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Understanding How High School Teacher-Coaches Learn to Coach

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MASTER'S THESIS

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Introduction

The past four decades have seen coaching evolve into a main area of sport science research (Gilbert & Trudel, 2004). In this time frame elite level coach learning (Rynne, Mallett, & Tinning, 2006; Salmela, 1995) and developmental level coach learning (Gilbert & Trudel, 2001; Lemyre, Trudel, & Durand-Bush, 2007; Wright, Trudel, & Culver, 2007) have been studied. Approximately 52,000 high school teacher-coaches in Canada belong to the developmental coaching context; however, they share unique biographical characteristics, such as Teachers College, that may differentiate their reported coach learning situations from the rest of the developmental coaching population. As such, we felt there was a need to study teacher-coaches learning independently of the context to which they belong. Further reasoning behind our decision to study high school teacher coach learning will be articulated over the next few paragraphs.

In Canada, access to school sport offers a variety of benefits to its approximately 750,000 student athletes, including “better health and quality of life, psychological well-being, improved behaviour and ability to learn, higher scholastic performance, good health habits, an appreciation of physical activity and sport” (Canadian Sport Policy, 2007). Expanding on this notion with respect to academics, Fraser-Thomas, Côté, and Deakin (2008) stated, “participation in high school sport has been positively linked to school grades, school attendance, choice for demanding courses, time spent on homework, educational aspirations during and after high school, and college attendance” (p. 8). In contrast, researchers have also linked American high school sport to increased

rates of delinquent behaviours, such as skipping school and drinking alcohol (Eccles & Barber, 1999; Lamborn, Brown, Mounts, & Steinberg, 1992).

It is known that without an effective coach, the benefits of participation in sport run the risk of abeyance, as it is the coach who possesses the greatest ability to influence the quality of the experience children have in sport (Hansen, Larson, & Dworkin, 2003; Vernacchia, McGuire, & Cook, 1996). In an attempt to maximize the quality of its country's coaches, and thus the benefits attained by athletes, The Coaching Association of Canada (2008) has developed a nationwide coach education program: the National Coaching Certification Program (NCCP). Most sport organizations in Ontario require their coaches to be certified through the NCCP; however, high school sport policy does not share this requirement, a fact that supports the idea that teacher-coaches are likely subject to different learning situations (Lacroix, Camiré, & Trudel., 2008). It must be noted, however, that coach learning does not occur exclusively via formal learning situations; other learning situations (non-formal and informal learning situations), which will be discussed later, have also proven to be very fruitful (Erickson, Bruner, MacDonald, & Côté, 2008; Lemyre, Trudel, Durand-Bush, 2007; Nelson, Cushion, & Potrac, 2006).

Furthermore, teacher-coaches often coach more than one sport, including sports with which they are unfamiliar because Ontario high schools "favor a short season, and therefore coaches are more likely to be involved in a wide variety of sports" (Lacroix et al., p. 32) during the school year. Despite knowing the benefits attached to high school sport, the influence that coaches have on the sport experience of youth, and the number of persons, both students and coaches, involved in Canadian high school sport, there are still

“relatively few studies looking at high school sports in Canada and even fewer that specifically focus on high school coaches” (Lacroix et al., p. 25).

The above literature paints a picture of high-school sport and quality coaching cooperatively possessing the ability to enhance the life and well being of students. However, as we have noted there is a gap in the knowledge developed with respect to Canadian high school sport and its coaches and it was this gap that gave us the impetus to ask our research question: How do high school teacher-coaches learn to coach? This question was fostered out of the optimistic potential to contribute to the development of learning activities appropriate for high school teacher-coaches that could ultimately help maximize the attainment of the benefits of high school sport for all involved.

Conceptual Framework

The conceptual framework is constructed by the researcher, not found. It incorporates pieces that are borrowed from other research and theories, but the overall structure is something that the researcher builds (Maxwell, 2005). It is designed to examine the existing theories and research that are relevant to what we plan to study. In our Conceptual Framework we have examined our chosen Theoretical Framework (Jarvis, 2006), the coaching context to which our participants belong, the existing literature on developmental level coach learning, and the personal experiences behind the interest in this research.

Theoretical Framework

Knowledge and money are two fundamental stimuli for human subsistence. One underlies the ability to function in wider society while the other is necessary for the consummation of human needs. Wishing to take this comparison one step further, we

state that the prerequisite to knowledge is learning just as the prerequisite to earning of money is normally working. The paragraphs to come will focus on knowledge, but more importantly they will focus on the process of attaining knowledge, known as learning. In an attempt to grasp a greater understanding of the human learning process and the effects society has on human learning we have turned to Jarvis' (2006) theory of human learning which has acted as the foundation for our research. In the upcoming paragraphs we will identify and define the key underpinnings of his theory which will later be used to articulate our understanding of how high school teacher-coaches learn to coach.

Central to Jarvis' (2006) theory is the concept of experiences. An experience occurs at "the intersection of the inner self and the outer world" (Jarvis, p. 7). The inner self is commonly referred to as one's biography. Every time we have an experience we cognitively (through thought), emotively (through feeling) and/or practically (through action) transform the experience into knowledge and/or skills which is/are added to our biography resulting in a changed, more experienced person, who has in turn learned. Jarvis alleges that the outer world is everything external to our mind and body, and is made up of the social situations in which we exist. In order to intersect with the outer world (and have the potential to learn) any of the following six senses (singularly or in combination) must be activated: hearing, seeing, smelling, tasting, touching, and feeling.

Before providing Jarvis' encompassing definition of human learning we must first construe two more terms, harmony and disjuncture, which were developed by Jarvis (2006) to elucidate his theory. Harmony occurs when one's biography is unchallenged by his/her social situation, and his/her body and mind do not require any new cognitive, emotive, and/or practical transformations to interact with the external world. On the

contrary, disjuncture occurs when our “biographical repertoire is no longer sufficient to cope automatically with our [social] situation, so that our harmony with our world is disturbed and we feel unease” (Jarvis, p.17). Jarvis regards disjuncture as the motivating factor behind learning because learning has the ability to liberate the mind of the unease caused by being aware of not knowing (disjuncture). In short, the potential to learn begins when “we become aware of the external world, when our biography and interpretation of the immediate world [social situation] is no longer in harmony, and our actions cannot be taken for granted” (Jarvis, p. 73).

To this point, we have highlighted the ground work supporting Jarvis’ (2006) theory of human learning and have conceptualized the interconnected nature of the body, the mind, and the world. This erudition is requisite for understanding Jarvis’ definition of human learning, which reads as follows:

The combination of processes throughout a lifetime whereby the whole person - body (genetic, physical, and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses): experiences a social situation, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the person’s individual biography resulting in a changed (or more experienced) person (p. 134)

Jarvis’ (2006) definition of human learning is a succinct description of how humans learn over their entire lifetime; however, human learning is extremely complex. In order to expand on the complexity of learning the current paragraph and the following paragraph will identify the internal process of human learning and provide a functional example of the learning process, respectively. The basic internal process of human

learning is invariably catenated by the following steps: First, the person (learner) is unchallenged in his/her current social situation (in harmony). Next, the learner is introduced to a situation which is then perceived by any one or any combination of the six senses. If the persons' biography is insufficient to cope with the current situation he/she becomes aware of not knowing and thus a feeling of disjuncture (the potential to learn) is present. At this point, the learner can return to harmony by (a) choosing to not learn, or (b) choosing to seek and retrieve information that will resolve the disjuncture (learn). In order for learning to occur the latter option must be chosen. Once sufficient information has been retrieved it is then transformed into knowledge via commitment to memory. The result of the transformation of information into knowledge is a person who has changed cognitively, emotively, and/or practically, and thus learned. After this change has occurred the person returns to harmony.

To clarify the learning process we provide an example using the common situation of meeting someone new and learning his/her name. You (the learner) go to grab a coffee on your work break. At the coffee stand you see someone you know, his name is Mark, you know that is his name because you have met him before and committed his name to memory, and as a result there is a sense of harmony when you recognize him. However, Mark has a friend with him, a friend you do not visually (one of the 6 senses) recognize. You are intrigued by her elegance and thus have a motivation to learn more about her. This lack of recognition combined with your motivation elicits a feeling of disjuncture (not knowing who she is, but wanting to know). Mark then introduces you to his friend and verbally (one of the six senses) provides you with her name (information), which is Jill. Once you receive Jill's name you practice remembering

it and finally you commit it to memory. Upon committing the name to memory your feeling of disjuncture is resolved and you return to harmony. You have learned Jill's name and the next time you see her you will recognize her and remain in harmony until you feel the motivation to learn something new about her.

Earlier it was mentioned that feelings of disjuncture can return to harmony by choosing to learn or not to learn, as such, learning is ultimately a choice. Choosing not to learn has been labeled by Jarvis as non-learning which he has subsequently categorized into three distinct routes. The first route, non-consideration, is the direct result of an individual not considering his/her present situation as a learning opportunity and thus no knowledge is gained. Presumption, the second route, occurs when an "individual presumes upon the present situation and does not learn from it" (Jarvis, 2006, p. 10). In instances akin, the individual feels his/her biography is adept to cope with the experiences related to the topic at hand and thus chooses not to learn. The final route, rejection, occurs when an individual rejects the opportunity to learn from a situation that hosts learning potential. The learner receives functional information but decides not to acknowledge it or commit it to memory, which results in an unaltered biography.

When an individual learns, the basic internal process (experiencing disjuncture, receiving information to resolve disjuncture, transforming information into knowledge and/or skill, committing knowledge and/or skill to memory, returning to harmony) remains unchanged with each learning experience. Jarvis (2006) however, recognizes that what is learned and how it is learned changes with each experience and as a result he has divided human learning into two categories: non-reflective learning, and reflective learning, each consisting of three subcategories. Non-reflective learning consists of pre-

conscious learning, practice, and memorization. When learning is pre-conscious the learner experiences a situation, albeit with low awareness and at the moment of the experience does not perceive it as a learning opportunity. After a period, however, the individual recognizes that he/she has learned something. Practice, is defined by Jarvis as “learning without thought” (p. 10). An example of practice learning would be while typing, every time you try to type the word coach you hit the ‘a’ before the ‘o’ and it comes out ‘caoch’, and rather than trying to type the word properly you use the auto-correct option to fix the recurring mistake. Memorization, the final route for non-reflective learning, shares the simplicity of practice, as it occurs when an individual strictly remembers the information which he/she has been given.

The three categories into which Jarvis has divided reflective learning are: contemplation, reflective practice, and experimental learning. When learning proceeds contemplation “the learner reflects upon the situation and either accepts it or changes it” (Jarvis, 2006. p.10). What is occurring here is the individual is not just accepting the information at face value, rather he/she is cogitating about its legitimacy before allowing it to alter his/her biography. Reflective practice is similar to practice learning; however, the individual after attempting to complete a task evaluates the outcome before he/she chooses whether to conform or innovate. Referring back to the typing example, during reflective practice if a person is typing and continues to make the same error, rather than just relying on the auto-correct option, he/she will identify when the word is to be typed and consciously make an effort to type the characters in proper order until it becomes natural. The final category of reflective learning, experimental learning, transpires when an individual thinks about the situation before attempting to complete a task and upon

completion of the attempt, agrees or disagrees with what he/she has experienced (Jarvis). An example of experiential learning is after examining a chocolate chip cookie recipe you follow the recipe and bake the cookies. However, after tasting the freshly baked cookies, which were made with one cup of chocolate chips, you feel that they are not chocolaty enough and decide to alter the recipe and choose to use more than a cup next time.

Non-reflective learning is simple compared to reflective learning because it does not require the individual to critically assess the content of an experience, interpret it, and give meaning to it (Jarvis, 2006). Without reflection an individual can learn what is correct; however, he/she will remain unable to recognize what is not correct. Jarvis truly captured the difference between non-reflective learning and reflective learning when he stated “You can have 50 years experience or one year experience 50 times!” (p. 169). In essence, learning is the responsibility of the learner as it is he/she who chooses what is extracted from each experience.

In the second volume of his trilogy on Lifelong Learning, Jarvis (2007) examines how globalization has propelled radical changes to lifelong learning. Throughout this book Jarvis (2007) continuously alludes to the rapid speed at which the world (society) changes and how its effect frequently leaves humans in a state of disjuncture, “forcing them to learn or to reject the opportunity to learn and live in ignorance” (p.39). The changing world has led to a modification of our understanding of learning, which was traditionally conceptualized as strictly occurring in an institutional environment, but is now recognized as presenting itself in a combination of situations provided by the outer world. The combination of situations include (a) formal situations (institutionalized, and

hierarchically graded), (b) non-formal situations (institutionalized, but not hierarchically graded), and (c) informal situations (day to day experiences). Human learning, therefore, is no longer limited to situations provided by social institutions, as the potential to learn is affixed to “every opportunity made available by any social institution for, and every process by which, an individual can acquire knowledge, skills, attitudes, values, emotions, beliefs and senses within global society” (Jarvis, 2007, p. 99).

