10.4135/9781848608009.n26
- Athletics Canada (2012). *Para classification background* [Web pdf]. Retrieved from <https://www.athletics.ca/files/nationalteamprograms/eventgroups/speedpower/paraclassificationbackground.pdf> [Accessed: 12 Aug 2012].
- Bloom, G. (2013). Mentoring for sport coaches. In P. Potrac, W. Gilbert, J. Denison. *Routledge handbook of sports coaching* (pp. 476-485). London: Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Brittain, I. (2004). Perceptions of disability and their impact upon involvement in sport for people with disabilities at all levels. *Journal of Sport & Social Issues*, 28(4), 429-452.
- Burkett, B. (2010). Technology in Paralympic sport: performance enhancement or essential for performance? *British journal of sports medicine*, 44(3), 215-220.
- Burkett, B. (2013). Coaching athletes with a disability. In P. Potrac, W. Gilbert, J. Denison. *Routledge handbook of sports coaching* (pp. 196-209). London: Routledge.
- Callary, B., Werthner, P., & Trudel, P. (2011). Shaping the way five women coaches develop: Their primary and secondary socialization. *Journal of Coaching Education*, 4(3), 76-125.

- Callary, B., Werthner, P., & Trudel, P. (2012). How meaningful episodic experiences influence the process of becoming an experienced coach. *Qualitative Research in Sport, Exercise and Health*, 1-19.
- Canadian Paralympic Committee (2013). *Summer Paralympic sports sailing*. Retrieved from: <http://www.paralympic.ca/en/Sports/Summer/Sailing.html> [Accessed: 25 Jun 2013].
- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching* 4(3), 307-323.
- Cregan, K., Bloom, G. A., & Reid, G. (2007). Career evolution and knowledge of elite coaches of swimmers with a physical disability. *Research Quarterly for Exercise and Sport*, 78(4), 339-350.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Culver, D., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the potential for learning through interactions. In R. L. Jones (Ed.), *The sport coach as educator: Re-conceptualising sports coaching* (pp. 97-112). London: Routledge.
- Culver, D., & Trudel, P. (2008). Clarifying the concept of Communities of Practice in sport. *International Journal of Sports Science & Coaching*, 3(1), 1-10.
- Culver, D., Trudel, P., & Werthner, P. (2009). A sport leader's attempt to foster a coaches' community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365-383.

- Culver, D., Gilbert, W., & Sparkes, A. (2012). Qualitative research in sport psychology journals: the next decade 2000-2009 and beyond. *Sport Psychologist*, 26(2), 261-281.
- Cushion, C. J. (2006). Mentoring. Harnessing the power of experience. *The Sports Coach as Educator: Re-conceptualising sports coaching*, 128-144.
- DePauw, K. P., & Gavron, S. J. (2005). *Disability sport* (2nd ed.). Champaign IL: Human Kinetics.
- Disabled Sailing Association of British Columbia (2013). *Equipment Martin16*. Retrieved from: http://www.disabledsailingbc.org/equipment_martin16.shtml [Accessed: 25 Jun 2013].
- Ghaye, T., Lee, S., Shaw, D.J., & Chesterfield, G. (2009). When winning is not enough: learning through reflections on the 'best-self'. *Reflective Practice*, 10 (3), 385-401.
- Gilbert, W., Côté, J., & Mallett, C. (2006). Developmental paths and activities of successful sport coaches. *International Journal of Sports Science and Coaching*, 1(1), 69-76.
- International Federation for Disabled Sailing (2013). *Boats & adaptations*. Retrieved from: <http://www.sailing.org/ifds.php> [Accessed: 25 Jun 2013].
- International Paralympic Committee (2013). *Athletics results*. Retrieved from: <http://www.paralympic.org/Athletics/Results/Results> [Accessed: 25 Jun 2013].
- Jarvis, P. (2006). *Towards a comprehensive theory of human learning: Lifelong learning and the learning society* (Vol. 1). New York, NY: Routledge.
- Jarvis, P. (2009). *Learning to be a person in society*. London: Routledge.

- Jones, R. L., Armour, K. M., & Potrac, P. (2003). Constructing expert knowledge: A case study of a top-level professional soccer coach. *Sport, Education and Society*, 8(2), 213-229.
- Jones, R. L., Harris, R., & Miles, A. (2009). Mentoring in sports coaching: A review of the literature. *Physical Education and Sport Pedagogy*, 14(3), 267-284.
- Kavanagh, E. (2012). Affirmation through disability: one athlete's personal journey to the London Paralympic Games. *Perspectives in Public Health*, 132(2), 68-74.
- Knowles, Z., Borrie, A., & Telfer, H. (2005). Towards the reflective sports coach: Issues of context, education and application. *Ergonomics*, 48(11), 1711-1720.
- Langley, D.J., & Knight, S.M. (1999). Continuity in sport participation as an adaptive strategy in the aging process: A lifespan narrative. *Journal of Aging & Physical Activity*, 7, 32-54.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge university press.
- Le Clair, J. M. (2011). Transformed identity: from disabled person to global Paralympian. *Sport in Society*, 14(9), 1116-1130.
- Lee, S., Chesterfield, D., Shaw, D.J., & Ghaye, T. (2009). Editorial: Exploring the potential for reflective learning in sport. *Reflective Practice*, 10 (3), 285-293.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, 13(6), 522-526.
- Martin16.com (2012). *Home - Martin 16 sailboat for able and disabled sailors*. [online]
Retrieved from: <http://www.martin16.com/> [Accessed: 26 Jun 2013].

- McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability: a look at their learning experiences. *Qualitative Research in Sport, Exercise and Health*. 1-18. doi:10.1080/2159676X.2012.686060
- Moon, J. A. (1999). *Reflection in learning and professional development: Theory and practice*. Psychology Press.
- Moon, J. A. (2001). *Short courses and workshops: Improving the impact of learning, training and professional development*. London: Kogan Page.
- Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. London: Routledge Falmer.
- Nash, C., & Sproule, J. (2009). Career development of expert coaches. *International Journal of Sports Science and Coaching*, 4(1), 121-138.
- Nash, C., & Sproule, J. (2012). Coaches perceptions of their coach education experiences. *International Journal of Sport Psychology*, 43(1), 33.
- Occhino, J., Mallett, C., & Rynne, S. (2013). Dynamic social networks in high performance football coaching. *Physical Education and Sport Pedagogy*, 18(1), 90-102.
- Poland, B. D. (1995). Transcription quality as an aspect of rigor in qualitative research. *Qualitative inquiry*, 1(3), 290-310.
- QSR International. (2012). NVivo 10 [Computer software]. Available from <http://www.qsrinternational.com>
- Rappaport, H., Enrich, K., & Wilson, A. (1985). Relation between ego identity and temporal perspective. *Journal of Personality and Social Psychology*, 48(6), 1609-1620. doi:10.1037/0022-3514.48.6.1609

- Rees, T., Smith, B., & Sparkes, A. C. (2003). The influence of social support on the lived experiences of spinal cord injured sportsmen. *Sport psychologist*, 17(2), 135-156.
- Ruch, G. (2005). Relationship-based practice and reflective practice: holistic approaches to contemporary child care social work. *Child & Family Social Work*, 10(2), 111-123.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 443-466). Thousand Oaks, CA: Sage.
- Tawse H., Bloom, G. A., Sabiston, C.M., & Reid, G. (2012). The role of coaches of wheelchair rugby in the development of athletes with a spinal cord injury. *Qualitative Research in Sport, Exercise and Health*, 4(2), 206-225.
- Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. MacDonald, & M. O'Sullivan (Eds.), *Handbook of physical education* (pp. 516-539). Thousand Oaks, CA: Sage.
- Trudel, P., & Gilbert, W. (2013). The role of deliberate practice in becoming an expert coach: Part 3 – Creating optimal settings. *Olympic Coach Magazine*, 24(2), 15-28.
- Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach learner's perspective: Consideration for coach development administrators. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 375-387). London: Routledge.

- Trudel, P., Gilbert, W., & Werthner, P. (2010). Coach education effectiveness. In J. Lyle, & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 124-138). London: Churchill Livingstone.
- US Sailing (2010). *Home*. Retrieved from: <http://adaptive.ussailing.org/> [Accessed: 25 Jun 2013].
- Webster, L., & Mertova, P. (2007). *Using narrative inquiry as a research method: An introduction to using critical event narrative analysis in research on learning and teaching*. London: Routledge.
- Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, 20, 198-212.
- Werthner, P., & Trudel, P. (2009). Investigating the idiosyncratic learning paths of elite Canadian coaches. *International Journal of Sports Science & Coaching*, 4(3), 433-449.
- Wildman, T. M., & Niles, J. A. (1987). Reflective teachers: Tensions between abstractions and realities. *Journal of Teacher Education*, 38, 25-31. doi: 10.1177/002248718703800405
- Young, J. A. (2010). The state of play: Coaching persons with disabilities. *ITF Coaching and Sport Science Review*, 50, 9-10.

Chapter 5: Other Findings and Discussion

Whereas the article examined Jenny's becoming using a lifelong learning approach, this chapter focuses on her reflective process using Gilbert and Trudel's (2001) reflective conversation model to deductively analyze the data. Based on the work of Schön (1983), Gilbert and Trudel (2001, 2005, 2006) studied exemplary youth coaches and proposed that a coaching issue (analogous to Jarvis' disjuncture), filtered by the coach's role frame (analogous to Jarvis' biography), triggers a reflective conversation in which the coach embarks on a process of issue setting, strategy generation, experimentation, and evaluation of the solution. Moreover, the reflective conversation is influenced by four conditions (access to peers, environment, stage of learning, and issue characteristics). The chapter is divided in three sections. First, the four conditions that influenced Jenny's reflection are presented. Second, the coaching issues and role frame are presented. Third, the components of the model encompassing issue setting, strategy generation, experimentation, and evaluation are presented.

Findings and Discussion Related to the Reflective Conversation Model

The four conditions affect all the components of the reflective conversation, and this influence varies according to each component and its options. A brief overview of the findings regarding each condition is presented in Table 1. To avoid repetition, only an introduction to each condition is presented. As the findings regarding the components of the model are exposed, the influence of the conditions will be highlighted.

Conditions That Influence Reflection

The four conditions are environment, access to peers, stage of learning, and issue characteristics. Jenny mentioned a number of learning experiences she had, both in sports and education, that influenced her becoming a coach. Those learning experiences occurred within specific contexts of her life-world (environment). Moreover, the learning experiences were noted to have occurred through interactions with different people whom she accessed (access to peers). As Jenny experienced challenging situations (issue characteristics), her biography (stage of learning) changed, and she was able to manage more challenging issues. The environment, access to peers, and stage of learning are further described in the article (Chapter 4) from a lifelong learning perspective and are summarized by Table 1.

Evidence suggested that the environment was a major aspect of Jenny's access to knowledgeable peers. Moreover, as presented in the article (Chapter 4), the environments (TF2, TF3, TF4) were collaborative, supportive of her development, and provided numerous challenging opportunities with which she had to learn how to cope. Three environmental variables (the level and age of the program participants, the community's profile, and the support of the sport association) were also found by Gilbert and Trudel (2001, 2004).

Table 1

Summary of the Four Conditions That Influenced Reflection Within the Timeframes

Time frame	Experiences		Environment	Access to Peers	Stage of Learning	Issues Characteristics
	Sport	Education				
TF1	Athlete (variety of sports)	Student	Highly educated and active family	Family involved in disabilities		
TF2	Swimming Instructor & Athlete (mostly sailing)	High school & University Student	On-site training for both Para and able-bodied swimming	Mentors and peers from the club	Novice Competent Swim instructor	Execution of activities planned by others
TF3	Head coach & Manager of Adapt. Sailing	Substitute & High School Teacher	Collaborative culture of sailing Full of novel experiences and different roles	Mentors, peers, and athletes from other clubs	Novice Competent Proficient Head-coach	Planning activities for the club
TF4	Coach Developer of Adapt. Sailing	Graduate Student	Demands to reflect on how to build the sport nation-wide	Mentors became friends	Novice coach developer	Planning the sport nation-wide

Note. The separation of the timeframes was not as strict as it appears in the table. For instance, because the activities related to the coach developer role appeared towards the end of TF3, an approximation to the next timeframe (TF4) was made because the activity mostly occurred during this timeframe.

Table 1 portrays that knowledgeable people were available to be accessed throughout every timeframe. The article (Chapter 4) presented the influence of former coaches of sailing (TF2), mentors from the swimming club (TF2) and from sailing (TF3), peers (TF2, TF3, TF4), athletes (TF3, TF4), and parents of the children (TF2), all of whom

were accessed on an ongoing basis. Furthermore, the evidence in Table 1 illustrated the changes in Jenny's biography (stage of learning) as she moved from a student (TF1 and TF2) to a graduate student (TF4). Evidence suggested that although Jenny was a proficient instructor in the adaptive swimming program (TF2), changing to sailing required learning context-specific knowledge relevant to adaptive sailing (TF3). An aspect worth noting in Jenny's story was that every time she worked at a new adaptive sailing club, she also needed to deliberately engage in learning the subculture of the club. The breadth of challenges (e.g., different philosophies, disabilities, and goals) and uncertainty are at the heart of the reflective conversation (Gilbert & Trudel, 2001; Schön, 1983).

The findings revealed that Jenny's routine work became more complex as she shifted from being an instructor to becoming a head coach and manager. However, regardless of the complexity of the situation, she described herself as someone who constructs the solutions with others. "I talk to colleagues all the time, we problem-solve collaboratively often. I also talk about issues with my sailors, especially if it is something about figuring out how to set up their seating or positioning, or figuring out travel plans to accommodate their disability as best possible." Although Gilbert and Trudel (2001, 2005) proposed that youth coaches utilized knowledgeable others when reflecting on complex issues, within this study, findings revealed the importance of others regardless of the intricacy of the issues.

Coaching Issues

The interviews revealed the plethora of Jenny's tasks in every timeframe in which she worked with sports. When she was a beginner-swimming instructor (TF2), the

examples referred to the reality of a teenager working for the first time in a well-structured program. According to Jenny, the instructors only executed the activities planned by the club. “One week might be climbing, one week might be jumping, or one week might be going under things or whatever, ball skills... so you do half hour that and half hour swimming lesson.” Therefore, the issues found in TF2 referred mainly to the *execution* of activities. “We would have challenges like a kid not physically able to do something, like they didn’t have the balance to walk.”

During TF3 when Jenny became both a coach and program manager, a broader range of activities were added to her routine. The next quote exemplifies activities such as administrative work and *tactical* activities such as developing the adaptive program.

I did administrative work, planned programs, created schedules, helped with fundraisers, planned regattas, took people out for recreational sails, taught ‘Learn to Sail’, ran the race program, did outreach events, traveled on weekends to regattas, trained staff and volunteers and helped them when they needed it, designed posters, translated documents, went to board meetings, you name it...

Strategic activities, or activities that have a larger range of impact than tactical activities, appeared at first at the end of TF3 and the beginning of TF4, when Jenny was invited by Sail Canada to develop the adaptive sailing module. At that time, the issues related to her role as a coach developer: “I want to find ways to improve the learning system for disability sport coaches.” During a recent informal exchange, Jenny mentioned that she recently began working at the national organization responsible for coach education in order to keep supporting coaches’ development on a macro level.

Gilbert, Gilbert, and Trudel (2001) examined the coaching issues related to youth team sports and proposed five categories (athlete behavior, athlete performance, personal characteristics, parental influence, and team organization) that represent the challenges specific to that context. The present study did not aim to search out every issue Jenny faced, but rather how she learned from the issues she selected as meaningful to her context. What emerged from our data was the influence of the environment in which she worked on Jenny's role frame. The environment filtered the types of issues she tackled, thereby supporting Gilbert and Trudel's (2001, 2005) affirmations on how the environmental conditions influence reflection. Moreover, our evidence suggested that the coach reflected on three different levels (micro, meso, and macro). Micro level subjects referred to the execution of a routine action (e.g., adjusting a drill). The meso level was related to tactical subjects within the club or community (e.g., creation of club policies). Macro level regarded the strategic reach an action could have (e.g., planning the sport development nation-wide). This contributes to the reflective conversation model and might inform future research.

Role Frame

The analysis of the interviews revealed six boundary components and three internal components of Jenny's role frame. The sharing culture, the participants' age, type of disabilities, job description, advocate role, and dynamic environment of competitions were identified as boundary components that framed her approach to coaching.

Sharing culture. As noted in the article and presented in Table 1, Jenny participated in various contexts (e.g., swimming club during TF2, the school during TF3) that valued collaboration. When referring to adaptive sailing overall, she said:

There is a really strong sense of community; people are really open about sharing ideas. I like to talk to one of the National Team coaches whenever I can, such as when we're at the same event. In the development scene, quite often, new coaches from other clubs will contact me (or their administrator will put us in touch) in case they have questions. I like to help out any way I can because I did not have as many people to consult with about coaching issues back in the beginning.

When asked if the culture was always welcoming to knowledge sharing, Jenny added to her previous quote:

The atmosphere tends to be more open. Not necessarily always completely open at the elite level, if you are at a major important event, and it depends coach to coach or country to country, but people are often quite helpful. For example, the American Paralympic coach is often a guest coach at special events, like a regatta for development level sailors, and she is happy to share a lot of her knowledge.

Age of participants. The age of people she worked with was a boundary component of Jenny's role frame. For example, the participants' age framed the way she worked with children at the swimming club (TF2) and at the school (TF3), which was different from how she interacted with adult sailors (TF3 and TF4). She mentioned that such a mature and well informed audience was more engaged in constructing knowledge and being active in the coaching process. "It's mostly adults in the sport, since a lot of

people acquire a disability later in life, and I loved teaching people who were so interested and capable of understanding these really complex ideas.” When Jenny worked at the school with children or adolescents, her teaching style was framed by environmental conditions such as the curricula prescribed for that age group or by parental expectations (TF3).

I like to think that I strive to be more democratic, but sometimes it’s difficult depending on the context and sometimes it’s difficult especially in the education system because at the end of the day you have some things you have to go through and sometimes you feel constrained by time and by the content that needs to happen; and also you have these external benchmarks that you’re supposed to hit, like standardized tests. You have parents who may or may not be supportive of certain styles of teaching.

Type of disability. Jenny worked in clubs from different provinces that catered to different types of disabilities. For instance, while “in [city X] 90% of the athletes have physical disabilities, in [city Z] 60% of the participants have developmental disabilities, which influenced several aspects, from the goals of the program to the philosophy of the coaches.” Jenny reflected that people with developmental disabilities would often participate in sailing as a leisure activity, whereas people with physical disabilities were more likely to join the competition stream of the program. Therefore, the predominance of a particular type of disability influenced the type of coach the programs required. The need would vary from high caliber coaches capable of providing technical guidance to staff who provide a safe boat ride.