The rapid changes of modern society frequently leave humans in a state of disjuncture without allowing ample time for learning to occur. This has led Jarvis to the identification of two other types of learning: maintenance learning and innovative learning. Maintenance learning is “the acquisition of fixed outlooks, methods, and rules for dealing with known and recurring situations... and is indispensable for the functioning and stability of every society” (Jarvis, 2007, p. 30). It is the most common learning, and often does not involve the reflective process. Contrary to maintenance learning is the concept of innovative learning which requires reflection and much more time to accomplish, but possesses a greater capability to contribute to the advancement of society. Jarvis (2007) contends that innovative learning is the type of learning that occurs to “bring change, renewal, restructuring, and problem reformulation” (p.30).

Being competent and being an expert are two other descriptors of the outcomes of learning that are connected to maintenance learning and innovative learning. Being competent is conceptualized as “in a sense, when a practitioner acquires the necessary expertise to fit into the social situation and begin to take the situation and practice for granted” (Jarvis, 2009, p.107), and like maintenance learning, does not require as much time to achieve when compared to its counterpart. Becoming an expert, however, is a

time consuming feat that is recognized when a practitioner “continues to create his/her own disjuncture in the practice situation in order to enhance their expertise beyond that of merely fitting in” (Jarvis, 2009, p.07). Although innovative learning and being an expert hold great potential for the advancement of society, society and its many organizations generally only require competent members because, overall, the acquisition of competence is much less time consuming and time is money.

Additionally, because society’s organizations are restricted by lack of time, they have become rigid and dominated by rational procedures. The problem with this is that “once one has entered the organization and learned the rules and regulations there is little or nothing more to learn about the organization’s operation” (Jarvis, 2007, p.107) and non-learning, maintenance learning, and competence become the chosen paths of existence. Overall, reflective learning, the promotion of innovation, and the development of expertise are inhibited by the society in which we live.

On a final note, in light of learning as a complex phenomenon, Jarvis (2006) accepted the limitations of his theory of human learning when he averred that “we do not know everything there is to know about how the body, the brain and the mind interact [learning]” (p. 199), and therefore “no existing theory of human learning [not even my own] have actually explained the whole of the learning process” (p. 199). Nonetheless, we believe that Jarvis has developed the most comprehensive theory of human learning to date and that is why it has acted as the framework for identifying and understanding how high school teacher-coaches learn to coach.

Coaching Context

Trudel and Gilbert (2006) have identified three contexts in which coaching occurs: recreational sport coaching, developmental sport coaching, and elite sport coaching. For this paper the developmental sport coaching context will be the context discussed because that is the context of Ontario high school sport. The developmental sport coaching context “includes a formal competitive structure, increased commitment from athletes and coaches, a stable relationship between athletes and coaches, and athletes are selected based on skill tryouts” (Trudel & Gilbert, p. 521).

Developmental Level Coach Learning Research

The existing literature section identifies and explains the terminology that will be applied during the analysis process and reviews the findings of several studies that have examined coach learning (one American study and three Canadian studies).

Trudel, Gilbert, & Werthner (2010) state that:

Although expressions such as formal learning, and informal learning are used by authors (Lohman, 2006; Merriam et al., 2007; Nelson et al, 2006) we believe, as suggested by Jarvis (2006), it is more appropriate to talk about learning in situations that are formal, non-formal, and informal (p. 22)

In conjunction with Trudel et al. and Jarvis (2006), we believe that humans learn in different situations throughout their lifetime. Therefore in an attempt to limit confusion of terms this paper will classify the learning situations documented in reviewed studies as formal, non-formal, or informal situations (Jarvis, 2007) as opposed to classifying by learning type.

With respect to coaching, formal learning situations are those that “take place in an institutionalized, chronologically graded and hierarchically structured educational

system (e.g., large-scale coaching programs)” (Trudel & Gilbert, 2006, p. 518). Trudel and Gilbert further identified the framework of most large-scale coaching programs as “(a) coaching theory, (b) sport-specific techniques and tactics, and (c) coaching practice” (p. 518), where a certification is received upon completion of the program. Non-formal learning situations are conceptualized as any organized systematic, educational activity conducted outside the framework of the formal system to provide select types of learning to particular subgroups in the population (e.g., coaching conferences, seminars) (Nelson, et al., 2006). Informal learning situations deviate from the other two types as they are experienced when a person “accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment” (Nelson et al., p. 52).

The next few paragraphs will discuss the learning situations reported in four existing studies that have examined developmental level coach learning: (1) Sage’s (1989) research that studied the process of American high school teachers becoming high school coaches: (2) Wright et al.’s (2007) study that identified the different learning situations reported by youth ice hockey coaches: (3) Lemyre et al.’s (2007) study that examined how youth sport coaches learn to coach, and: (4) Erickson et al.’s (2008) study which examined the actual and preferred sources of coach knowledge of developmental level coaches.

Sage (1989) observed and interviewed 50 American teacher-coaches and focused on the transition from athlete to coach. In doing so he found that, for his sample, learning through playing experience, an informal learning situation, was reported as the most valuable means of gaining coaching knowledge. A main reason for this finding was that 48% of the teacher-coaches in his study did not decide that they were going to coach until

they were in teachers college and as a result they were unprepared to take on coaching duties. Despite having inexperienced coaching biographies, almost all of the teacher-coaches in Sage's study had participated in some type of competitive sport. The participants identified this participation as being essential for taking on the role of a coach because they had "had first hand opportunity to observe their own coaches and acquire some informal images and impressions about the coaching occupation from them" (Sage, p. 90). Sage's study was focused on the importance of athletic experience for becoming a teacher-coach and therefore he did not mention the formal or non-formal coach learning situations that the participants may have engaged in while learning to coach.

Wright et al.'s (2007) study showed that youth ice hockey coaches learn through all three types of learning situations. The researchers interviewed 35 youth ice hockey coaches to determine what learning opportunities contributed to their development of coaching knowledge. First, in agreement with Sage's (1989) findings, the coaches in this study identified playing experience (an informal learning situation) as a way of helping them develop as coaches. More specifically, they reported that playing experience helped them understand the game because they had had the opportunity to experience the knowledge and behaviours of a wide variety of coaches. Experience as an assistant coach was also highly regarded as a valuable learning experience because it helped the coaches learn how to communicate and teach, which took them beyond knowing the game. This finding was consistent with Trudel and Gilbert (2006), who, in a review of literature, identified that before assuming their current coaching position coaches belonging to the developmental context "spend approximately four years as assistant coaches" (p. 521).

Other informal learning situations reported by the youth ice hockey coaches were interacting with others; and the use of books, videos, and the Internet. The youth ice hockey coaches reported that interactions with coaches on the same team were common, interactions with coaches on different teams were very rare, and only a few coaches interacted with elite level coaches. All of these face-to-face interactions included the exchange of coaching information as well as observation of other coaches in action.

Books and videos were most often consulted by beginner coaches who were trying to expand their knowledge of tactics, as well as increase their personal library of drills. Experienced coaches tended to use books and videos for more advanced topics such as philosophies, sport psychology, and fitness because they expressed already having the tactical knowledge and a large bank of drills. The Internet, because of its vast array of coaching websites and its easy access, was reported as being very useful for all levels of coaches. As one expert coach put it, “it is useful for keeping my program fresh” (Wright et al., p. 139).

Non-formal learning situations were regarded as valuable and enjoyable by some of the youth hockey coaches, the value coming from listening to experts explain hockey specific strategies. The majority of the sample, however, had not engaged in any non-formal learning situations.

In regards to formal learning situations, Hockey Canada’s National Coaching Certification Program (minimum Level 1 of 3) was completed by all 35 participants; however, the participants had inconsistent views pertaining to the program’s utility. Coaching Level 1 was indeed beneficial for coaches who were relatively inexperienced in hockey, but the benefits did not translate to more experienced coaches. There was little

unanimity between the benefits reported on the Level 2 course, as some coaches felt it provided worthy information and practical experience, while others believed it lacked the hockey-related material that was found in non-formal situations. Despite very positive comments and perceptions about the NCCP's Level 3 the many barriers attached to it (e.g., cost and time constraints) prevented most of the coaches from taking it (Wright et al., 2007).

Another study, by Lemyre, Trudel, and Durand-Bush (2007), examined 36 youth sport coaches (12 from hockey, 12 from soccer, and 12 from baseball) to identify the situations which contributed to their coach learning. Lemyre and colleagues' findings, with respect to informal learning situations, were similar to the findings of Wright et al. (2007), as the participants reported great value in interacting with others (e.g., assistant coaches, family, and friends) as a means of gaining information. Similar to Wright et al.'s study, the Internet and other resources (e.g., books, videos, and manuals) were used to help the coaches develop their repertoire: inexperienced coaches used them for drills and tactics, and more experienced coaches used them for nutrition and motivation.

Of the 36 youth sport coach participants in the study, 30 had taken at least their Level 1 of the NCCP (a formal learning situation). Their opinions about the NCCP's Level 1 were of a similar vein as the 35 hockey coaches in Wright and colleagues' (2007) study, as they reported the course having limited relevance for most coaches other than coaches who were relatively inexperienced. The results of this study mentioned very little about non-formal learning situations as a key learning situation for the development of coach knowledge.

In a more recent study, Erickson and colleagues (2008) examined 44 developmental coaches from various sports to determine their actual and preferred sources of coach knowledge. Erickson and colleagues found that coaches of the developmental coaching context identified learning by doing and interacting with others (two informal learning situations) as their first and second ranked preferred ways of learning, respectively. Like the results of Wright and colleague's (2007) study and The Lemyre and colleagues study (2007), the results of Erickson et al.'s study highlighted being an assistant coach (learning by doing) as a key component of coach development. Erickson and colleagues reported playing experience as another informal learning (by doing) situation contributing to coach knowledge; this finding was also seen in Sage's (1989), Lemyre et al.'s and Wright et al.'s studies. However, for the soccer coaches the Lemyre et al. study, playing experience and coaching experience were not as predominant of a learning situation which they attributed to the fact that "ice hockey and baseball are a more integral part of the Canadian culture than soccer is" (p.202).

Erickson et al. stated that their participants engaged in communities of practice as an informal situation contributing to gaining coach knowledge. However, a Community of Practice, which will be discussed later on, is not a well understood concept, therefore it is not clear whether the participants in Erickson et al.'s study were describing communities of practice, or informal knowledge networks (Culver & Trudel, 2008). Regardless of the terminology, interactions with others was found to be a predominant situation for coach learning, a finding that was also seen in the Lemyre et al. (2007) and Wright et al. studies.

Alternative informal situations used to expand coach knowledge with respect to drills, strategies and tactics, were books, videos, and the Internet (Erickson et al., 2008). Although these situations were ranked as the second lowest actual source of coach knowledge these learning situations were identified as fruitful in both Lemyre et al.'s (2007) and Wright et al.'s (2007) studies, showing that they are in fact viewed by coaches as valuable.

Erickson et al. (2008) found that non-formal learning situations were the lowest ranked actual and preferred means of gaining new coach knowledge. The participants of previous coach learning studies (Sage, 1989; Wright et al. 2006) shared similar results as little emphasis was placed on the value of non-formal learning situations to the development of coach knowledge.

One of the motivating factors behind the Erickson and colleagues' (2008) study was to identify the actual value given to formal coach education by developmental level coaches because the researchers believed that the value of formal coach education was being underrepresented. The results depicted that formal coach education was the third ranked actual and preferred way of acquiring coach knowledge. The participants liked these situations because they were mediated and were found to be more efficient than learning on your own. In contrast, Lemyre et al. (2007) and Wright et al. (2007) did not find formal learning situations to be regarded as one of the most valuable learning situations experienced by coaches. A reason for the contrasting findings could be that the participants in the Erickson et al. required a minimum of Level 2 coaching certification through the NCCP whereas the participants of the Lemyre et al. and Wright et al. studies were not required to have any formal coach training. It is possible that with increased

experience coaches are able to identify valuable information from formal coach education and fit it into their coaching practice.

The four studies we have examined (Erickson et al., 2008; Lemyre, 2007; Sage, 1989; Wright, 2007) have identified that developmental coach learning encompasses formal, non-formal, and informal learning situations across the lifespan. The NCCP (formal), interactions with others, player experience, coach experience, as well as many informal resources (books, manuals, DVD/videos), proved to be very popular and accessible means of gaining coach knowledge, whereas non-formal learning situations seem to be less popular perhaps due to less availability.

Apart from the previously highlighted research, other studies have examined specific areas of coach learning (e.g., formal coach education, interacting with others, communities of practice, reflection). With respect to formal learning situations, Werthner and Trudel (2006) have shown that they “are not valued by coaches as much as their day-to-day learning experiences in the field [informal learning situation]” (p. 199). However, formal coach learning situations are extremely useful as they, “impact coaching behaviours beyond the classroom, by establishing standards of ethical practice, requirements for recertification, and opportunities for coaches, athletes, and parents to access tools and advice” (Coaching Association of Canada, 2008).

There seems to be an undulating debate over what is needed to make formal coach education a success. On one hand, Nelson et al. (2006) stated that “While the coach learner is an essential element in the learning process the coach educator is not, as learning often occurs without teaching” (p. 249). On the other hand, Werthner and Trudel (2006) noted that “The role of an effective course conductor is to be aware of whom they

are teaching and how to make the material useful and challenging” (p. 204), and thus the course conductor is important to the outcomes of formal coach learning situations. Therefore, although formal coach education may not be the ideal learning situation for every coach, if the participants are open to learning and the instructor is skilled, participants will be able to enhance their coaching biographies.

Interactions with others, as discussed earlier, can occur within informal knowledge networks which are typically composed of “individuals who are familiar with each other and are used for collecting and passing information” (Culver & Trudel, 2008, p. 4). Informal knowledge networks can be further developed to become communities of practice. Communities of practice differ from informal knowledge networks because learning in a Community of Practice goes beyond information exchange to knowledge creation. Furthermore, communities of practice require their members to engage and sustain ongoing interactions whereby there is a joint enterprise, mutual engagement, and the development and sharing of tools (Culver & Trudel). They have rich potential to help develop and share knowledge; however, due to their specific requirements and the competitive nature of much sport, they are far less common than informal knowledge networks (Culver & Trudel, 2006; Culver & Trudel, 2008).

Reflection is “the process that mediates experience and knowledge and therefore is the heart of all experienced-based learning theories” (Gilbert & Trudel, 2001, p. 17). Reflection is viewed as an important tool used to foster developmental level coach learning because it is the process that allows coaches to analyze their experiences (e.g., playing experience, assistant coaching experience) and from there, disregard and/or adopt behaviours they have seen in the past (Gilbert & Trudel; Lemyre et al., 2007; Wright et

al., 2007). Reflection can be implemented in all types of learning situations, it can also occur in solitude, within an informal knowledge network, or within a Community of Practice. Researchers have proffered that the productivity of reflection is often heightened when it involves interactions with others such as friends, family members, assistant coaches, and mentor coaches (Lemyre et al., 2007).

As noted earlier, Lacroix and colleagues (2008) identified that there is limited research that has examined Canadian high school coaches. After conducting a review of literature we further identified that, of the little research examining high school coaches, none has yet to understand how Canadian high school teacher-coaches learn to coach. Jarvis' (2006) theory of human learning identifies that our biographies influence our learning, and it is known that teacher-coaches will have at least some common elements of their biographies that differ from coaches at large (e.g., Ontario secondary school teachers must complete five years of post secondary education, as well as 40 hours of practicum (Ontario College of Teachers, 2009)). Therefore, there is a need to identify and understand high school teacher-coach learning and to do so we must collect data from a number of teacher-coaches, and identify and analyze the learning situations that have contributed to their present day coaching knowledge and abilities.

Personal Interest

I believe that the education system is designed to provide an environment in which the youth of our society can grow into educated, responsible, and caring citizens. I also believe that sport is an integral part of this process and it is this belief that has impelled me to focus my research on high school sports, more specifically high school teacher-coaches.

Teacher-coaches, who are the root of high school sports, devote countless hours to coaching high school teams for the purpose of enriching the experience of high school students. My five year high school tenure was without a doubt enriched by the many sports teams to which I belonged. I had a number of different coaches, and I truly felt that each coach, in his/her unique way, put forth his/her best effort to ensure that the team he/she coached shared fun, memorable, and valuable experiences. After doing a review of literature I realized that there is little research looking at high school teacher-coaches, and I felt that the first thing I should seek to understand about high school coaches is how they learn to coach.

Epistemology

An epistemology “is a set of beliefs about the world and about gaining knowledge that goes together to guide your actions as to how you are going to go about doing your research” (Steinhauer, 2002, p. 71). Our research was undertaken within a constructivist epistemology which views the nature of knowledge as follows:

Knowledge consists of those constructions about which there is relative consensus among those competent to interpret the substance of construction. Multiple “knowledges” can coexist when equally competent interpreters disagree... These constructions are subject to continuous revision, with changes most likely to occur when relatively different constructions are brought into juxtapositions in a dialectical context (Guba & Lincoln, 1994, p. 113).

Constructivism is the epistemological view that best aligns with our beliefs about how knowledge is created, as well as our chosen theoretical framework, Jarvis’ (2006) theory of human learning. In selecting this epistemology we have recognized that there is no one

version of the situations in which high school coaches learn to coach. In agreement with Jarvis, Guba and Lincoln, and Schwandt (2001), we acknowledge that each person, because of his/her individualistic biography, experiences learning situations in unique ways, guided by social processes and interactions, whereby he/she constructs knowledge rather than discovers it. The meaning that each participant gives to his/her learning situations has historical and socio-cultural dimensions to it, therefore the results of this study were bounded by the interactions that each participant had experienced with others and with his/her own world.

Methodology

A methodology “is a particular social scientific discourse (a way of acting, thinking, and speaking) that occupies a middle ground between discussions of method and discussions of issues in the philosophy of social science” (Schwandt, 2001, p. 161). It consists of “the strategy, plan of action, process or design lying behind the choice and use of particular methods” (Crotty, 2008, p. 3). The methodology we have implemented for the answering of the research question - “How do high school coaches learn to coach?”- is basic interpretive qualitative research.

Merriam (2002) stated that the implementation of basic interpretive qualitative methodology (BIQM) is appropriate when “The researcher is interested in understanding how participants make meaning of a situation or a phenomenon” (p. 6). Merriam further discusses that in a basic interpretive qualitative study meaning is mediated through the researcher as instrument, and the outcome is descriptive. Therefore, when applying the BIQM “you seek to discover and understand a phenomenon, a process, the perspectives and worldviews of the people involved” (p.6), which was the aim of our research.

Method

Our study was divided into two parts (see Appendix A). The first part included 31 semi-structured interviews focused on the coaches' biographies and the formal, non-formal, and informal learning situations reported by high school coaches, and the second part consisted of two focus groups examining the colleague interaction as a learning situation. As such each part will be explained independently of one another. However, considering the interconnected nature of our participant selection and our data collection, we have decided to combine these two method phases into one section.

Participant Selection and Data Collection

Part One. The coaches selected for this study were Ontario high school teacher-coaches with a minimum of one season experience as a head coach of a high school sport team. Any high school sport (individual or team), at any level (midget, junior, senior) was an acceptable fulfillment of this requirement. The minimum one season of school sport coaching experience was in order to ensure that our teacher-coaches' biographies included the high school coaching process.

Participant recruitment did not begin until ethical approval was granted by the University of Ottawa's Research Ethics Board. The participants were contacted through The Ontario Federation for School Athletic Associations (OFSAA). An email was sent to OFSAA explaining the proposed study and all of its characteristics. The email was then sent to the local (Ottawa) OFSAA coordinators, who forwarded it to coaches in their areas. We relied on the teacher-coaches to respond to us, as we were not in direct contact with any participant until he/she sent us a response email. Once we had been contacted by the teacher-coaches who were interested in participating in the study, a short email was

sent to each respondent explaining the study more fully. From that point we negotiated a time and place to conduct the interview; however the decision of when and where to conduct the interview was ultimately up to the participant in an attempt to maximize convenience for him or her. Informed consent was obtained prior to interviewing.

We used a combination of snowball sampling and maximal variation for participant recruitment (Miles & Huberman, 1994)(Creswell, 2007). Snowball sampling was executed by asking the teacher-coach interviewee if he/she knew any other coach who would like to take part in the study and maximal variation was carried out by asking the participant to direct us towards coaches with different biographical repertoires from themselves (e.g., more or less coaching experience). Part One participants were 31 high school teacher-coaches (15 female and 16 male) from 17 different high schools, 12 of which were urban schools from the National Capital Secondary Schools Athletic Association, and 5 rural schools from the Eastern Ontario Secondary Schools Athletic Association. See Appendix B for coach characteristics.

The data collection process included conducting semi-structured interviews, using an interview guide, in person (See Appendix C for Interview Guide). The interview guide included questions pertaining to each individual's background coaching/sport experience (e.g., How many years experience do you have as a teacher coach?); information on how they learned to coach (e.g., How do you prepare for your practices? Have you taken any formal coach education?); challenges faced while coaching (e.g., Are there any challenges you have faced while learning to coach?); and ways to make the coaching process easier (e.g., How do you feel learning to become a high school teacher-coach could be made easier?). After the initial interviews the guide was minimally adjusted and

remained constant throughout the rest of the data collection period. While respecting the responses of the participants, strategic questions were used in order to probe and encourage further detail. The interviews ranged between 30 and 75 minutes in duration. Furthermore, in conjunction with Jarvis (2006) we believe that the correct way to understand the different processes of learning is by getting adults to discuss their own learning. It is for this reason semi-structured interviews were used to uncover the lifelong learning situations that contributed to high school teacher-coach learning.

Part Two. The second part involved two focus groups examining colleague interaction as a learning situation. Part Two was developed before the completion of Part One, as it was based on the preliminary finding that teacher-coaches were heavily favouring learning to coach through their within school interactions with other coaches. The participants for the focus groups were selected based on the interview responses in Part One. We selected two groups of three participants from two separate schools.

Throughout the fall season the researchers sent emails to the participants of the two separate schools asking them to succinctly document by return email any particular learning situations that occurred. During the middle of the fall school semester a focus group was conducted with the three participants from each school to discuss topics that arose during the initial interviews and in the email responses. Focus group research was exercised in Part Two because focus groups are “a key site or activity where pedagogy, politics, and interpretive inquiry intersect and interanimate each other” (Kamberelis & Dimitriadis, 2005, p. 903) and because focus groups have synergistic potentials that “often produce data that are seldom produced through individual interviewing and observation and that result specially powerful interpretive insights” (Kamberelis &

Dimitriadis, p. 903). The interviews and focus groups were conducted in person by the lead researcher.

Data Analysis

The analysis began as soon as the first interview was recorded and remained active throughout the collection of all of the data. All of the interviews were transcribed verbatim, giving a total of 448 single spaced pages. During the transcription process notes were created to identify potential coding schemes emerging from the data (Braun & Clarke, 2006). Additional data was obtained when the transcriptions were sent back to the participants (member checking) allowing them to revise their responses if they felt the need (Schwandt, 2001). Once the participants approved their transcripts, the transcripts were re-read and coded using mostly deductively developed organizational categories (Maxwell, 2005). NVivo 8 software (Qualitative Solutions and Research, 2007, version 8), a computer program designed to help organize and code data, was used.

The next phases of analysis employed Braun and Clarke's thematic analysis method and utilized concepts from Jarvis' (2006) theory of human learning (e.g., formal, non-formal, and informal learning situations). The coded data was re-read and sorted into potential themes (e.g., athletic experience before coaching, and time restrictions). Relationships between codes, between themes, and between different levels of themes were identified and illustrated using a concept map. The next phase consisted of reviewing the themes and evaluating whether they appeared to create a coherent pattern without ignoring divergent themes. During this phase the data set was re-read in order to code any additional data that may have been overlooked within the themes.

The identified themes were then defined and refined until they were ready to use in the interpretation of the data. Defining themes was focused on identifying what they are and also what they are not. The collated extracts for each theme were logically organized and prepared for utilization in the write up. Once an extract was selected for the write up, the researcher checked the transcript from where it came in order to ensure the context and meaning were not being altered.

The focus groups conducted in the Part Two of the study followed the same analysis process as the first set of interviews: they were transcribed verbatim (8 pages each), and organizationally categorized. Unlike the interviews, however, the focus group did not undergo member checking. Once this process was complete we employed Braun and Clarke's (2006) thematic analysis method as described above.

Article 1

Running Head: High School Teacher-Coach Learning

Understanding How High School Teacher-Coaches Learn to Coach

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Abstract

There are approximately, 52,000 volunteer teacher-coaches coaching 750,000 student athletes in Canada (Canadian School Sport Federation, 2009). Despite this large population, Canadian high school teacher-coaches are relatively unstudied when compared to developmental level coaches. The participants of this study were 31 Ontario high school teacher-coaches. They were interviewed in person using an interview guide, and two groups of three participants were involved in focus group data collection. This research employed Jarvis' (2006) theory of human learning which contends that learning occurs when our life experiences transform our biography. Results indicate that 19 teacher-coaches had formal coach education; however, their appreciation of it was tempered by their biographies. Despite bemoaning the dearth of non-formal learning opportunities, participants still viewed these learning situations as attractive due to the efficient development of coaching competency, especially when they were to coach a sport with which they were unfamiliar. Consistent with the literature, informal learning situations were the predominantly reported learning situations. In particular, coaching experience and/or playing experience were two life experiences regarded as useful for learning to coach, as well as resources such as the Internet and books/DVDs.