Job description. The position Jenny held dictated, to a large degree, what she did. Specifically, she assumed different positions, the expectations or job descriptions of which prescribed her activities. During TF2, the job description required the execution of micro level activities (e.g., teach participants how to climb stairs) planned by somebody else at the swimming club. At TF3, the scope of the activities increased. Jenny was responsible for both planning the sailing season (e.g., what the other coaches would execute) and executing some of the activities (e.g., coaching the racing team). Finally, at TF4, on top of executing (micro) and planning (meso), she created strategies that were more at a macro level. For example, her work entailed writing the sailing coach module for athletes with a disability. She reflected on the writing process:

I created the Sail Canada module for athletes with disabilities from zero. There was nothing when I began. Everything was in my head and based on manuals and policies I wrote during these many years as manager at disability sport associations.

Advocate role. The job of a disability sport manager also played a public relations role and varied according to the environment. At the beginning of TF3, Jenny advocated for disability sport at the club level, promoting the program and its benefits. At TF4, she worked at clubs where accessibility was well implemented; therefore, the need to promote disability sports was not foremost.

I went to [city Z] and within the club people were like: “This [program] is the best thing that we have ever seen in our lives,” the support was huge. I didn’t have to convince anybody at the bar after work that the program was a good thing.

However, during TF4 Jenny advocated for investments on coach development.

In the context of developmental adaptive sailing, it is very common to see a sailor travelling to a competition without a coach because the clubs cannot afford to send the coaches. This constrains their [coaches'] opportunities to learn and get involved with the sailing community.

Dynamic environment of competitions. Competitions were the site of much reflection, given the fluid nature of the coach's tasks. The need to adapt expediently was a major component of framing the coach's reflective process. Our findings revealed the constant cognitive process Jenny went through every time she met a new sailor during competitions.

You might also be working with athletes from other clubs, and you don't even know them. So you're trying to learn about them and who they are, what they want, and what their learning style is and what it is they need to know and how best to do that?

The internal components of Jenny's role frame were athlete/person-centred, learning with/from others, and creating bonds.

Athlete/person-centred. Jenny described her coaching philosophy as person-centred.

Maybe you've met them five minutes ago, maybe you've never coached an athlete with this specific disability. But it [the disability] has some kind of impact on the way they will be set up in the boat, the way that they do a certain maneuver. So you're "okay", trying to figure out how do I get this person and help her figure out

how she's going to do that manoeuvre. I'm trying to learn her personality, but there's also a race, there are boats everywhere.

Learning with/from others. The article portrayed how Jenny learned from a number of people during every timeframe. The findings revealed her engagement to promote this way of knowledge construction with the coaches from the different clubs she worked at but also with her athletes. A piece of advice Jenny gave to an athlete illustrates this role frame:

I think you should try to take a companion because you could be a lot better. Just go have someone in the boat with you for a few hours, another good sailor. Just go talk about sailing and you'll learn. That's a little bit where my stuff on solo sailing comes from.

Creating bonds. During TF3, at the adaptive sailing program, Jenny strove to implement the same culture of cooperation she experienced in the English department. In order to do so, she stated the effort it took to maintain an atmosphere of friendship in which open communication was valued. The importance of creating bonds within the coaching staff was emphasised in a manual produced to train the person who would assume Jenny's head coach position in TF4. Under the section called "schedule staff meetings" Jenny wrote a note: "I find time together so important to keep everyone on the same page, feeling like a team, understanding what are the unique challenges/successes of the other staff members and their projects." The bonds created seemed to result in a sense of camaraderie that prompted Jenny to maintain that sharing circle. "There was one coach at [city W] who was

a great mentor in my first couple of seasons. So I hope I can help some new coaches the way he helped me. He was a real source of help.”

The boundary components of a role frame are given by the environment and proposed to influence the reflective process (Gilbert & Trudel, 2001, 2004). Our evidence suggested six boundary components (the sharing culture, the age of participants, type of disabilities, job description, advocate role, and dynamic environment of competitions), which differs from that of Gilbert and Trudel (2004), who only discussed three boundary components of role frames (age group, competitive level, and gender).

A common characteristic of the contexts (e.g., swimming club, sailing club, high school) in which Jenny worked was the collaboration amongst peers portrayed as the sharing culture (boundary role frame). A collaborative environment is proposed to be conducive to knowledge creation and acknowledged to be a major influence for reflection (Ruch, 2005; Schön, 1983). Moreover, the types of disability framed Jenny’s interactions as she tailored her approach towards coaching (athletes with physical disability) or towards sailing as a companion for leisure purposes (people with developmental disabilities). The age of the participants is a boundary component that has been pointed out by many researchers as an important aspect that differentiates coaching contexts (e.g., Balyi et al., 2005; Côté & Gilbert, 2009; Gilbert & Trudel, 2001, 2004). The findings suggested that Jenny would elaborate strategies differently according to the age of the participants. The older ones assumed the role of peers especially given their expertise on their (dis)abilities, which was pointed out as important for the joint construction of strategies (Cregan et al., 2007; Young, 2007). The advocate role was also a boundary component that framed

Jenny's approach to accessibility, adopting either more or less intensity according to the environment. Fitzgerald (2013) suggested advocating for accessibility as an issue upon which coaches should reflect. Finally, to our knowledge, the dynamic environment of competitions has not been exposed within the coaching literature. The unique environmental characteristics of adaptive sailing that requires athletes with a higher level of disability to be accompanied by people with whom they have never trained, demands that the coach engage in a constant cognitive process to select the best options to elaborate, experiment, and evaluate strategies to meet a sailor's need. Although the literature (Cregan et al., 2007; Tawse et al., 2012) discussed the breadth of disabilities with which coaches dealt, within para swimming and wheelchair rugby, these coaches only coach their own athletes.

The internal role frame components are views/attitudes of coaching disability sports, which are "framed" by the boundary components (Gilbert & Trudel, 2001, 2004). While our evidence suggested three internal components of Jenny's role frame (athlete/person centred, learning with/from others, and creating bonds), Gilbert and Trudel (2004) discussed nine internal role frames (e.g., discipline, fun, personal growth and development, sport specific development, and winning). The *athlete centred* component supports the findings of Cregan and colleagues (2007) on the need to individualize and tailor the practices, routines, and drills to each athlete. Evidence about the role frame component *learning with/from others* is strongly related to the condition access to peers, which was proposed by Gilbert and Trudel (2001, 2004) to influence reflection, and, therefore, learning (Schön, 1983). The internal role frame component *creating bonds* can be

interpreted as a strategy to build a network of supporters who would help in coping with the numerous challenges of the disability sport coaching context. In contrast to certain studies in the coaching literature that regarded the competitive nature of sport as a constraint to knowledge sharing among coaches (Lemyre et al., 2007; Nash & Sproule, 2009), Jenny consulted other coaches to solve sailing issues, even during competitions, due to the bonds she had established.

Issue Setting

Amongst the three options for issue setting, the findings revealed *self* as the most utilised, followed by *joint*, and then *other*. Regarding the *self* option, Jenny pointed out her experience in both teaching and coaching in numerous contexts as support for her in identifying issues. “I had worked for more than 12 years in that context now, all of that experience allowed me to identify problems that are happening in other clubs very clearly.” The *joint* option was the second most used. When questioned on how they (Jenny and the other coach) perceived the lack of communication between clubs in TF4, she was emphatic: “When we got there it was totally obvious that the Paralympic athletes....were all at one club and the people sailing at the development program were all at the other club and there was no connection.” Within the *other* option, the board members of the club often provided unsolicited comments. “I participated in board meetings throughout the winter. The members would debrief the whole season and provide feedback for the next year.”

These findings are aligned with those proposed by Gilbert and Trudel (2001), where the youth coaches identified issues using their experience, followed by the use of assistant coaches (peers), and finally others. Similarly to Saury and Durand (1998) who also studied

coaches of adult sailors, our evidence indicates that inputs from the athletes are sources of reflection.

Strategy Generation

The article showed evidence that Jenny worked in environments that valued knowledge transfer and provided training opportunities to the staff members, which increased the access to knowledgeable people in every timeframe. The availability of peers would be utilized to elaborate strategies requiring the input of others, such as advice seeking, joint construction, and reflective transformation. By participating in mediated (e.g., bachelor degree) and unmediated (e.g., workshops at the club) learning opportunities, Jenny expanded her stage of learning while increasing her experience, which influenced her use of strategies such as coaching repertoire and creative thought. Moreover, the production of coaching material (e.g., athletes' files) by some clubs allowed the use of coaching material options.

Coaching repertoire. Jenny commented on using her experience as a coach and an athlete and indicated that those experiences helped solve issues. "I definitely often think about previous experiences coaching and what worked, what didn't, why, how the athletes responded, feedback they gave me and so on." In relation to her athletic experiences she noted:

When I face coaching problems, motivating athletes or teaching new skills, I do think of my own experience often. Many of the sailors I work with do not have a lot of athletic experience to draw on and sometimes I think they feel a bit overwhelmed when they start to realize how much there is to know.

Our evidence supports the findings of coaching researchers (e.g., Bloom, 2013; Nash & Sproule, 2009; Saury & Durand, 1998) who stated the importance for coaches of past athletic experiences. Moreover, Gilbert and Trudel (2001) also found coaching repertoire to be a major source of strategy elaboration.