Increasing attention has been paid to coach learning over the past fifteen years. Previous research examined how elite level coaches learn (Rynne, Mallett, & Tinning, 2006; Salemela, 1995) because it was believed that these coaches, due to their status, would be the archetype for how all coaches should learn. In recent years the direction of coach learning research has shifted towards developmental and recreational level coach learning, in part due to the belief that coaches of different contexts have different learning needs (Lemyre, Trudel, and Durand-Bush, 2007).

In line with this notion, high school teacher-coaches, who belong to the developmental context, which “includes a formal competitive structure, increased commitment from athletes and coaches, a stable relationship between athletes and coaches, and athletes are selected based on skill tryouts” (Trudel & Gilbert, 2006, p. 521), are believed to experience learning needs somewhat different from the rest of the context. This belief stems from the small body of literature on teacher-coaches which has identified that Ontario high school teacher-coaches, unlike most developmental level coaches, do not require formal coach training; are more likely to coach a variety of sports, including ones with which they are unfamiliar; have a lower average age, which is believed to be linked to problems of retention (Lacroix et al., 2008); and are expected to enter their profession the first day and perform to the exact same standard as their more experienced colleagues (Bell, 1997). However, like many developmental level coaches, teacher-coaches are volunteering their time and receive no financial compensation. In addition, Glassford and Salinitri, (2007) have identified that the expectations placed upon new teachers have lead to overwhelming pressures that often cause high drop out rates of teachers. The loss of teachers has been combated by Ontario school boards with the use

of a mentor program (Glassford & Salinitri). However, to our knowledge, the problem of teacher-coach retention (Lacroix et al., 2007) has yet to be addressed, as no such learning tool has been implemented.

Within the very small body of literature on Canadian high school sport, there is almost no research examining high school coaches. Therefore, this article will address the gap in the literature by identifying how high school teacher-coaches learn to coach. Our findings will be compared to the literature on developmental coach learning, and, if appropriate, we hope to discuss insights that will contribute to the development of learning activities appropriate for high school teacher-coaches.

Human Learning

The changing world has led to a modification of our understanding of learning. Learning, which was traditionally conceptualized as synonymous with education and occurring strictly in an institutional environment, is now viewed as “Every opportunity made available by any social institution for, and every process by which, an individual can acquire knowledge, skills, attitudes, values, emotions, beliefs and senses within global society” (Jarvis, 2007, p. 99). We learn through extracting information from the social situations in which we exist and transforming this information into knowledge and/or skills. Every transformation results in a changed person who has become more experienced, so as we live and learn, we become who we are. Jarvis has chosen to use the term ‘biography’ to capture the concept of who we have become: the accumulation of knowledge and skills.

When our biography is unchallenged by our social situation, and our body and mind do not require any new cognitive, emotive, and/or practical transformations to

interact with the external world, Jarvis (2006) identifies this state of being as 'harmony'. Contrary to harmony is the state of disjuncture. Disjuncture occurs when our "biographical repertoire is no longer sufficient to cope automatically with our [social] situation" (Jarvis, p.17). Disjuncture is regarded as the motivating factor behind learning because learning has the ability to liberate the mind of the unease caused by being aware of not knowing. In short, the potential to learn begins when "we become aware of the external world, when our biography and interpretation of the immediate world [social situation] is no longer in harmony, and our actions cannot be taken for granted" (Jarvis, p. 73).

The world around us is continuously providing us with opportunities/situations from which we can learn and as long as we continue to exist we will be confronted with learning opportunities; therefore, learning is rendered a lifelong process (Jarvis, 2006). The situations from which we can choose to learn include: (a) formal situations, (b) non-formal situations, and (c) informal situations. In this article we will be categorizing the previous literature on developmental coach learning, as well as our own findings under the headings formal, non-formal, and informal learning situations. However, before we examine the literature on coach learning we wish to provide a few more insights into the intricacies of human learning with the use of Jarvis' (2006) theory of human learning which acted as the framework for this study.

Two types of learning addressed by Jarvis (2007) are maintenance learning and innovative learning. Maintenance learning is "the acquisition of fixed outlooks, methods, and rules for dealing with known and recurring situations... and is indispensable for the functioning and stability of every society" (Jarvis, 2007, p. 30). Contrary to maintenance

learning is the concept of innovative learning which requires reflection and much more time to accomplish, but possesses a greater capability to contribute to the advancement of society. Jarvis (2007) contends that innovative learning is the type of learning that occurs to “bring change, renewal, restructuring, and problem reformulation” (p.30).

Competence and expertise are two descriptors of learning that share similar properties with maintenance learning and innovative learning. Competence is conceptualized as “the ability to perform a task, not do something well” (Jarvis, 2007, p.93) and expertise is understood as the ability to continuously do something well and to adapt to change with little or no hesitation. Although innovative learning and expertise hold great potential for the advancement of society, society and its many organizations generally only require competent members because, overall, the acquisition of competence is much less time consuming and time is money.

Furthermore, because society’s organizations are restricted by lack of time, they have become rigid and dominated by rational procedures. The problem with this is that “once one has entered the organization and learned the rules and regulations there is little or nothing more to learn about the organization’s operation” (Jarvis, 2007, p.107) and maintenance learning, and competence become the chosen paths of existence.

Formal Situations

Formal learning situations are those that “take place in an institutionalized, chronologically graded and hierarchically structured educational system (e.g., Large-scale coaching programs)” (Trudel & Gilbert, 2006, p. 518). The framework of most large-scale coaching programs is “(a) coaching theory, (b) sport-specific techniques and tactics, and (c) coaching practice” (Trudel & Gilbert, p. 518), where a certification is

received upon completion of the program. With respect to coaching in Canada, the National Coaching Certification Program (NCCP) is the primary formal coach learning situation and it is “designed to meet the [learning] needs of all types of coaches, from the first-time coach to the head coach of a national team” (Coaching Association of Canada, 2008). Presently, the NCCP has evolved from a knowledge based program to a competency based program. Rather than passing levels based on the absorption of information, the new NCCP courses now focus more on coaches’ abilities. The levels (1 to 5, based on a novice to expert continuum) have been replaced with three streams and a total of eight contexts. Most of the research on developmental coach learning occurred before the NCCP’s evolution and therefore the literature makes reference to levels rather than streams and contexts.

The NCCP’s Level 1 has typically been regarded as a viable learning tool only for coaches who are relatively inexperienced in the sport they coach (Lemyre et al., 2007; Meisner & Danylchuk, 2009; Wright et al., 2007). Coaches who have taken their Level 2 had mixed feelings about the utility of the course, as some felt it provided worthy information and practical experience, while others held the belief that it was not specific enough (Lemyre et al.). Despite very positive comments and perceptions about the NCCP’s Level 3, the many barriers attached to it (e.g., cost and time constraints), prevented many coaches from taking it (Meisner & Danylchuk; Wright, Trudel, & Culver, 2007).

Erickson, Bruner, McDonald, and Côté (2008) reported that formal coach education was ranked the third out of seven, after learning by doing and interacting with others, for actual and preferred ways of acquiring coach knowledge. The participants

liked these formal situations because they were found to be more efficient than learning on their own. A reason for these contrasting findings could be that the participants in the Erickson et al. study required a minimum of Level 2, and were therefore more likely to have advanced to levels 3 and 4.

Non-Formal Situations

Non-formal learning situations are conceptualized as any organized systematic, educational activity conducted outside the framework of the formal system to provide select types of learning to particular subgroups in the population (e.g., coaching clinics, seminars) (Nelson, Cushion, Potrac, 2006). Erickson et al. (2008) found that these situations are the lowest ranked actual and preferred means of developing coach knowledge by developmental coaches. Lemyre et al. (2007) and Wright et al. (2007) both reported that their participants engaged in non-formal learning situations; however, very little detail was provided with respect to their utility. Thus, the contribution of these learning situations to the development of coach knowledge remains unclear.

Informal Situations

Informal learning situations deviate from the other two situations as they are experienced away from an organized, systematic activity; more specifically, in informal situations a person “accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment” (Nelson et al., p. 52). Gilbert and Trudel (2001), among others, have confirmed that informal learning situations are often the primary source of knowledge for coaches as well as the most favourably viewed (Erickson et al., 2008; Werthner & Trudel, 2006).

Trudel and Gilbert (2006), in a review of literature, stated that “Generally over 75% of coaches in the developmental sport context have several years of experience as competitive athletes in the sport they coach” (p. 522). This experience has proven to be formative for learning to coach; as it has been deemed one of the most valuable means of developing coach knowledge (Erickson et al. 2008; Lemyre et al., 2007; Sage, 1989; Wright et al., 2007). One of the main reasons for this finding is that playing experience provides athletes with “first hand opportunity to observe their own coaches and acquire some informal images and impressions about the coaching occupation from them” (Sage, p. 90).

Prior to becoming a head coach, developmental level coaches “spend approximately four years as assistant coaches” (Trudel & Gilbert, 2006, p. 521). Although not all coaches gain experience as an assistant under a more experienced individual, those who do see great value in it because it is a way to learn how to communicate and teach which goes beyond knowing the game (Wright et al., 2007). Regardless of whether coaching experience is coming from a head coach or an assistant coach position, it is the practicality of learning by doing that makes it such a valuable learning situation (Erickson et al. 2008; Lemyre et al., 2007; Wright et al.).

Interactions with others (e.g., assistant coaches, family, and friends) were ranked the second preferred way of learning by the coaches of the Erickson et al. (2008) study. The value given to the fruitfulness of interacting with others as a means to develop coach knowledge was uniformly high across the developmental level coach learning literature (Lemyre et al., 2007; Wright et al., 2007).

Other informal learning situations reported by developmental coaches are the use of books, videos, and the Internet. Books and videos were most often consulted by beginner coaches for trying to expand their knowledge of tactics, as well as increase their personal library of drills. Experienced coaches tended to use books and videos for more advanced topics such as philosophies, sport psychology, and fitness because they expressed already possessing sport specific knowledge (Lemyre et al., 2007; Wright et al., 2007). The Internet, because of its vast array of coaching websites and its easy access, was reported as being very useful for all levels of coaches. As one experienced coach (15 years coaching) put it, “it is useful for keeping my program fresh” (Wright et al., p. 139). Erickson et al. (2008) reported informal non-personal learning resources (Internet, books, etc...) as the second lowest ranked actual source of coach knowledge, which does not align well with the other findings reported here.

The literature has identified that developmental level coach learning encompasses formal, non-formal, and informal learning situations across the lifespan. However, as mentioned earlier, we believe that teacher coaches have at least some different learning needs compared to the rest of the context to which they belong. This belief in combination with the fact that limited research has examined Canadian high school teacher-coaches has impelled us to address the gap in the literature by seeking to identify and understand how high school teacher-coaches learn to coach, the results of which will be aimed at providing insight into the development of learning activities appropriate for high school teacher-coaches.

Method

Participants

The coaches selected for the first part of the study were Ontario high school teacher-coaches with a minimum of one season experience as the head coach of a high school sport team. Any high school sport (individual or team), at any level (midget, junior, senior) was an acceptable fulfillment of this requirement. The total sample size was 31 high school teacher-coaches (15 female and 16 male) from 17 different high schools. See Appendix A for participant characteristics.

For Part Two, we selected a group of three participants from two separate schools. These six participants were selected based on their responses in their Part One interviews.

Procedure

Our study was divided into two parts. The first part included 31 semi-structured interviews focused on the formal, non-formal, and informal learning situations reported by high school coaches. An interview guide was used, it included questions pertaining to each individual's background coaching/sport experience (e.g., How many years experience do you have as a teacher-coach?); information on how they learned to coach (e.g., Have you taken any formal coach education?); challenges faced while coaching; and ways to make the coach learning process easier.

The second part consisted of two focus groups examining colleague interaction as a learning situation. Developed after Part One was already completed, it was based on the findings in Part One that teacher-coaches were heavily favouring learning to coach via interactions with colleagues. However, we had been unable to fully capture what these interactions looked like, what was being discussed during these interactions, and why they were so heavily fancied as a means of learning to coach. Therefore, the purpose of the focus groups was to further explore the colleague interactions and provide a more in-

depth look at the learning that takes place during these exchanges between colleagues, and to confirm or refute findings from the analyses of the Part One data. A final reason for implementing focus group research was that focus groups “often produce data that are seldom produced through individual interviewing and observation and that result in especially powerful interpretive insights” (Kamberelis & Dimitriadis, 2005, p. 903).

Analysis

Transcripts, totally 448 single spaced pages, were sent to the participants allowing them to revise their responses if they felt the need (member checking) (Schwandt, 2001). Additional data was obtained when the transcriptions were sent back to the researchers.

The analysis process was divided into two parts, each employing Braun and Clarke’s thematic analysis method throughout. The first part of the analysis involved coding the data under three main headings: formal, non-formal and informal learning situations. The second part of the analysis utilized concepts from Jarvis’ (2006) theory of human learning (e.g., biography, competence, expertise). All of the coded data was re-read and sorted into potential themes (e.g., athletic experience before coaching) and relationships between themes and codes were identified (e.g., time and competency). The next phase consisted of reviewing the themes and evaluating whether they appeared to create a coherent pattern without ignoring divergent themes.

The identified themes were then defined and refined until they were ready to use in the interpretation of the data. The collated extracts for each theme were logically organized and prepared for utilization in the write up. Once an extract was selected for the write up, the first researcher checked the transcript from where it came in order to ensure the context and meaning were not being altered.

The focus group conducted in the Part Two of the study followed the same analysis process as the first set of interviews: they were transcribed verbatim (8 pages each), organizationally categorized, and analyzed using Braun and Clarke's (2006) thematic analysis method.

Results

The results section is divided into two parts. We first present the data regarding the learning situations reported by our high school teacher-coach participants. As mentioned earlier, these findings will be presented under the following headings: Formal Learning Situations, Non-formal Learning Situations, and Informal Learning Situations. The focus group results are presented under a separate heading: Colleague Interactions.

Formal Learning Situations

Many coaches (n= 20/31) identified earning a minimum Level 1 from the NCCP: "I have had some NCCP training, I have Theory A and B and I am challenging for Technical Level 1 and 2" (Coach I Steve). NCCP levels were often obtained through the completion of a full semester university coaching course: "When I started out with the minor baseball no I hadn't [taken any formal coach education], but with my human kinetics degree I have Theory 1 and Technical 1" (Coach V Paul).

The coaches who did not receive any formal coach education frequently attributed this to cost: "If it [formal coach education] is paid for I would do it but for the most part it costs a couple hundred dollars" (Coach N Bob). Time was also an inhibiting factor affecting the pursuit of an NCCP level: "No [I do not have any NCCP training] and I should, it is just a time thing" (Coach N Lance).

Coaches with a substantial amount of sport experience in the sport they coached found that the NCCP Levels 1 and 2 courses were more designed for people with very little coaching and playing experience, thus they found the courses unnecessary. Coach N Karen, an ex-varsity athlete, stated:

People who just want to get involved in the community and people who may not have the playing experience or the technical experience it [the NCCP] is a great leveler... I got into it [coaching] without the certification and [when I took the Level One I found it] was a little bit redundant.

In line with the previous statement, the participants who were coaching an unfamiliar sport and had not received any formal coach education pertaining to that sport saw value in the NCCP courses and often expressed a desire to engage in formal coach education: “Had I had the opportunity and the ability to attend more nationally certified courses... that didn’t take away from my already busy schedule that would have benefitted me 100%, no doubt about it” (Coach I Nick).

Non-Formal Learning Situations

Non-formal learning situations were a popular learning tool for some of the coaches of the study. When asked about participation in coaching clinics, coaches frequently responded with positive replies such as:

I was 36 or 37 and I think that that was my first real big real clinic and I think it was too late. If I could say something about that, we should start going through the clinics... as soon as possible (Coach V Joel).

Another coach stated “I like to do different [coaching] courses all of the time depending on what I am coaching” (Coach V Ellen). Coaching clinics, especially when a practical

element was present, were reported as making learning to coach easier as opposed to learning on your own: “It is just easier to have someone tell you this works well... and you remember it better if you do it as opposed to reading it” (Coach V Claire).

Informal Learning Situations

Books and the Internet were commonly indicated as informal resources used by the teacher-coaches to learn about drills and strategies. One participant stated “I use the Internet sometimes to find drills” (Coach N Laura), another coach said “I have a few books, *The Science of Hurdling* by Brent McFarland, it’s the bible for basic skills... I really focused my training according to this book” (Coach N Guy). Very few coaches mentioned DVD’s for learning; however, when called upon they were used for similar reasons as the aforementioned informal resources.

Playing experience was an informal learning situation deemed valuable by the majority of coaches especially for the technical aspect of the game: “For both basketball and soccer, I will pull on drills that I used when I was a player” (Coach I Barb). Player experience was also called upon when developing one’s coaching philosophy: “Somewhere along the way this question was posed to me as a player, so I posed it to my team my first year coaching, ‘Do you want to play for fun or do you want to play to win?’” (Coach I Parker).

Coaching experience, often as an assistant or co-coach, was another informal learning situation recalled by the coaches as valuable in their development: “I coached with one fellow in particular who had been coaching for several years and I learned a lot from him” (Coach I Sarah); and “Well, the good thing was again that I was assistant coach that year under a veteran coach, so I didn’t do a ton on that team except for learn

stuff” (Coach N Laura). When reflecting on past experiences, coaches truly felt that being an assistant coach is one of the best ways to learn how to coach high school sport:

“Breaking in as an assistant under people who know what they are doing is critical and I definitely suggest that” (Coach I Nick). Not only did serving as an assistant coach help develop coaching knowledge, it also played a vital role in the development of confidence in one’s ability to coach. This result was recognized by quotations such as the following:

I felt that this year my experience [as an assistant] was paying off... I was able to point out when we’re not doing something very well, and how we can we fix it...

I was finally able to do that [on my own]. (Coach I Nick)

Coaching experience did not always come from assistantships seeing that many coaches were thrown into situations with little to no experience in the sport they were to coach, one coach even described herself as follows: “I am just a warm body, [because I] am not so much experienced” (Coach V Ellen). Therefore, often coaches had to learn from their mistakes: “I didn’t know enough drills, I should have done more research myself [before the season], and that is my lack of experience. So next year, if I am at the same school I will know more and will start earlier” (Coach N Bob).

The data also show that observation of other coaches was a great way to learn as demonstrated by the following quotations: “I go watch my daughter’s practices, I get great ideas there because obviously they are more experienced coaches” (Coach V Ellen) and “To me the best way I learn was always through watching... watching you pick up ideas and say ‘Oh yeah that’s a good idea’. For me it was: learn by watching” (Coach I Parker).

Interacting with others was reported by all coaches as a means of gaining coach knowledge. High school coaches usually approach their colleagues when looking for new information to help expand their coaching knowledge: “In this school everyone is very collegial, if you have a problem someone will help you and if they can’t they will tell you who can, so it has been excellent that way” (Coach I Sarah). More specific reasons for interacting with others were to gain further technical knowledge and to seek insight for dealing with challenges: “It was a shooting issue and I hadn’t seen it before and this coach had experience with this type of shooting problem and the technique that he gave me really resolved this student’s shooting problem” (Coach N Gerry).

There are three age groups (midget, junior, senior) for Ontario high school athletes which results in at least one teacher-coach per team, amassing, in most schools, a minimum of three coaches per sport per school. The within sport coach interactions were commonly viewed as positive for the development of coach knowledge as well as for the sport program itself:

The best interactions are between the levels of volleyball: senior, junior and midget. So as a senior coach when I would coach the senior teams I was able to provide drills and suggestions to the junior coaches and the midget coaches as to where they should be heading. (Coach I Parker)

Interactions that helped expand coach knowledge were not limited to colleagues. When developing coach knowledge some coaches used family: “Probably came again from my dad coaching, he always wanted us to have fun and enjoy the game rather than win” (Coach N Bob) and others looked for assistance from friends: “I call my friend in university and ask what to do” (Coach V Joan). Some coaches fancied exchanges with

opposing coaches in the league “I’ve been a big believer that there’s nothing that I have that I won’t give to somebody” (Coach V Jim), while others did not interact or had little intention to interact: “The only time I talk to anybody [opposing coaches] is to set up an exhibition game” (Coach I Barb).

Colleague Interactions (Focus Groups)

When the focus group participants discussed the locations of their interactions they reported places such as, “The gym area around here is the place where all of that stuff happens” (Coach V Norm). Though commonly around the gym, information exchanges between colleagues could occur relatively anywhere at school, as suggested by the following sequence of responses:

“[Interactions occur in] hallways, the staff room” (Coach N Jen),

“Classrooms too” (Coach N Laura),

“Could be anywhere [in the school]” (Coach N Gerry).

Often, the exchange of coaching information between colleagues was the result of unplanned discussions: “If I am chatting with another coach he may say ‘How’s the team going?’ And I’ll say ‘We did well with this, but are having trouble with this’ and we kind of naturally exchange advice without ever really asking” (Coach N Gerry). Another participant stated “It’s common to just discuss your team, it does not necessarily mean you are asking specific questions” (Coach N Alison). However, if an issue was identified as requiring relatively immediate attention then teacher-coaches would actually plan to approach another who they believed had valuable information, as represented by the following quotes: “If there is someone that I know who has coached this sport previously and I have a specific problem with that sport then that would make me go to a colleague”

(Coach N Gerry) and “I like to ask people for feedback sometimes, for example: do you think there are things I could be doing better with my team?” (Coach V Norm).

Lack of time was a recurring theme that both shaped colleague interactions and rendered colleague interactions a highly favourable learning opportunity: “It’s all informal, like we don’t have a formal sit down with our coaches because nobody has time for it... now you have to sneak your time in when you can” (Coach V Sandy). Coach V Norm said:

We are all so busy that we don’t have that hour where we sit down as 40-50 people hanging out having lunch. Now it’s like I might pop into the phys ed office once a week and chat about something. So it’s really not big groups because of how busy we are.

Lack of time typically permitted short interactions, “I have never really had a long one [discussion about a coaching issue]” (Coach N Jen); however, if an issue required more time for resolution then the teacher-coaches would find the time to discuss the issue: “When there is a particular issue that is pressing, like when parents get involved with things and they escalate, then discussions will be a little more in depth” (Coach N Laura).

When the participants were discussing the content of their interactions, a number of different themes arose. The coaches who felt they were inexperienced would seek aid with respect to sport specific tactics and techniques: “I approached a colleague once because we kept losing, so I asked what you think we can do, what are some techniques we can use to try and shake off the losses that we have had” (Coach N Alison). Team management or administrative duties were also issues that were commonly discussed

between colleagues as highlighted by the following sequence between Coach N Laura and the researcher:

Coach N Laura: [I seek] general knowledge about managing a team and what coaches have done in the past.

Researcher: What do you mean when you say managing a team?

Coach N Laura: Well there is the whole thing from managing the kids in terms of things like playing time, keeping travel logs, the paperwork... All of the stuff that I do that is separate from the actual practices and games.

All participants used the support of other colleagues when dealing with issues that went beyond knowing the game: "My technical stuff is high enough. I don't really feel like I need to go and get advice for that... I get advice on the mental side, the handling of situations in terms of conflict and things like that" (Coach V Norm). Coach V Norm's colleague, Coach V Sandy, expanded on this thought saying:

I find more and more that anyone can learn x's and o's, but its how you manage the kids, and kids are more and more needy and less and less wanting to have a good work ethic. So it's more us managing their emotions and managing how they work, and that is somewhere where I will need a tip on something.

An overview of the findings indicates that the engagement in different learning opportunities by teacher-coaches is confined by the time consuming properties of the teaching profession. Teacher-coaches understand the importance of formal and non-formal learning situations for learning to coach, and engage in these situations when time permits; however, informal learning situations are the predominant learning situations

used by teacher-coaches because they are often quick, easily accessible, and offer suitable solutions to coaching queries allowing coaches to feel confident in their coach abilities.

Discussion

Conducting this study using Jarvis' (2006) theory of human learning has allowed us to better understand how Ontario high school teacher-coaches learn to coach. It has also allowed us to compare our participants' ways of learning to the learning documented in previous developmental coach learning studies.

Our results show that Ontario high school coaches participate in formal coach education less than most other studied developmental level sport coaches (Lemyre et al., 2007; Wright et al., 2007). It was speculated by Lacroix et al. (2008) that teacher-coaches avoid formal learning situations simply because formal coach education is not a requirement to coach high school sports. This speculation proved true in some cases, as some teacher-coaches were rejecting this opportunity to learn based on the belief that their biographies were equipped with enough knowledge to coach a team. However, teacher-coaches who wanted to participate in formal learning situations but were unable to, often provided the time commitment and the cost as the main barriers; barriers also identified by Misener and Danylchuk (2009) in their study on the perception of the NCCP of 285 coaches. Furthermore, Jarvis (2007) also references time restraints as a barrier brought on by society that prevents people from attempting to acquire expertise.