Coaching material. Two types of coaching materials were mentioned that informed Jenny's development: material from the public domain (e.g., books and the Internet) and material that Jenny or other club staff (e.g., an occupational therapist) produced (e.g., athletes' files, videos of competitions). First, books and the Internet were mentioned as strategies to build her general sailing knowledge. Jenny mentioned having an extensive library on both sailing (e.g., tactics, weather) and sports in general, which she acquired during her bachelor's degree in physical education. However, she pointed out the scarcity of books specific to the adaptive sailing context. Regarding the "Para side" of sailing, the coach often used the Internet: "I do check the Internet when I need quick information. Mostly it would be something about a disability that I am not as familiar with, if the occupational therapist I usually consult is not available." During an informal conversation, Jenny also explained that she looked for material on adaptive sailing on websites from other countries. Second, files, videos, and photos were noted as important sources of information used to both prevent issues from arising (e.g., athletes' files) and to help Jenny provide feedback to athletes during training and competitions (i.e., videos and photos). On the use of files produced by the club, Jenny commented:

The occupational therapist or one of her colleagues does an assessment of what the athlete's needs are. How they go transfer to the boat, how their positions are going

to be, if they are going to need particular equipment. She writes up a profile that we keep on file. So if you're a new coach, you know there's probably a hundred registered members at the club, you can just go pull that person's file out and read about it. So before you meet the athletes for the first time, you have an idea about them. You know if the person is deaf, are they going to use the power chair? Do they need the electronic assistive devices put on? So you can go and put them on before they get there.

These findings are congruent with a number of studies in the able-bodied coaching literature. Gilbert and Trudel (2001) found personal libraries as a way in which coaches improve their development. Our evidence supports the recent findings of Occhino and colleagues (2013), who stated the use of virtual forums and blogs on the Internet as coaching information sources. Although Carson (2008) studied the use of videos to facilitate reflective practice among coaches, the author focused on coaches' behaviours, unlike the use Jenny made of the videos to provide feedback to her athletes. To our knowledge, there is no prior study that exposed the creation of coaching material such as the athletes' files in order to support coaching knowledge. Therefore, this is a contribution of the present study to the reflective conversation model.

Creative thought. Specific quotes referring to the use of creative thought emerged at the beginning of TF3 when Jenny acknowledged her hectic routine. "It was crazy, I loved it, but I always had a 'things to do list' that was like 5 pages long." Jenny stated the need to "figure it out" on her own in terms of how to complete those tasks. "I really flew by the

seat of my pants. I had not done a lot of those tasks before, so it was constant trial and error...”

Our evidence supports studies on coach learning. According to Gilbert and Trudel (2001), creative thought refers to a personal cognitive process that is closely related to the definition of an internal learning situation (Moon, 2001; Werthner & Trudel, 2006). While Gilbert and Trudel suggested the creative thought option as the use of strategies adapted solely by the coach to a new situation, Werthner and Trudel proposed internal learning situations as the creation of new knowledge due to a reconsideration or reorganization of the cognitive structure. Such a strategy is linked to the depth of learning as it requires the learner to connect knowledge from various (Moon, 2001; Werthner & Trudel, 2006).

Advice seeking. The findings suggested advice seeking as the third most important method of strategy generation. However, the use of this strategy changed over time in relation to Jenny’s stage of learning. During TF2, she asked several questions to other instructors and her mentors, “You were always surrounded by people who knew the children and if they didn’t know that child they maybe worked with a child who had had a similar issue and offered some ideas.” In TF3, Jenny constantly sought advice from Kyle (occupational therapist) due to his knowledge of both sailing and disabilities. During TF4, Jenny sent emails to the former coach at the city Y with 27 questions ranging from managerial questions to the quantity of cell phone minutes the club had used. The commonality amongst these timeframes seemed to be that Jenny asked for advice in every instance when she arrived in a new context. As her stage of learning advanced and she expanded her local network, Jenny moved towards joint constructions.

Trudel and Gilbert (2013) recently proposed that coaches progress through a continuum from beginner to expert in which interdependency is key in order for a coach to advance towards the expert side. Beginner coaches are suggested to be dependent, whereas competent coaches are described as becoming more independent. The need to shift from an independent mindset to an interdependent mindset is what characterizes proficient and expert coaches from the first two (Trudel & Gilbert, 2013). Therefore, the findings suggesting that Jenny (during TF3 and TF4) accessed key people in a number of different knowledge and geographical areas might provide empirical support for interdependence.

Joint construction. Evidence from six sources of data suggested joint construction as a highly used strategy in every one of Jenny's timeframes. The number of people presented in the article illustrates well the utilization of this option. For instance, during the competition at the end of data gathering, Jenny mentioned how she and the athletes approached a weather issue: She talked to the athletes, "There's not much wind today, but do you want to talk with me aside? Do you feel that it would be more beneficial to go there and do some more training? Or would you rather just do a white board session and we would go over some rules and tactics?"

Our findings were similar to Gilbert and Trudel (2001), who found that youth sport coaches co-created strategies with coaching staff. Moreover, other researchers in disability sport coaching have noted the involvement of the athletes in decision making (Cregan et al., 2007; Young, 2010). Saury and Durand (1998) studied expert sailing coaches and found that training was controlled jointly by coaches and athletes. Saury and Durand proposed that sailing coaches' use of joint control of training was based on a tacit negotiation of

training tasks to keep athletes motivated, share responsibilities with their athletes, and develop a comprehensive attitude toward the athletes.

Reflective transformation. Examples of the use of reflective transformation were found in six interviews. Jenny provided an example of a strategy learned from a Paralympic coach at a major international competition.

I think it was Brad who had an idea about one of my athletes....because the way her spinal cord injury is, she loses a lot of strength if she has to reach up too high. So the kind of motion reaching low and pulling is a lot easier for her than if it has to engage around her pectorals or anything. So Brad said: "Let's take these two ropes that are really important ropes that require a lot of strength and a lot of quickness, let's move them lower where they come out on the boat." Things like that were really good to hear about.

The findings suggested that Jenny considered reflective transformation as an important strategy to solve issues. Gilbert and Trudel (2001) also found coaches recognized the importance of this strategy; however, the youth sport coaches did not engage often in initiatives regarding this option. On the contrary, Jenny noted that the desire to see and learn how others are solving their issues influenced her decision to work in different provinces (TF4). Likewise, Jenny noted that competitions are a fruitful place to learn how other coaches and athletes were setting up their boats.

Our evidence suggested a change in how Jenny evolved through the stages of learning, which influenced the way she chose strategies of the reflective conversation (Gilbert & Trudel, 2001, 2005). Thus, at TF2 and the beginning of TF3, Jenny would rely

on advice seeking and transformative learning, but towards the end of TF3 and TF4 she more often utilized joint construction and coaching repertoire. These findings vary slightly from the ones of Gilbert and Trudel (2001), where the use of coaching repertoire was more predominant than joint construction once the coaches gained more experience. A possible explanation for this difference might be due to the coaching context. While Gilbert and Trudel (2001) studied youth team sports, this research examined an individual adult sport for persons with a disability, who were showed to collaborate with the coach.

Experimentation and Evaluation

Evidence of these two components of the reflective conversation was less frequent than for strategy generation. The coach recalled a “trial and error” approach in which she would first experiment virtually, possibly using peers, then apply the solution in the real world. An evaluation of the outcome followed the experimentation. Examples from micro, meso, and macro level activities are presented next. During TF2, Jenny mentioned micro level issues related to child motor control. After generating strategies with the caregivers, she would experiment with the suggestions, “They didn’t have the coordination to go up a ladder without having someone to move their feet to each rung.”

Similar to Gilbert and Trudel (2001), this study found that Jenny would experiment with a strategy and evaluate its effectiveness. The quote above described the evaluation process of a micro level activity using reflection-in action, or evaluating the activity in the midst of the action (Schön, 1983) by receiving feedback of the child’s foot and then evaluating the effectiveness of climbing the ladder.

For meso level issues, Jenny commented on matching pairs of sailors and companions, a common practice in the development context of adaptive sailing competitions. Such an activity is considered meso level because the definition of pairs can affect the outcome of a competition.

We're thinking about it and it's always in the back of your mind all the time. And you see how it goes on the first day. You're like: "Did that work? Did it not? Oh my gosh, I thought that companion was more skilled than she is, I thought she was ready to sail with this person."

When asked how she evaluated the matching, Jenny answered:

Well, if it really doesn't go well, it's very obvious (laughs), like an alarm (laughs). For example, this year I had a companion that came up to me and said: "I'm really sorry....It's me. I thought I had enough training. I thought I had enough practice, but I don't feel comfortable..."

The example above illustrated how the reflective conversation sub-loop composed of strategy elaboration, experimentation, and evaluation occurred a number of times before the final evaluation. Jenny's statement, "We're thinking about it and it's always in the back of your mind all the time..." exemplifies the process of reflection-on action (Schön, 1983) in which she and the other coach responsible for matching the pairs were engaging. Specifically, they assessed the level of the pairs (strategy generation) and cognitively thought of the effectiveness (virtual-world experiment) and fairness (evaluation) of the match. The quote "...you see how it goes on the first day..." illustrates the real-world experimentation. After, Jenny described her cognitive process of evaluation using the *self*

option as presented by the quote, "...I thought that companion was more skilled than she is..." The following excerpt "...this year I had a companion that came up to me..." portrayed the evaluation using the *other* option which led Jenny to elaborate a different strategy to accommodate the athlete with another companion, executing a second sub-loop of the reflective conversation. The case above illustrates both reflection-in action and reflection-on action (Schön, 1983) with Jenny reflecting during the competition to evaluate their matching, but also over a longer period of time, utilizing a number of strategies to solve the same issue (Gilbert & Trudel, 2001).

At the macro level, Jenny commented on the implementation of the new module, which was aligned with the NCCP guidelines produced for Sail Canada. "How I evaluated it? Well, we conducted pilots in some provinces and handed out surveys to the coaches in order to listen to their feedback on the module." Evidence suggested that the broader the level of the issue, the more complex and lengthy it is to evaluate the outcomes of the different approaches used to solve the issue.

It's hard to create a nation-wide policy for adaptive sailing because the sport is not like able-bodied youth sailing in which every club in the country has the same progression of steps well-established. In adaptive sailing, the clubs conduct separate programs, focused on different clientele. Finding the common thread is really a challenge, especially when clubs don't even keep records of how many hours of adaptive sailing, in which boat types, for what types of disabilities...