The NCCP's Level 1 has been found to be very useful for coaches who are inexperienced in the sport they coach. It is only as the levels advance (to Level 2, 3, and 4), however, that the utility of the NCCP is appreciated by coaches with more experienced coaching biographies (Wright et al., 2007). Ontario high school coaches

reported similar views on formal coach education, as those whose biographies consisted of little coaching found the Level 1 course to be very useful for harmonizing feelings of disjuncture, providing drills and other tools for inexperienced teacher-coaches, while more experienced teacher-coaches believed the Level 1 to be too elementary.

Non-formal learning situations have not often been documented as a popular coach learning tool (Erickson et al., 2008; Wright et al., 2007); however, our results show that coaching clinics indeed have great value for coach learning for Ontario teacher-coaches. A number of our participants attributed much of their coach learning to participation in various sport specific coaching clinics and they also bemoaned the dearth of their availability. Clinics were regarded as especially useful when a teacher is preparing to coach a sport with which he/she is unfamiliar. Being unfamiliar with a sport increases the amount of disjuncture experienced by a coach, so in order to return to harmony, and develop competence teacher-coaches are electing to engage in non-formal learning situations. Our participants felt that clinics equipped them with the ability to coach, though not necessarily to coach well, by teaching them the rules, regulations and other aspects of sport that help them deal with known and recurring situations of the sport. Furthermore, clinics provide valued information all the while being short, inexpensive, and hands-on, attractions opposite to the barriers identified by teacher-coaches that are keeping them from engaging in formal coach education.

Our coaches identified using a variety of informal resources as a means of gaining coach knowledge (Internet, books, DVD's), most of which were used for similar reasons by coaches outside of the school setting: trying to harmonize feelings of disjuncture brought on by identifying a need to expand their knowledge of tactics and increase their

personal library of drills (Erickson et al., 2008; Lemyre et al., 2007; Wright et al., 2007). The Internet was the favoured informal resource by our participants' as well as those in the literature because its easy access and its vast array of informative websites allow for the timely development of coaching competency in specific areas of sport. These situations do not, however, offer much towards innovative learning because they do not involve bringing change, renewal, restructuring, and problem reformulation (Jarvis, 2007).

Prior developmental level coach learning studies identified that learning by doing (player experience and coach experience), as the best ways to learn to coach (Erickson et al., 2008; Lemyre et al., 2007; Wright et al., 2007). Gilbert, Côté, and Mallett (2006) noted that the high school coaches in their study benefitted greatly from "accumulating thousands of hours of 'pre-coaching' experience while competing in organized sport as athletes" (p. 72). Our coaches also recognized that being an athlete provided an opportunity to learn how to coach as it equips one's biography with a greater understanding of sport, adds to the development of sport specific knowledge, and provides the opportunity to observe coaches in practice. The learning that occurs from transforming athletic experience into knowledge and/or skills is often innovative, as the experiences and information accumulated while being an athlete are used to develop new outlooks and solutions for challenges faced while coaching.

Coaching experience, as an assistant or a co-coach, has been reported as helping inexperienced coaches learn to coach (Erickson et al., 2008; Lemyre et al., 2007; Wright et al., 2007). Being an assistant coach of a team before being the head coach was regarded as an ideal way to enter the high school coaching world. In instances akin,

coaches with inexperienced coaching biographies learned a variety of practices from veteran coaches through observation and one-on-one communication. Administrative work, drills, strategies, and player management skills were all coaching elements that were learned through assistantship; each of which is necessary to become a competent high school teacher-coach. Most importantly, however, was the fact that inexperienced coaches developed the confidence to coach on their own during their time as assistants. However, gaining assistant coach experience as a new teacher is a limited commodity due to the professional demands placed upon teachers (Lacroix et al., 2008). With respect to teaching, it has been found that inexperienced teachers rely primarily on the practical application of their skills and the use of trial and error to develop expertise (Bell, 1997). Our results are reflective of these findings, as learning through trial and error was identified by our participants as a way of dealing with situations which elicited feelings of disjuncture. Learning via trial and error involves reflection-on-action and holds the potential for renewal and problem reformulation, thus it can potentially be an innovative learning situation leading to the development of expertise (Schön, 1983; Jarvis, 2007).

Some studies have identified the broader aspects of learning to coach through interactions with others (e.g., assistant coaches, friends, family members) (Erickson et al., 2008; Lemyre et al., 2007; Wright et al., 2007) and other studies have focused on very distinct types of interactional learning (e.g., communities of practice) (Culver & Trudel, 2008). Although our analysis did not examine in depth the degree to which the teacher-coaches in this study may or may not have been part of a Community of Practice; it seems clear that coaches who were offered the opportunity to be an assistant coach before becoming a head coach were engaged in legitimate peripheral participation (Lave &

Wenger, 1991). Legitimate peripheral participation is a process whereby “learners inevitably participate in communities of practitioners and that the mastery of knowledge and skills requires newcomers to move toward full participation in the sociocultural practices of a community (Lave & Wenger, p. 29). The difference between the literature and our study is that our results offer rich detail of the intricacies of a specific type of learning interaction: teacher-coach colleague interactions.

Knowledge development and sharing of information are social in nature which partly explains why colleague interactions are fundamental for high school teachers learning to coach (Allee, 2000; Jarvis, 2006). Our participants’ interactions exemplified some properties of a Community of Practice (CoP), as evidenced by the engagement and sustainment of ongoing interactions whereby there was a development and sharing of tools (Wenger, 1998). However, the development of knowledge generally came as a result of continuing conversations throughout daily work activities and based on specific needs, which is more indicative of an Informal Knowledge Network (IKN) (Allee, 2000; Culver & Trudel, 2008).

Communities of practice and IKNs are more commonly identified in the business world than the coaching world. They arise when groups of people address recurring sets of problems together (Culver & Trudel, 2006; Wenger, 1998). In developmental level sport few coaches informally gather to discuss coaching issues with coaches of other teams (Lemyre et al., 2007). Contrarily, the high school setting allows for a lot of interactions between teaching colleagues who coach because they all share the same facilities, and share a joint enterprise (developing student athletes) much like that of a business setting.

It has been documented that teachers are presented with opportunities to learn to teach through discussions with more experienced teachers in their school (Cochran-Smith & Lytle, 1999). Likewise, our results depict that teachers (who coach) are also using these opportunities as a means of learning to coach. When information is passed from teacher-coaches with well developed coaching biographies to those who have less experience maintenance learning and competency are the result because the inexperienced teacher-coaches are being given information with respect to a recurring disjuncture that they can now transform into knowledge and/or skills pertinent to the harmonization of the disjuncture (Jarvis, 2007).

Discussions between colleagues were used to resolve a wide range of coaching queries and issues. Coaches who were looking to change their routine or achieve different results with their team would often direct the interactions toward exchanges of sport specific tactical or technical information. Discussions of this sort were regarded as the fastest and most efficient way to build coaching competency, making them exceptionally appealing due to the time restricting properties of the profession. Issues that required longer and more detailed interactions were those that went beyond knowing the game. For example, team/individual conflict, parental involvement, and behaviour management were all delicate issues that teacher-coaches wished to carefully discuss before testing a solution.

As mentioned, teacher-coaches have the opportunity to continue conversations throughout daily work activities from which they learn to coach because they share the same work environment, the same physical and social space (Jarvis, 2006). Jarvis reminds us that the physical space is “a major constituent factor in all of our learning

experiences since we learn through our senses” (p. 64). When teacher-coaches learn through their conversations with their colleagues they are learning from their experience of the social space in which their coaching practice occurs. However, just because a learning situation is available does not mean that one will choose to engage in it, as any person can reject any opportunity to learn and often does so because he/she does not have time (Jarvis, 2006). The teacher-coaches in this study expressed that lack of time was a constant challenge for them. The reasons colleague interactions are the most popular chosen learning situations are they combat the time restrictions brought on by the society and the teaching profession by succinctly offering information with respect to solving coaching disjunctures; they allow teacher-coaches to choose when to approach a colleague; and, as our teacher-coaches have indicated, teacher-coaches trust that the information they receive from colleagues is useful and valuable information because they share a joint enterprise. It is for these reasons that teacher-coaches have identified learning to coach through colleague interactions as the most viable way to develop coaching competency and are choosing to learn through this situation over other learning situations that may help them become better coaches (e.g., formal coach education).

Conclusion

Teacher-coaches learn to coach through similar situations as other developmental level coaches; however, they are often funneled by the demands of their profession to engage in certain coach learning situations (e.g., colleague interactions and coaching clinics) over others (formal coach education). Because they possess the ability to positively enhance the well being of students it would be beneficial to bring learning resources to them rather than have them seek out learning resources, so as not to further

burden their already busy schedules. If this could occur then teacher-coaches would be more likely to exceed the boundaries of maintenance learning and competency and begin to learn innovatively and to develop expertise.

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Appendix A

High School Teacher Coaches Name Chart

Pseudonym*	H.S. Coaching experience (yrs)	NCCP (highest level)	Active in sport	Coaching before teaching (yrs)
Coach N Lance	5	n/a	Y	No
Coach N Bob	1	n/a	Y	5
Coach N Gerry	4	n/a	Y	2
Coach N Laura	4	n/a	Y	No
Coach N Karen	4	3	Varsity	3
Coach N Guy	2	3	Varsity	5
Coach N Tim	5	n/a	Varsity	5
Coach N Jen	2	n/a	Varsity	No
Coach N Alison	5	1	Y	No
Coach I Greg	6+	n/a	Varsity	yes
Coach I Steve	11	2	Varsity/semi- pro	1
Coach I Bruce	6	3	Y	7
Coach I Parker	10	2	Varsity	4
Coach I Shanna	9	2	Y	9
Coach I Linda	9	1	Varsity	No
Coach I Barb	9	1	Y	1
Coach I Brianne	7	n/a	Y	No
Coach I Brent	10	3	Y	10
Coach I Sue	13	3	Varsity	No
Coach I Nick	12	1	Y	1
Coach I Sarah	9	n/a	Y	No
Coach V Gina	17	n/a	Varsity	1
Coach V Paul	32	3	Y	3
Coach V Sandy	24	3	Varsity	5
Coach V Joan	29	1	Varsity	2
Coach V Claire	29	3	Y	No
Coach V Ellen	17	1	Y	No
Coach V Jim	35	n/a	Varsity	2
Coach V Rod	22	2	Y	8
Coach V Joel	29	France	Y	1
Coach V Norm	20+	3	Y	yes

*Note: Pseudonym letters

N= Novice (1-5 years experience)

I= Intermediate (6-15 years experience)

V= Veteran (16+ years experience)

Article 2

Running Head: High School Teacher-Coach Learning

Three Learning Profiles of High School Teacher-Coaches:

Narrative Accounts

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Abstract

This study identified the lifelong learning situations that contribute to high school teacher-coach learning. Data collection included qualitative interviews with 31 high school teacher-coaches. This research used Jarvis' (2006) theory of human learning as its framework. Jarvis contends that learning occurs when our life experiences transform our biographical repertoires. The analysis led to the creation of three composite narratives; each one describing a different biography or learning profile: (1) The rookie coach had little or no experience coaching or playing sport at a high level before teaching; (2) The varsity athlete coach learned to coach mainly by reflecting on the behaviours of the variety of coaches he/she experienced during his/her athletic tenure; (3) The experienced coach gained coaching experience and knowledge prior to becoming a teacher, often through being an assistant to one or more experienced coaches. Suggestions are made to maximize the learning of teacher-coaches who belong to each profile.

In Canada, access to school sport offers a variety of benefits to its approximately 750,000 student athletes, including: better health and quality of life, psychological well-being, improved academic engagement, and good health habits, amongst other things (The Canadian Sport Policy, 2009; Fraser-Thomas, Côté, & Deakin, 2008). Mere participation does not, however, ensure the attainment of benefits, for instance poor coaching has been strongly linked to negative experiences in sport (Scanlan, Babkes, & Scanlan, 2005; Vernacchia, McGuire, & Cook, 1996). Furthermore, Hansen, Larson, and Dworkin (2003) and Vernacchia, McGuire, and Cook have completed some very important research that has identified the coach as possessing the greatest ability to influence the experiences children have in sport. Therefore, it is evident that high school sport and quality coaching cooperatively possess the ability to enhance the life and well being of students. But who are Canada's approximately 52,000 high school teacher coaches and what do we know about their learning to become coaches?

Unfortunately we know very little about Canadian high school teacher-coaches, as "relatively few studies have examined Canadian high school sport, and even fewer have specifically focused on high school coaches" (Lacroix, Camiré, & Trudel, 2008, p. 25). From the sparse information available on teacher-coaches it has been gathered that, in Ontario, teacher-coaches are expected to enter their profession the first day and perform to the exact same standard as their more experienced colleagues (Bell, 1997); they often coach more than one sport including ones with which they are unfamiliar; coaching is a volunteer act; there is no time allotted for preparation; and they are not required to take any formal coaching education unlike most other sport organizations (Lacroix et al., 2008).