Jenny's participation in pilots suggested an opportunity for reflection-in action (Schön, 1983) in order to adjust the modules as the training progresses. The utilization of

surveys allowed Jenny to reflect-on action (Schön, 1983), providing more detailed feedback on specific areas that could be implemented in the next province where the pilot was going to be presented. The surveys also served as source of data that might nurture retrospective reflection-on action (Gilbert & Trudel, 2001) due to the impossibility of changing what has already happened in a certain training session.

Chapter 6: General Discussion

This chapter is divided into three sections: considerations of the research design, environments outside Jenny's coaching career, and, finally, reflections regarding the overall findings.

Research Design Considerations

Two differences in design regarding the construction of the model should be acknowledged between the studies conducted by Gilbert and Trudel (2001, 2004, 2005, 2006) and this study. First, Gilbert and Trudel's research was designed to examine reflection-on action. For this reason, the authors followed coaches during their sport season and asked them before and after games or practices what issues they faced and how they planned to solve those issues. Given the focus in this study on in-depth interviews guided by the RTL to explore Jenny's becoming a coach, retrospective reflection-on action was mainly studied. The only interviews that captured reflection-on action were the three focused interviews conducted within a competition period. Second, Gilbert and Trudel discussed the issue characteristics based on the coaches' self-identified stage of learning for their current season, whereas the present study looked at the evolution of the stages. The lifelong perspective used for the analysis of the present study found that issues once considered complex became simpler as Jenny's stage of learning advanced. This dynamic process made the interviewing more difficult as the probing of issues was designed to elicit tacit knowledge, which is not easily accessed (Gilbert & Trudel, 2004). The comparison of the two studies' findings should be viewed with these design differences in mind.

Outside Coaching

The findings revealed that Jenny was exposed to environments outside coaching that optimized her learning process in several ways. A teacher's experiences are so relevant to sport coaching that a variety of studies have linked educators to sport coaches (e.g., Côté & Gilbert, 2009; Drewe, 2000). Moreover, Jones (2006) edited a book with 11 chapters on the sport coach as an educator. The evidence of this study suggested a number of contexts that provided Jenny the opportunity to acquire what Côté and Gilbert (2009) categorized as professional knowledge. She attained sport-specific knowledge from both her experiences as an athlete in TF2 and TF3 (e.g., Callary et al., 2011; Gilbert, Côté, & Mallet, 2006) and during her college and university degrees in physical education and English in TF2 (e.g., Nash & Sproule, 2009; Werthner & Trudel, 2006). Moreover, during her university degree, she acquired pedagogical knowledge, which is suggested to be an important part of professional knowledge (Côté & Gilbert, 2009; Gilbert & Côté, 2013). Within her teaching career (TF3), Jenny enhanced her skills to adapt to teaching a variety of subjects in a number of contexts. Although Jarvis (2009) cautioned that 25 years of experience could result in only one year of learning if the experience followed the same ritualistic (non-reflective) process year after year, the data in the present study suggested that Jenny faced a plethora of situations and reflected regularly in an ongoing way, both personally and with others.

Some Further Reflections

On the access to peers condition, the evidence emphasized Jenny's well-established interpersonal skills, which are considered to be fundamental to the development of

knowledge (Côté & Gilbert, 2009). It is important to highlight that the availability of knowledgeable and trusted experts in the context does not guarantee learning will occur (Gilbert & Trudel, 2001). Actually, the focus on what is meaningful for the learner within a specific context stimulated coach development researchers to encourage coach educators to explore the potential of constructivist approaches to learning (e.g., Deek, Werthner, Paquette, & Culver, 2013; Paquette, Hussain, Trudel, & Camire, in press; Trudel et al., 2013). Collins, Abraham, and Collins (2012) pointed out that not all coaches will respond the same way to learning contexts. Therefore, Jenny's diligence in seeking unmediated learning situations (Trudel et al., 2013; Werthner & Trudel, 2006) to expand her knowledge through interactions with others (e.g., mentors, professors, colleagues, and athletes) must be emphasized. McMaster and colleagues (2012) suggested the small number of coaches in disability sport leaves few options for those coaches who wish to use other coaches as sounding boards. However, the findings of this study revealed that Jenny identified knowledgeable peers within different areas of expertise (e.g., other sail boat classes) and from different cities (Occhino et al., 2013). Bloom (2013) suggested that coaches from less visible sports (compared to hockey or soccer), which is the case of adaptive sailing, might find mentors in other sports.

On the issue characteristics condition, the findings suggested reflection as a means to attain a better understanding of 'something', which may not be the resolution of an issue (Jarvis, 2009; Moon, 2004). Therefore, what triggered a reflection could be related to Jenny's job description, for instance. That difference might inform future researchers using the reflective conversation model as a framework. Moreover, it should be noted that the

execution of a micro level activity does not suggest an easier task than meso or macro level activities. For example, at one of the adaptive sailing clubs (in TF3), there were more than 150 athletes in the adaptive sailing program, which made the micro activity of coaching the individual (athlete centred) very challenging. In order to individualize the session according to the person (not the disability), Jenny used different strategies such as looking at the athlete's file at the club (coaching materials produced by an occupational therapist) and listened the athlete to understand and learn from him or her.

Finally, regarding the stage of learning condition, the data revealed a connection between the level of issues and Jenny's lifelong learning. Jarvis (2009) proposed life transitions as opportunities for growth and development because "every time we move from one status to another, we have to learn what the new role or status demands from us" (p. 191). Likewise, Ericsson (2008) suggested that people introduced to a domain of activity they are not used to (e.g., new job or game) tended to perform below their potential; however, "after some limited training and experience...[the] individual's performance is adapted to the typical situational demands and is increasingly automated" (Ericsson, 2008, p. 991). Indeed, Trudel and Gilbert (2013) have recently proposed a figure that theoretically explains how sport coaches who move from one context to another (e.g., developmental to elite) will regress from one stage of expertise (e.g., expert to proficient), at least for the time it takes them to learn about the new context.

Chapter 7: Conclusions

Summary

This study sought to examine how an adaptive sailing coach learned from and through experience. Jarvis's (2006, 2009) comprehensive theory of human learning was used to interpret Jenny's life story using a lifelong perspective (Jarvis, 2006, 2009). A more focused look at how Jenny learned from issues used Gilbert and Trudel's (2001, 2005) reflective conversation model to analyze the data. Evidence revealed that as time progressed and the coach was exposed to a mixture of challenges (i.e., disjuncture; Jarvis, 2009) and learning situations (Trudel et al., 2013; Werthner & Trudel, 2006) her stage of learning advanced in each adaptive context (i.e., recreational swimming and recreational and developmental sailing). Evidence suggested that Jenny faced very challenging situations and accessed supportive people in well-structured environments, which facilitated her knowledge construction. Although numerous contexts provided access to knowledgeable and trusted peers, Jenny was the one responsible for choosing to engage in learning situations with those people.

Limitations

Capturing the "reflective experience is far from straightforward, and is, inevitably, going to be controversial and challenging" (Anderson et al., 2004, pp. 197-198); therefore, some methodological limitations have been exposed by the literature when the aim is to capture the reflective process (Anderson et al., 2004; Gilbert & Trudel, 2001). For instance, Werthner and Trudel (2006) noted that a detailed description of a coach's biography (cognitive structure) is almost impossible because it is the result of a dynamic cognitive

activity immersed in processes not always conscious and intentional. Although Jenny's biography as a coach and teacher suggested her deliberate engagement in reflection on a variety of aspects, such a method might vary considerably in terms of productivity depending on the participant. The retrospective nature of the methodology used in this study could be a limitation if the participant had not been as reflective and available to explore her own life-story as Jenny was.

Implications

Coaching literature. The present study added to literature in at least three ways. First, it expanded Gilbert and Trudel's (2001) reflective conversation model as it provided a case of how the conditions (access to peers, environment, stage of learning, and issue characteristics) overlapped in different contexts using a lifelong perspective. Second, it enhanced our views of the importance of stimulating the participation of disability sport coaches in competitions so they can learn from other coaches, athletes, and setups. Third, it expanded the understanding of the coaching material option (strategy generation), exposing the importance of producing coaching materials (e.g., athletes' files, videos) to support coaching reflection and knowledge creation. Finally, Côté and Gilbert (2009, p. 318) stated, "There likely are very few examples of expert coaches in participation sport because they seldom remain long enough to develop the extensive knowledge (expertise) required to establish a history of effectiveness." Based on Jenny's biography and the intensity of her involvement in a number of roles in adaptive sailing, from training "learn to sail", developing adaptive sailing coaching programs across the country, and also having an athlete who reached the pinnacle of sports participation competing at the Paralympic

Games, it is possible that Jenny is considered an expert coach at the development level of adaptive sailing. Thus, other researchers could build upon the present case study to advance our understanding of expert coaches at the developmental level.

Coaching researchers. A close look at this study's findings reveals interesting links between the reflective conversation model and the definition of coaching effectiveness and expertise, thereby informing future research. According to Côté and Gilbert (2009), coaching effectiveness is defined as “the consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes’ competence, confidence, connection, and character in specific coaching contexts” (p. 316). Professional knowledge (Côté & Gilbert, 2009) is linked to the stage of learning condition (Gilbert & Trudel, 2001, 2005). The access to peers condition (Gilbert & Trudel, 2001, 2005) relates to interpersonal knowledge (Côté & Gilbert, 2009). The intrapersonal knowledge relates to the reflective conversation cycle as a whole. Indeed, the main support given by Côté and Gilbert for intrapersonal knowledge was the reflective conversation model. The issue characteristics condition (Gilbert & Trudel, 2001) has some similarities with the athletes’ outcomes because coaches willing to increase their effectiveness and expertise should choose to reflect on subjects and elaborate strategies to develop athlete competence, connection, character, and confidence. The environment condition (Gilbert & Trudel, 2001, 2005) might align with the coaching context or third component of the definition of coaching effectiveness and expertise (Côté & Gilbert, 2009). Future research could make use of the reflective conversation model matched with innovative qualitative methods such

as the Rappaport Timeline to bring a holistic approach to the expansion of the coaching effectiveness and expertise definition.

Coaching developers. This study suggested that optimal learning environments can be shaped if administrators take into account how the four conditions are interrelated. First, it is necessary to understand the complexity of the current issues coaches are facing in order to promote different learning opportunities (Trudel et al., 2013) and develop the skills necessary to solve those issues. For instance, at the beginner level, coaches could be exposed to mediated learning opportunities such as a mentoring program in addition to workshops held by the club or association. The access to knowledgeable peers from the coaches' environment would expand their professional knowledge through exposure to meaningful material (i.e., relevant to their context). More importantly, with the help of well-facilitated workshops, the coaches would increase their interpersonal knowledge and also gain access to strategies related to others (e.g., advice seeking, joint construction).

As the coaches move to more competent and proficient levels, administrators could continue to promote the implementation of interactions (e.g., 'coaches communities of practice') with other coaches, athletes with a disability, occupational therapists, and caregivers. Those interactions could facilitate the progression from proficient to expert levels by providing coaches with people who would question their practices, expose them to broader perspectives, and, therefore, deepen their levels of reflection (Moon, 1999, 2004). Deek and colleagues (2013) recommended that coach educators pay careful attention to how they structure and develop learning contexts in order to increase their impact on

coach learning. However, they caution that even well-crafted learning contexts will not meet the needs of all coaches (Collins et al., 2012; Deek et al., 2013).

Recommendations

Based on the findings of this study, the broader coach development literature, and constructivist views of learning, it seems reasonable to draw some recommendations for sport administrators who want to cultivate the development of coaches. These recommendations are not limited to disability sport because they are based on global human learning theories (e.g., Jarvis, 2009; Moon, 1999, 2001).

- Sport administrators should understand the coaches' biographies and stage of learning concerning the challenges they will face in the specific sport context. Filling the gap between what coaches know and what challenges they need to face should be the focus of learning opportunities created by the administrators.
- A period of adjustment with the appropriate support is suggested even for proficient/expert coaches who shift to new environments while they "learn the ropes" and assimilate the club culture.
- Sport administrators should delegate peers to introduce new coaches to the subculture of the environment and facilitate the process of learning routine tasks and meeting key people in the program.
- The introduction of coaches to some of the meso level issues in their sport context could be achieved by allowing them to take part in board meetings. This would help coaches expand their knowledge and facilitate their relationships with more experienced coaches, members, and volunteers.

References

- Anderson, A., Knowles, Z., Gilbourne, D. (2004). Reflective practice for sports psychologists: Concepts, models, practical implications, and thoughts on dissemination. *The Sports Psychologist*, 18, 188–203.
- Armour, K. (2006). The way to a teacher's heart: Narrative research in physical education. In D. Kirk, D. Macdonald, & M. O'Sullivan (Eds.), *Handbook of physical education*. (pp. 467-486). London: SAGE Publications Ltd. doi: 10.4135/9781848608009.n26
- Athletics Canada (2012). *Para classification background* [Web pdf]. Retrieved from <https://www.athletics.ca/files/nationalteamprograms/eventgroups/speedpower/paraclassificationbackground.pdf> [Accessed: 12 Aug 2012].
- Balyi, I., Cardinal, C., Higgs, C., Norris, S., & Way, R. (2005). Long Term Athlete Development—Canadian Sport for Life. *Canadian Sport Centres*. Retrieved from: <http://www.canadiansportforlife.ca/>
- Banack, H.R., Sabiston, C.M., & Bloom, G.A. (2011). Coach autonomy support, basic need satisfaction, and intrinsic motivation of Paralympic athletes. *Research Quarterly for Exercise and Sport*, 82 (4), 722-730.
- BBC News (2012). *Paralympic ticket sellout goal*. [online] Retrieved from: <http://www.bbc.co.uk/news/uk-19240972> [Accessed: 25 Jun 2013].
- Bloom, G. (2013). Mentoring for sport coaches. In P. Potrac, W. Gilbert, J. Denison. Routledge handbook of sports coaching (pp. 476-485). London: Routledge.

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Brittain, I. (2004). Perceptions of disability and their impact upon involvement in sport for people with disabilities at all levels. *Journal of Sport & Social Issues*, 28(4), 429-452.
- Burkett, B. (2010). Technology in Paralympic sport: performance enhancement or essential for performance? *British journal of sports medicine*, 44(3), 215-220.
- Burkett, B. (2013). Coaching athletes with a disability. In P. Potrac, W. Gilbert, J. Denison. *Routledge handbook of sports coaching* (pp. 196-209). London: Routledge.
- Callary, B., Werthner, P., & Trudel, P. (2011). Shaping the way five women coaches develop: Their primary and secondary socialization. *Journal of Coaching Education*, 4(3), 76-125.
- Callary, B., Werthner, P., & Trudel, P. (2012). How meaningful episodic experiences influence the process of becoming an experienced coach. *Qualitative Research in Sport, Exercise and Health*, 1-19.
- Canadian Paralympic Committee (2013). *Summer Paralympic sports sailing*. Retrieved from: <http://www.paralympic.ca/en/Sports/Summer/Sailing.html> [Accessed: 25 Jun 2013].
- Carson, F. (2008). Utilizing video to facilitate reflective practice: Developing sports coaches. *International Journal of Sports Science and Coaching*, 3(3), 381-390.
- Carter, A. D., & Bloom, G. A. (2009). Coaching knowledge and success: going beyond athletic experiences. *Journal of Sport Behavior*, 32(4), 419-437.

- Collins, D., Abraham, A., & Collins, R. (2012). On Vampires and Wolves-exposing and exploring reasons for the differential impact of coach education. *International Journal of Sport Psychology*, 43(3), 255-271.
- Coombs, P.H., & Ahmed, M. (1974). *Attacking rural poverty: how non-formal education can help*. London: Hopkins University Press.
- Côté, J., & Gilbert, W. (2009) An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching* 4(3), 307-323.
- Cregan, K., Bloom, G. A., & Reid, G. (2007). Career evolution and knowledge of elite coaches of swimmers with a physical disability. *Research Quarterly for Exercise and Sport*, 78(4), 339-350.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Crotty, M. (1998). *The foundations of social research*. London: SAGE.
- Culver, D., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the potential for learning through interactions. In R. L. Jones (Ed.), *The sport coach as educator: Re-conceptualising sports coaching* (pp. 97-112). London: Routledge.
- Culver, D., & Trudel, P. (2008). Clarifying the concept of Communities of Practice in sport. *International Journal of Sports Science & Coaching*, 3(1), 1-10.
- Culver, D., Trudel, P., & Werthner, P. (2009). A sport leader's attempt to foster a coaches' community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365-383.

- Cushion, C. J. (2006). Mentoring. Harnessing the power of experience. *The Sports Coach as Educator: Re-conceptualising sports coaching*, 128-144.
- Cushion, C., & Lyle, J. (2010). Conceptual development in sports coaching. In J. Lyle, & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 1-13). London: Churchill Livingstone.
- Cushion, C. & Nelson, L. (2013). Coach education and learning: Developing the field. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 359-374). London: Routledge.
- Cushion, C., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R., & O'Callaghan, C. (2010). *Coach learning and development: A review of literature*. Leeds, UK: Sports Coach UK.
- DePauw, K. P., & Gavron, S. J. (2005). *Disability sport* (2nd ed.). Champaign IL: Human Kinetics.
- Deek, D., Werthner, P., Paquette, K., & Culver, D. (2013). Impact of a Large-scale Coach Education Program from a Lifelong-Learning Perspective. *Journal of Coaching Education*, 6(1), 23-42.
- Disabled Sailing Association of British Columbia (2013). *Equipment Martin16*. Retrieved from: http://www.disabledsailingbc.org/equipment_martin16.shtml
- Drewe, S. B. (2000). An examination of the relationship between coaching and teaching. *Quest*, 52(1), 79-88.
- Ericsson, K. A. (2008). Deliberate practice and acquisition of expert performance: a general overview. *Academic Emergency Medicine*, 15(11), 988-994.

Fitzgerald, H. (2013). *The Coaching chain: Reflections of disabled athletes and coaches*.

Retrieved from:

http://www.sportscoachuk.org/sites/default/files/Reflections%20of%20disabled%20atheltes_0.pdf

Ghaye, T., Lee, S., Shaw, D.J., & Chesterfield, G. (2009). When winning is not enough: learning through reflections on the 'best-self'. *Reflective Practice*, 10 (3), 385-401.

Gilbert, W., & Rangeon, S. (2011). Current Directions in Coaching Research. *Revista IberoAmericana de Psicología del Deporte (RIPED)*, 6 (2), 217-235.

Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16-34.

Gilbert, W., & Trudel, P. (2004). Role of the coach: how model youth team sport coaches frame their roles. *Sport Psychologist*, 18(1), 21-43.

Gilbert, W., & Trudel, P. (2005). Learning to coach through experience: Conditions that influence reflection. *The Physical Educator*, 62(1), 32-43.

Gilbert, W., & Trudel, P. (2006). The coach as a reflective practitioner. In R. L. Jones (Ed.), *The sports coach as educator: Re-conceptualising sports coaching* (pp. 113-127). London: Routledge.