The present study was designed with the intention of helping bridge the gap in the literature by furthering our understanding of Canadian high school teacher-coaches. More specifically, using Jarvis' (2006) theory of human learning as our framework, the purpose of this study was to first uncover who Ontario high school teacher-coaches are and the situations from which they learn to coach.

Human learning

Many learning theorists have developed valuable insights with respect to our understanding of the human learning process (Wertheimer, 1944; Schön, 1983; Vygotsky, 1978). We believe, however, that Jarvis' (2006; 2007) theory of human learning is the most comprehensive theory to date. According to Jarvis (2006), learning is about the changes that occur to the bodies and minds of people, as they, throughout everyday life, experience the worlds in which they live. In order to experience the world, and thus learn, information must be received through any one or any combination of the following six senses: hearing, seeing, smelling, tasting, touching, and feeling (emotions), and then be transformed. The perceived content of an experience can be transformed cognitively, emotively, and/or practically into knowledge and/or skills. When a person cognitively transforms an experience, he/she is changed through thought. In the case of an emotive transformation, the person is changed through feeling; and finally, transformations which occur practically are the result of learning through action. All transformations ultimately end with a changed, more learned person. Thus, as we become more experienced, we live and learn, and become who we are. Therefore, as Jarvis (2006) contends, learning is about becoming. Jarvis has chosen to use the term 'biography' to capture the concept of who we are at any given time. Our biographies are continuously

developed by the transformation of experiences across our lifespan. As such, they are representative of the whole person, not just our knowledge and skills, but also our attitudes, beliefs, and values. And it is the whole person that affects what we learn and how we learn (Jarvis). In essence, our biographies dictate our approach to each learning experience.

The potential to learn begins when our biography is no longer sufficient to automatically cope with our social situation and we become aware of not knowing something. But, as Jarvis argues, learning is a choice, so even though our social situation may offer the potential to learn, it is up to the learner to decide whether he/she will accept the opportunity to learn. When we choose not to learn, we do so in three ways: (1) Not considering the present situation as a learning opportunity, (2) presuming one's biography is adept to cope with the current situation without any transformations, and (3) rejecting the opportunity to learn from a situation that hosts learning potential. In each instance the choice not to learn is the result of the person's biography (prior knowledge, beliefs, values, and/or attitudes) consciously or subconsciously appraising the situation.

About choosing to learn, Jarvis (2006) informs us that we do so either non-reflectively or reflectively. When learning ensues non-reflectively, the individual allows the situation to alter his/her biography without evaluating the perceived sensation(s). Memorization is one type of non-reflective learning. When learning is reflective, the perceived content of the situation is evaluated based on the person's biography, before it is accepted or rejected. Additionally, Jarvis recognizes that "the sensations gathered from our experiences operate towards our learning even though we may not be aware of many of them" (p19). For example, athletic experience may not be identified by a person as

formative for coach learning until he/she experiences a situation as a coach whereby reflecting on past experiences as an athlete can settle the unease of being aware of not knowing. This type of learning is recognized as pre-conscious and/or incidental.

Furthermore, learning can be and often is future directed and intentional, such as when a person recognizes his/her biography is insufficient to cope with a situation and seeks information from a resource (e.g., asks a friend, uses the Internet, takes a course) in order to bridge the gap between his/her biography and the situation.

In summary, Jarvis (2006) identifies human learning to be the product of the cognitive, practical, and/or emotive transformation of sensations into knowledge, skills, attitudes, values, and/or beliefs, which are added to our biography. The overall result of learning is a changed more experienced person. And our biographies, which embody emotive, bodily and cognitive dimensions, dictate what we choose to learn and how we learn it. From this point on, we will be examining the biographies of high school teacher-coaches and identifying the impact that their life experiences have on their learning to coach.

Method

Participants

The participants for this study were 31 Ontario high school teacher-coaches (15 female and 16 male), each amassing a minimum of one season experience as the head coach of a high school sport team. Any OFSAA recognized sport was an acceptable fulfillment of this requirement. The minimum one season of school sport coaching experience was developed to ensure that our teacher-coaches' biographies included the high school coaching process.

The participants were contacted through The Ontario Federation for School Athletic Associations (OFSAA) via email. Once a participant was recruited and an interview was completed we attempted to recruit other participants using a combination of snowball sampling and maximal variation (Miles & Huberman, 1994)(Creswell, 2007). This combination proved to be very valuable because we were directed towards coaches with different biographical repertoires from the previous interviewees (e.g., athletic experience and number of years coaching in high school). The total sample size was 31 high school teacher-coaches from 17 different high schools, 12 of which were urban schools from the National Capital Secondary Schools Athletic Association, and 5 rural schools from the Eastern Ontario Secondary Schools Athletic Association.

Data Collection

Data collection occurred through semi-structured interviews, using an interview guide, in person. The interviews were geared toward understanding the life experiences that contribute to coach learning for high school coaches. The interview guide included questions pertaining to each individual's coaching/sport experience (e.g., How many years of coaching experience did you have before becoming a teacher coach? How many years experience do you have as a teacher coach? And, were you active in sport as a child?); information on how they learned to coach (e.g., How do you prepare for your practices? Have you taken any formal coaching education?); challenges faced while coaching; and ways to make the coaching process easier. The interviews ranged between 30 and 75 minutes in duration.

Data Analysis

The objective of the analysis was to build and organize categories which explained the biographical characteristics of high school coaches. The analysis was deductive, in that the categories were based on concepts from Jarvis' (2006) theory of human learning (e.g., cognitive, emotive and practical transformations, and life experiences).

The analysis began as soon as the first interview was recorded and remained active throughout the collection of all of the data. All of the interviews were transcribed verbatim (448 single-spaced pages). During the transcription process notes were created to identify potential coding schemes relating to our theoretical framework (Braun & Clarke, 2006). Additional data was obtained when the transcriptions were sent back to the participants (member checking) allowing them to revise their responses if they felt the need (Schwandt, 2001). Once the participants approved their transcripts, the transcripts were re-read and coded using mostly deductively developed organizational categories (Maxwell, 2005).

The next phases of analysis employed Braun and Clarke's thematic analysis method. The coded data was re-read and sorted into categories based on potential themes (e.g., athletic experience before coaching, and time restrictions). Relationships between codes, between themes, and between different levels of themes were identified and illustrated using a concept map. The next phase consisted of reviewing the themes and evaluating whether they appeared to create a coherent pattern without ignoring divergent themes. During this phase the data set was re-read in order to code any additional data that may have been overlooked within the themes.

The identified themes were then defined and refined until they were ready to use in the interpretation of the data. Defining themes was focused on identifying what they are and also what they are not. The collated extracts for each theme were logically organized based on shared biographical experiences between participants.

The analysis of the data revealed three coaching profiles to which our high school teacher-coaches belong. The coaching profiles were developed based on recurring biographical experiences that shaped the chosen learning situations of teacher-coaches. The coach profiles are titled: (1) John: The Rookie Coach, (2) Sharon: The Varsity Athlete Coach, and (3) Keith: The Veteran Coach.

We have chosen to condense our interview data into three fictitious narratives, or stories, to represent the profiles. Hinchman and Hinchman (1997) provide a reputable explanation for what is meant by narrative when stating: “Narratives in human science should be defined provisionally as discourses with a clear sequential order that connect events in a meaningful way for a definite audience and thus offer insights about the world and/or people’s experiences in it” (p. xvi). The construction of a narrative by us is simply a method of taking the information our participants tell us and turning it into a new collective story. Richardson (1990) expands on this idea stating that “the collective story [narrative] displays an individual’s story by narrativizing the experiences of the social category to which the individual belongs, rather than by telling a particular individual’s story” (p. 25). These authors’ descriptions of what a narrative is and its utility align with the purpose of our study as well with our framework.

Furthermore, Denison (1996) stated that “Narratives and other forms of representation that cross the borderline into fiction may be best suited to explore the

subjective nature of athletes' experiences." We agree with this notion and feel that it can be extended to the exploration of the subjective nature of coaches' experiences as well. The decision to use narratives as a way of articulating our findings was solidified by the belief that narratives are an optimal way to capture the cognitive, emotive, and practical transformations involved in the high school teacher-coach learning process.

Results

Although we have identified three different types of teacher-coach biographies/profiles, we are not implying that one type of profile is better than the other, nor are we stating that every teacher-coach will fit perfectly into one of the three profiles, as "A narrative is not meant to be an exact record of what happened nor is it a mirror of the world 'out there'" (Riessman, 1993, p. 64). Rather, we have grouped them as such because we feel that this is the best way to identify the social context within which the teacher-coaches have developed, thus providing insight into the development of effective coach learning activities designed to meet the needs of varied teacher-coach biographies.

The following paragraphs provide storied accounts of how high school teachers learn to coach based on one of three coaching profiles to which they belong: (1) John: The Rookie Coach, (2) Sharon: The Varsity Athlete Coach, and (3) Keith: The Veteran Coach. It is important to notice how previous life experiences, the accumulation of knowledge, skills, attitudes, beliefs, values, and emotions, influence the situations from which a high school teacher chooses to learn to coach.

John: The Rookie Coach

It was near the end of the final semester of Teachers College when one of John's professors told his students "During a teaching job interview the principal is likely going

to ask you what you are willing to do for their school on an extracurricular basis. They want to see how you plan to go beyond just being a teacher and add to the life of the school. There are many things you can do: yearbook, band, coach, plays, and things like that, and if you get involved it will increase your chances of receiving a long term contract.”

With fifteen minutes remaining of class, the professor directed the students to discuss the extracurricular activities in which they could see themselves getting involved. John, who had never before thought about getting involved in the extra curricular activities, knew that out of all of the options his professor had listed, coaching would be his top choice. In fact, after listening to Professor Graham’s words, for the first time ever, John pictured himself behind the bench of a group of teenage athletes. The image was not very detailed as he had no idea what sport or what level he wanted to coach, or any other details; he just knew that coaching would be the best way to get involved in extracurriculars.

John’s first teaching job was at St. Mary’s Secondary School and with it came a coaching position. Luckily, John was not to coach alone as he was paired up with a veteran coach, Ted. Nine years prior, when Ted entered the teacher-coach world, he did so with no previous coaching experience, little tactical and technical knowledge of most sports, but an enthusiasm to get involved in school sport, which was exactly John’s situation. Ted, however, did not have the luxury of being paired with a veteran coach.

Feeling insecure about his coaching abilities John asked Ted “What was it like coaching in your first year teaching?”

Ted clutched his chin with his hand and after a short pause to reflect, he responded “It was tough, really tough.”

John felt a pit in his stomach as his insecurity heightened; however, after another short pause Ted continued, “Despite being challenging, coaching made my first year at school a lot more enjoyable. I do wish I had had some sort of a mentor, or was an assistant coach to someone in the beginning of my career like you are doing with me. Something like that would have made coaching a lot easier. But most often there are just not enough coaches for there to be assistants.”

The two men continued to discuss Ted’s first years as a coach, “I was just thrown in as the head coach. It was like, ‘Hey Ted, can you coach volleyball?’ I said, ‘Yea sure’ without an understanding of what I was getting into. I didn’t know much about the game and I wanted to be prepared, so I started looking up drills and strategies before the season to get an idea of the direction I could go. The big shocker was the administrative duties that came with being a high school coach.”

John’s look of complete bafflement pushed Ted to explain: “When I say admin duties I am talking about bus scheduling, money collection, student registration, things like that. There is nothing telling you what you need to do and how to do it, you just have to figure it out on your own. So I want you to take care of that stuff this season.”

John gladly accepted the delegation realizing that it was important to learn this aspect of coaching if he were ever to have his own team.

John wanted to be prepared just as Ted tried to be, so he created a list of goals he planned to fulfill during his first season of coaching: “I really want to take a volleyball coaching clinic,” he thought to himself and wrote this idea down on his goals sheet. Also,

he said to himself, “I’ll make a list of all of the practice plans and drills we use and put them on file so that I have them for next year.” He added a few more things to the list. However, early in the first semester, John was so overwhelmed with prepping for classes and teaching that the coaching ‘to do’ list fell victim to the restraints of time.

Despite not following through with the intended learning opportunities he had documented on his goal sheet, John was taking full advantage of Ted’s experience as he would observe him in practice, and would ask and seek his approval/guidance while developing some of his own coaching behaviours. Although Ted was undoubtedly John’s major number one confidant, John talked coaching with most of the other teacher-coaches at the school. Shelly, the track coach, granted John access to her library of sport specific training books and Brad, the midget girl’s volleyball coach, found a really great one-day, multi-sport coaching clinic that the two planned on taking during the winter break.

One Wednesday, about a month into the semester, Ted said, “I won’t be able to make it to practice tonight; I have a family thing I need to attend.”