Gilbert, W., & Trudel, P. (2013). The role of deliberate practice in becoming an expert coach: Part 3. Creating optimal settings. *Olympic Coach Magazine*, 24(2), 15-28.

Gilbert, W., Côté, J., & Mallett, C. (2006). Developmental paths and activities of successful sport coaches. *International Journal of Sports Science and Coaching*, 1(1), 69-76.

Gilbert, W. D., Gilbert, J. N., & Trudel, P. (2001). Coaching strategies for youth sports:

Part 1: Athlete behavior and athlete performance. *Journal of Physical Education, Recreation & Dance*, 72(4), 29-33.

International Federation for Disabled Sailing (2013). *Boats & adaptations*. Retrieved from:

<http://www.sailing.org/ifds.php>

International Paralympic Committee (2013). *Athletics results*. Retrieved from:

<http://www.paralympic.org/Athletics/Results/Results> [Accessed: 25 Jun 2013].

Jarvis, P. (2006). *Towards a comprehensive theory of human learning: Lifelong learning and the learning society* (Vol. 1). New York, NY: Routledge.

Jarvis, P. (2009). *Learning to be a person in society*. London: Routledge.

Jones, R. L. (2006). *The sports coach as educator: re-conceptualising sports coaching*. New York, NY: Routledge.

Jones, R. L., Armour, K. M., & Potrac, P. (2003). Constructing expert knowledge: A case study of a top-level professional soccer coach. *Sport, Education and Society*, 8(2), 213-229.

Jones, R. L., Harris, R., & Miles, A. (2009). Mentoring in sports coaching: A review of the literature. *Physical Education and Sport Pedagogy*, 14(3), 267-284.

Kavanagh, E. (2012). Affirmation through disability: one athlete's personal journey to the London Paralympic Games. *Perspectives in Public Health*, 132(2), 68-74.

Knowles, Z., Borrie, A., & Telfer, H. (2005). Towards the reflective sports coach: Issues of context, education and application. *Ergonomics*, 48(11), 1711-1720.

- Langley, D.J., & Knight, S.M. (1999). Continuity in sport participation as an adaptive strategy in the aging process: A lifespan narrative. *Journal of Aging & Physical Activity*, 7, 32-54.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge university press.
- Le Clair, J. M. (2011). Transformed identity: from disabled person to global Paralympian. *Sport in Society*, 14(9), 1116-1130.
- Lee, S., Chesterfield, D., Shaw, D.J., & Ghaye, T. (2009). Editorial: Exploring the potential for reflective learning in sport. *Reflective Practice*, 10 (3), 285-293.
- Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *Sport Psychologist*, 21, 191-209.
- Mail Online (2012). *Final ticket rush for London 2012: Games are just 200,000 tickets away from becoming first ever sold out Paralympics*. [online] Retrieved from: <http://www.dailymail.co.uk/news/article-2191254/Final-ticket-rush-London-2012-Games-just-200-000-tickets-away-sold-Paralympics.html> [Accessed: 25 Jun 2013].
- Mallett, C. J., Trudel, P., Lyle, J., & Rynne, S. B. (2009). Formal vs. informal coach education. *International Journal of Sports Science & Coaching*, 4(3), 325-334.
- Marshall, M. N., (1996) Sampling for qualitative research. *Fam. Pract.* 13, 522-526.
- Martin16.com (2012). *Home - Martin 16 sailboat for able and disabled sailors*. [online] Retrieved from: <http://www.martin16.com/> [Accessed: 1 Aug 2013].
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach*. London: Sage.

- McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability: a look at their learning experiences. *Qualitative Research in Sport, Exercise and Health*. 1-18. doi:10.1080/2159676X.2012.686060
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Moon, J. A. (1999). *Reflection in learning and professional development: Theory and practice*. Psychology Press.
- Moon, J. (2001). *Short courses and workshops: Improving the impact of learning, training and professional development*. London: Kogan Page.
- Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. London: Routledge Falmer
- Nash, C. S., & Sproule, J. (2009). Career development of expert coaches. *International Journal of Sports Science and Coaching*, 4(1), 121-138.
- Nash, C., & Sproule, J. (2012). Coaches perceptions of their coach education experiences. *International Journal of Sport Psychology*, 43(1), 33.
- Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, nonformal and informal coach learning: A holistic conceptualisation. *International Journal of Sport Science & Coaching*, 1(3), 247-259.
- Occhino, J., Mallett, C., & Rynne, S. (2013). Dynamic social networks in high performance football coaching. *Physical Education and Sport Pedagogy*, 18(1), 90-102.
- Paquette, K., Hussain, Trudel, P., & Camire, M. (in press). An attempt to restructure a coach education program using constructivist principles.

Poland, B. D. (1995). Transcription quality as an aspect of rigor in qualitative research.

Qualitative inquiry, 1 (3), 290-310.

QSR International. (2012). NVivo 10 [Computer software]. Available from

<http://www.qsrinternational.com>

Rappaport, H., Enrich, K., & Wilson, A. (1985). Relation between ego identity and

temporal perspective. *Journal of Personality and Social Psychology*, 48(6), 1609-1620. doi:10.1037/0022-3514.48.6.1609

Rangeon, S., Gilbert, W., & Bruner, M. (2012). Mapping the world of coaching science: a citation network analysis. *Journal of Coaching Education*, 5:1, 83-113.

Rees, T., Smith, B., & Sparkes, A. C. (2003). The influence of social support on the lived experiences of spinal cord injured sportsmen. *Sport psychologist*, 17(2), 135-156.

Rolls, L., & Relf, M. (2006). Bracketing interviews: Addressing methodological challenges in qualitative interviewing in bereavement and palliative care. *Mortality*, 11, 286-305.

Ruch, G. (2005). Relationship-based practice and reflective practice: holistic approaches to contemporary child care social work. *Child & Family Social Work*, 10(2), 111-123.

Saury, J., & Durand, M. (1998). Practical knowledge in expert coaches: On-site study of coaching in sailing. *Research quarterly for Exercise and Sport*, 69(3), 254-266.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

- Stake, R. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 443-466). Thousand Oaks, CA: SAGE.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE.
- Tawse H., Bloom, G. A., Sabiston, C.M., & Reid, G. (2012). The role of coaches of wheelchair rugby in the development of athletes with a spinal cord injury. *Qualitative Research in Sport, Exercise and Health*, 4(2), 206-225.
- Topping, A. (2012). *Locog hails biggest and best Paralympics in history*. [online]
Retrieved from: <http://www.guardian.co.uk/sport/2012/sep/06/paralympics-ticket-sales> [Accessed: 25 Jun 2013].
- Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. MacDonald, & M. O'Sullivan (Eds.), *Handbook of physical education* (pp. 516-539). Thousand Oaks, CA: Sage.
- Trudel, P., & Gilbert, W. (2013). The role of deliberate practice in becoming an expert coach: Part 3 – Creating optimal settings. *Olympic Coach Magazine*, 24(2), 15-28.
- Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach learner's perspective: Consideration for coach development administrators. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 375-387). London: Routledge.
- Trudel, P., Gilbert, W., & Werthner, P. (2010). Coach education effectiveness. In J. Lyle, & C. Cushion, (Eds.), *Sports coaching: Professionalisation and practice* (pp. 124-138). London: Churchill Livingstone.

- US Sailing (2010). *Home*. Retrieved from: <http://adaptive.ussailing.org/> [Accessed: 25 Jun 2013].
- Webster, L., & Mertova, P. (2007). *Using narrative inquiry as a research method: An introduction to using critical event narrative analysis in research on learning and teaching*. London: Routledge.
- Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, 20, 198-212.
- Werthner, P., & Trudel, P. (2009). Investigating the idiosyncratic learning paths of elite Canadian coaches. *International Journal of Sports Science & Coaching*, 4(3), 433-449.
- Wildman, T. M., & Niles, J. A. (1987). Reflective teachers: Tensions between abstractions and realities. *Journal of Teacher Education*, 38, 25-31. doi: 10.1177/002248718703800405
- Wright, T., Trudel, P., & Culver, D. (2007). Learning how to coach: The different learning situations reported by youth ice hockey coaches. *Physical Education and Sport Pedagogy*, 12(2), 127-144.
- Young, J. A. (2007). Coaching players with a disability. *ITF Coaching and Sport Science Review*, 41, 14-15.
- Young, J. A. (2010). The state of play: Coaching persons with disabilities. *ITF Coaching and Sport Science Review*, 50, 9-10.
- Yin, R. K. (1994). Introduction. In *Case study research* (2nd ed., pp. 1-17). Thousand Oaks, CA: SAGE.

Yin, R. K. (2009). *Case study research: Design and methods*. Thousand Oaks: Sage.

Appendix A

Rappaport Time Line

Birth



Present

Appendix B

In-Depth Interview Guide

Pre-Interview Routine

Introduction

Consent Form

Demographic Questionnaire

Biography

1) Based on the time line you filled out, tell me, how was your up-bringing?

- a) Milestones
- b) Family
- c) School
- d) University education

2) From where does your interest in sport come?

- a) Family
- b) Peers
- c) Past experiences as an athlete, including other sports played
- d) Describe your athletic accomplishments

3) How did you get involved in disability sport?

Coaching

4) How did you get involved in coaching?

- a) In other sports
- b) In disability sports

- 5) Can you describe your belief of what it is to be a coach?
 - a) Coaching philosophy
 - b) Values
 - c) Goals
 - d) Focus
- 6) Are there any differences between disability and able-bodied sport in terms of coaching?

Coaching Conditions

- 7) Describe the culture of your sport.
 - a) Environment (coaching team)
 - b) E.g., sledge hockey – influenced by car accidents and cancer.
 - c) Parents' influence
 - d) Doctors' influence
 - e) Volunteer/caregivers
- 8) Can you describe the structure of your sport club?
 - a) Assistant coaches
 - b) Peers
 - c) Communities of Practice (CoP) or other social learning networks
- 9) Are there any individuals with whom you consistently interact in relation to your coaching?
 - a) Access to peers
 - b) Mentors

- c) Other coaches

10) How have you learned to coach?

- a) Stage of learning (novice vs. expert)
- b) NCCP
- c) Workshops
- d) Books
- e) Videos
- f) Peers
- g) Mentor

11) Has the way you coach (your philosophy) changed over time? Please describe.

- a) Issue characteristics
- b) Tactics
- c) Game strategy
- d) Communication
- e) Disability-related
- f) Logistics
- g) Pedagogical

Athletes

12) Can you describe and give an overview of the athletes you coach?

- a) How many
- b) Classifications
- c) Gender

- d) Modalities (sports)
- e) Types of adaptations
- f) Explain the range of disabilities of the athletes
- g) Explain the range of abilities of the athletes

13) How do you learn about their disabilities? Do you speak with the athletes, their caregivers, doctors, etc.?

Issue Setting

14) Do you face challenges in your coaching?

- a) Can you provide examples?
- b) How did you try to resolve those challenges?

15) Do you reflect on your coaching?

16) On what topics do you reflect?

- a) Do you see any difference between the beginning of your career and now regarding how you face challenges? How so?

17) How is your process of reflection?

18) Are there any other comments you wish to add?

19) Do you have any final questions or comments?

Appendix C

Focused Interview Guide

Pre-Interview Routine

Ask permission to record the interview.

Coaching Issues

- 1) Have you reflected on something this week?
- 2) What are you working on right now?
- 3) Have you faced any situations that required a solution?

Strategy Generation Process

- 4) How did you try to resolve the issue?
- 5) Did you ask for anyone's help?

Experimentation

- 6) In which ways do you implement the strategies to resolve issues?

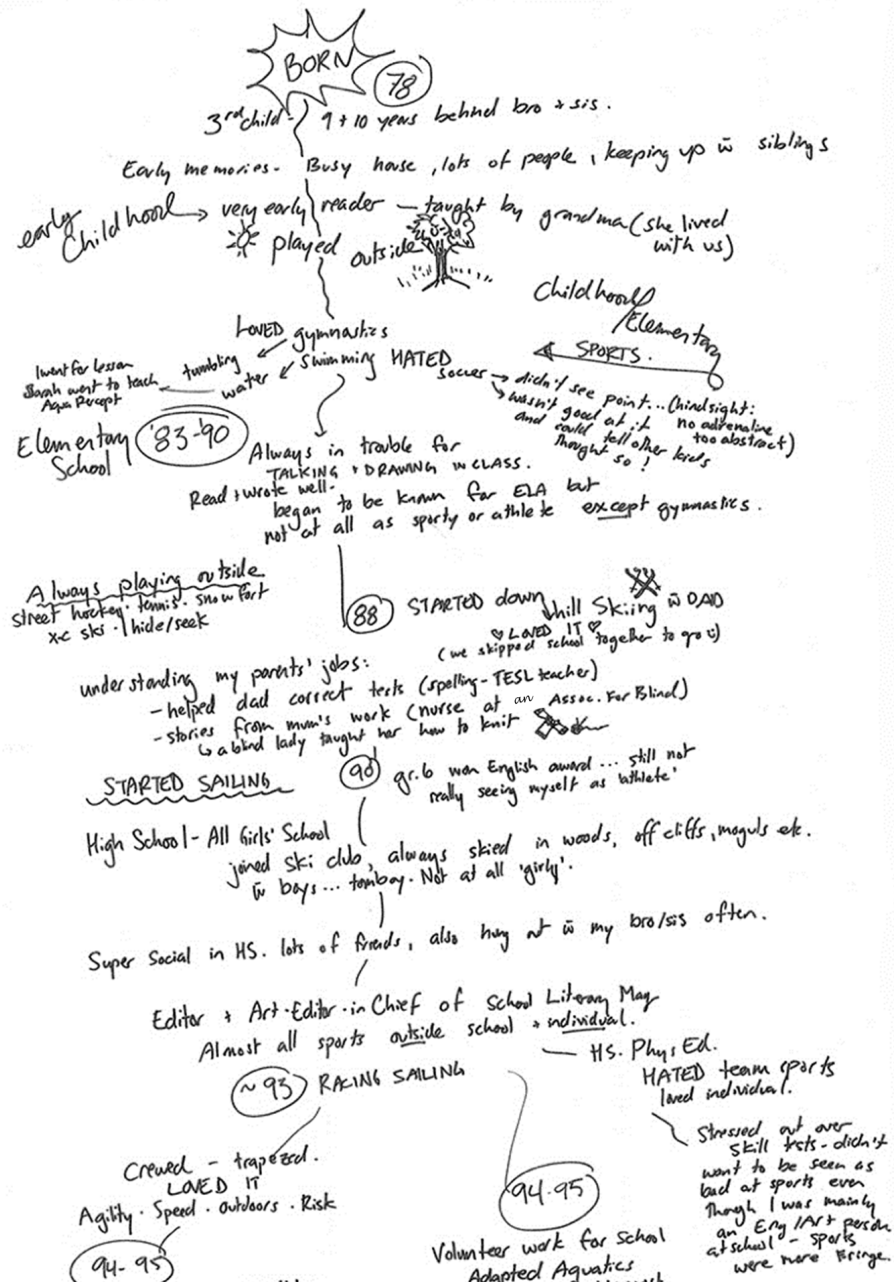
Evaluation

- 7) What types of questions do you ask yourself to evaluate the intervention?

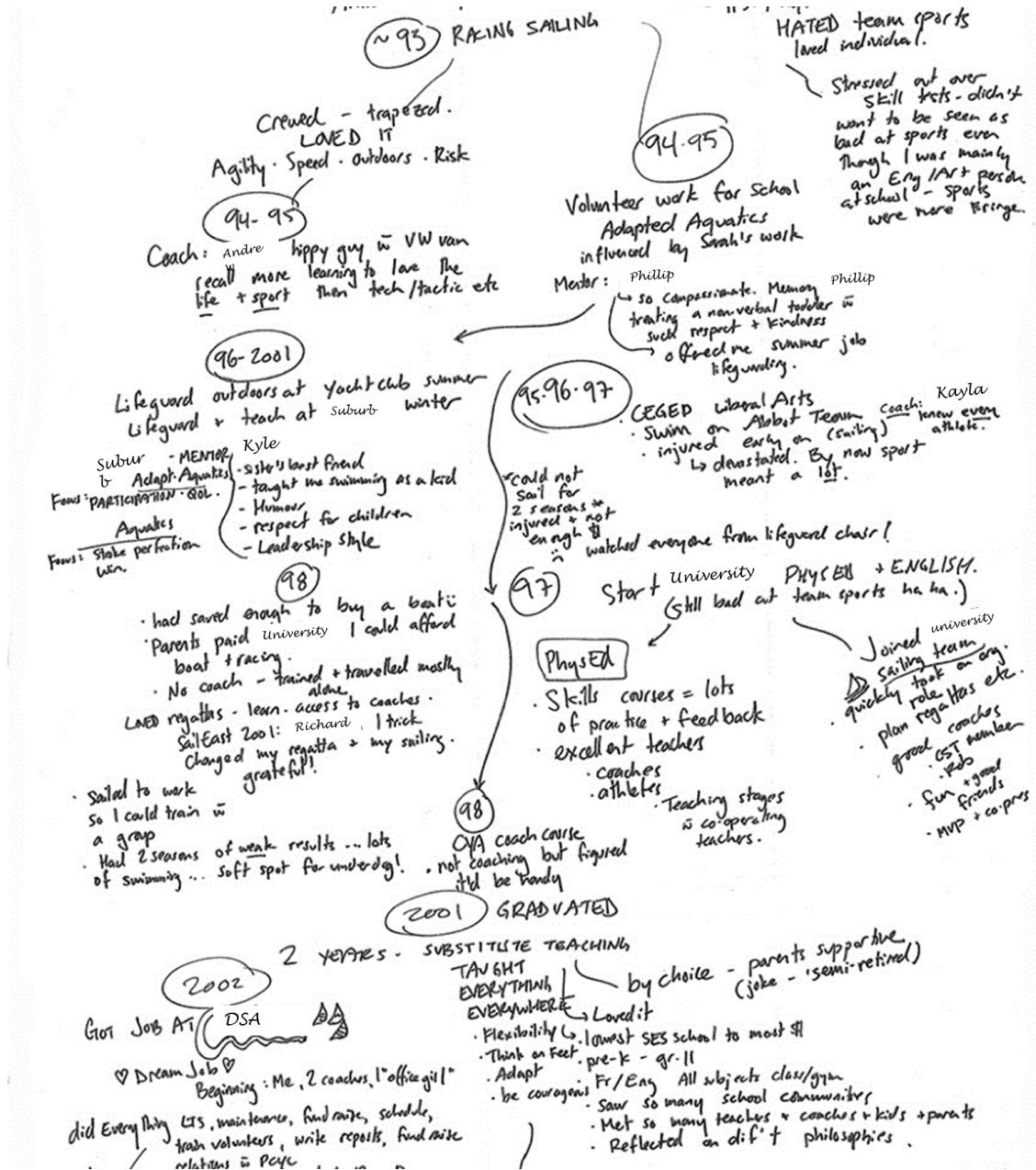
Appendix D

Timeframes of Jenny's Biography

Timeframe 1



Timeframe 2



Timeframe 3



Timeframe 4