“No problem Ted.” After the words left John’s mouth he found himself adrift in a new world of responsibility; “Oh man, I only have two drills prepared for tonight’s practice, that’s like max 15 minutes,” he thought to himself. “But what if I use my classroom prep time to look up some drills on the Internet.” However, he resisted this appeal because his number one priority was teaching and giving a good lesson, so John decided he would just figure out the practice as he went along.

One day before practice, in the middle of the season, Ted found John in the phys ed. office with his elbows planted on the desk, palms pressed into his eye sockets and

fingers gripping his hair! “I remember that position,” Ted said. “It’s the position of a new teacher.” After a little laugh Ted recognized that the stresses of teaching and coaching were getting to John and he turned serious and said, “It gets easier with time. You’ll get used to teaching the same courses and you will have to do less prep for them, which will allow you to further develop your teaching abilities.”

John loosened the grip on his hair, moved his hands off his eyes, and slid his fingers along his cheeks until they rested beneath his chin. Ted took his body language as a request for just a little more encouragement; “And as for coaching, you just have to keep trying things and asking questions and eventually it gets easier and more enjoyable too. It took me a couple of years before I was truly comfortable coaching my own team, but I didn’t let the adversity discourage me, I just learned from it.”

“I know, this week has just been horrendous with interviews, marking, and it’s all brand new stuff I am teaching. Not to mention when you coach it’s like having two teaching jobs, except with the coaching you have no curriculum and no prep,” John lamented.

“Yes,” said Ted. “Teaching is a profession that requires a lot more work than it superficially reveals, especially when you add coaching into the mix. But I have been through it, others have been through it, and more will go through it after you. You just find ways to make it work.”

Sharon: The Varsity Athlete

“I am so excited for this year’s high school basketball season to start,” Sharon thought to herself after reflecting on last year’s team. She projected that a relatively large number of students would be trying out because quite a few of the girls from last year

were eligible to return and she used p.a. announcements to invite everyone else to come. Although she was very excited about the numbers, she dreaded making cuts, as she reminisced...

“I wonder if we made the team, Sharon. Imagine if we got to play on the same team this year?” Ashley said to Sharon as the two friends, along with the rest of the Bantam Girl’s basketball prospects, huddled near the gym doors eagerly awaiting the news of who made this year’s squad.

“Thank you all for coming out for the team this year, everyone worked very hard and this decision was one of the hardest I can remember in all my years of coaching,” the coach said before posting on the gym door a list of who would be playing for him this season.

“There I am, I made it! I have to go tell my mom!” Ashley said before scurrying off to spread the news.

Sharon on the other hand was left off the list. Her eyes welled up, but she managed to hold back her tears until she made it to the car. While trying to catch her breath between tears Sharon said to her mother, “I don’t know why I didn’t make it Mom... he just, he just put a list up... and... and walked away.”

Being cut from the bantam team was only a mild setback in Sharon’s competitive basketball career which began at age 11 and culminated at age 22, when she capped it off with a four year tenure with her university team. At the time, being cut seemed like the worst experience imaginable, but in the long run it helped her develop an understanding of how little things can make a big difference in the way an athlete feels about him/herself. As she further reflected on her years of playing she remembered some of her

coaches using lists to notify players of non-selection, others made telephone calls, but the coaches who made her feel the best about herself, even if she were cut, were the coaches who used individual meetings. Sharon adopted this behaviour and after her fourth and final tryout she informed all of the players through individual meetings if they had made the team or not.

Practice started one day after tryouts had culminated and Sharon knew there would be number of things she would need to teach her team. Her keen eye for identifying what aspects of her teams' game needed work, which came from being immersed in the sport for so long, allowed her to analyze her team's strengths and weaknesses relatively quickly. After only two practices and one game she identified the technical and tactical aspects of the game where her team would need to improve. And so she designed her practices based on the needs of her athletes and began to teach them the game of basketball.

Sharon had played for a number of coaches throughout her years as an athlete and each had his/her own beliefs about how to be successful in basketball. The coach of her senior high school team was all about offense. He only had the team use one defensive tactic, but he taught a number of really good offensive plays. When a team would shut them down, he would get flustered and was unable to adapt and as a result the whole team would just lose focus and begin to turn on each other. Sharon hated it when her team played the blame game and she definitely did not want to replicate these memories. Her university coach, however, was all about defense. This coach taught them to adapt to all types of offense and if they were struggling she would remain composed and discuss

with the team what needed to be done. Her university coach helped her learn the game and having her athletes learn the game was something Sharon valued.

The first month of the season had passed and Sharon's post player was often being outperformed by her counterpart in all aspects of the game and the zone defense, which is designed for a positional mismatch, was not working. "I know if she improved her play then our team would do much better, but I was a point guard when I played ball. I don't know the post position well enough to help improve her game the way we need her to," Sharon thought to herself while reflecting on her team's third straight loss. She started making some calls and was able to hook up with Gina, one of her teammates from university who played post. After a twenty minute catch up conversation about life, Sharon said to Gina, "I need your help with one of my athletes. We are on a big losing streak and it's partly because she, my post player that is, keeps getting out played. Do you have any drills or anything I can use to help her out?"

"Yea of course I do, but they are hard to explain over the phone, maybe I could come to a couple of practices and help her out one on one," Gina proposed.

Gina came in and worked one-on-one with Sharon's post player for a couple of weeks and when she could no longer help out, she provided Sharon with a few drills to continue to help her improve.

Another issue evolved later in the season. Sharon's girls were missing a lot of open shots; shots that she believed should have gone in. She analyzed their mechanics, but found that most had proper form, so she decided it must be a practice thing. To resolve the issue she reflected back on the shooting drills she felt improved her ability as a player. "Sharon, you have to focus more, don't just shoot for the sake of shooting.

Make every shot count whether it's a buzzer beater for the championships or you are breaking the ice on an outdoor game of 21," Sharon's coach had once told her after she had missed eight shots in a row during one practice. With those words in mind, she made an addition to her shooting drills: the players would have to count the number of baskets they sank. Now, while performing the drills, the girls would shout out what number the basket was every time they drained a shot, making sure that every shot would be executed with a purpose rather than just 'going through the motions.'

As the season went on, Sharon's team was practicing better, they were playing harder and their offensive woes were fizzling. The team placed first in the region and received home court advantage for playoffs. The first playoff game they were very shaky, but the girls were able to regain their composure and finish strong to secure the win. Their playoff success continued as they advanced to the semi-finals, and then to the regional finals despite not yet playing their best basketball. Sharon felt she was partly to blame for their inconsistent play because she didn't quite know how to help them deal with the pressure, something she was sure to learn for next season.

Finally the day of the big game arrived. Throughout the first two quarters of the game Sharon's girls fought hard but their opponents lead by nine. "Stay composed Sharon, stay composed," she repeated these words in her head. "If I don't look flustered, then the girls won't be flustered. When Coach Cobbs would lash out at me during big games, it shook my momentum in a bad way; my girls can't afford that right now."

Sharon had never before coached in a big game like this, and although she had played in a similar one, she was realizing it is quite different behind the bench. "Where do I channel my emotions?" she worried. "When I played I would channel them into

effort, now I have to keep them bottled up.” Trying to figure out what to do with her emotions Sharon realized the cause of Coach Cobbs’ outbursts: when the pressure was on, he had lost control over his emotions, although that is still no excuse for throwing chairs or making players cry. She would have to focus on channeling her emotions in to positive things if she wanted to avoid repeating his behaviour.

The fourth quarter, like the previous three, was a battle and the outcome of the game rested in the final seconds. “Time out C.C.S.S.,” the referee announced after a loud whistle blow. Sharon called the time out so she could go over the game’s final play with her team. “I know it’s the championship game and we are down by one, but it’s just like any other game. Let’s just focus on what we have to do, one basket in the next six seconds and we’ve got it.” An air of anxiousness suffocated the huddle, but the girls remained focused as their coach directed their next move. The girls shook their heads in agreement with the play called and culminated the timeout with a loud and proud cheer, “One, Two, Three, Cougars!”

Before the girls fired back on to the court to take their positions Sharon called them in for some final words, “Girls, no matter what happens here, I just want you to know that I am so proud of what you have accomplished together this season. Now go enjoy the moment!” She had just had a flashback to a similar situation during the sophomore year of her varsity basketball career. Her coach told her team the exact same thing and the coach’s words had calmed her down, alleviated any fear of failure, and reminded everyone on her team why they played the game in the first place: to have fun.

Keith: The Veteran Coach

“The junior boys’ soccer season starts in a couple weeks and to this point no one has volunteered to coach. Is there anyone out there who wants to do it or can do it?” Jack, the principal of Elmira High School, asked the entire staff during an after school meeting. When the meeting ended, Keith, one of the teachers at Elmira, approached the principal and said, “I can coach the boys’ soccer team. I coached soccer for two years when I was in high school and university and am familiar with the sport, so if it means the kids will have a team I’ll do it.”

“That’s excellent. I know you just finished coaching the basketball team a few weeks ago, so it’s greatly appreciated that you stepped up,” Jack told Keith.

With two weeks to the season’s start, Keith began preparing for his new coaching position. He flipped his basement upside down trying to find some old soccer coaching manuals that were given to him when he was an assistant coach. After a twenty minute search Keith found the box labeled ‘coaching stuff.’ In it he found the soccer manuals, a couple of books on coaching philosophies, the textbook from his university coaching course, a medal from a tournament his team won, and a team photo. The team photo was of a group of 13 and 14 year old kids that Keith had helped coached the summer after he had graduated from high school.

“That was such a fun year!” Keith thought to himself. “What did we do that year to bring so much enjoyment to the kids? It’s not as if we were the best team and won every game.” He remembered Debbie, the head coach of the team that year, saying, “Whenever they play for one another instead of themselves, they enjoy the game much more regardless of the outcome.” Reflecting on this, he realized that her approach was all about team cohesion and team commitment. One of her tactics for team cohesion was

team building games. Keith remembered Mine Field, the game where the team verbally guided one blind folded player around objects, or ‘mines’, that were scattered on the field.

“Not one kid missed a practice without a legitimate reason, how’d she manage that?” he wondered. “Commitment contracts!” he said aloud. “She made her team sign commitment contracts.” Keith tried to remember the clauses written in the contracts. “If I miss practice I don’t play next game. If I do not have a C+ average or higher in school I do not play until I increase my grades. I will not put down any of my teammates or I will not play: positivity, positivity, positivity.” He mumbled each as he wrote them down. Keith also added a few of his own clauses which he felt lead to the well rounded contract that he was going to use.

Over the next few evenings Keith sat down at his kitchen table and sifted through the literature from his coaching box. He remembered a lot of the things he was reading because when he was coaching as a young adult he relied heavily on these books and manuals to help him develop soccer knowledge. Refreshing himself with the material a little bit at a time each evening, Keith’s confidence in his ability to run the soccer program at Elmira was strengthening.

Midway through the season he recognized that his coaching had become stagnant. “I need to change it up,” he thought. He reflected on the things he was doing at practice and decided that he could add some new drills and work on some different aspects of the game. He hopped on the Internet and took a look at a number of soccer websites. Although he was not always certain that he could have confidence in the content, he

nevertheless found some really great drills and tactics that he printed off and planned to implement in upcoming practices.

One day after school Keith and Paul, who were Elmira's two biology teachers, were discussing their lesson plans for the upcoming unit. Somehow the conversation shifted from biology to coaching and Paul asked Keith, "Do you ever have to deal with parents when you coach, like complaining about their kid's playing time or anything like that?"

"Yea, sometimes it's an issue, like last year with basketball a parent was complaining about her son's playing time," Keith replied.

"What did you do? I don't know what to say when a parent calls me and starts chewing my ear off."

"It's bound to happen no matter what sport or what level of sport you are coaching; I see the same situations in high school sport as I did when I was coaching before teaching. Parents are just looking out for their kids; some do so a little more confrontationally than others. At the start of the year I just ask the kids, 'Do you want to play for fun, or to win?' I explain that playing to win means sometimes equal playing time will be sacrificed. Whatever the team chooses is the philosophy I take into my coaching. That way the decision is in their hands, and I can tell the parent that his/her child was part of that decision."

"That's a good idea Keith; it's a little late this year, but I will do that next year for sure," said Paul.

Keith admitted, "I didn't always do that, I tried a ton of other tactics that I thought would minimize parent issues before I decided that is the one that works best."

At the end of the season, Keith sat down with his team and asked for feedback on what they felt went well and what they felt needed improvement. He strived to become a better coach every year and he valued his athletes' feedback. Keith addressed the team, "I give constructive criticism to you guys all year as your coach, and I need to be able to take it as well, when the timing is right that is, and it's the right time right now. So lay it on me: What do you think could have made the season better?"

Keith loved to coach and knew he would be coaching for many years to come and by documenting the comments and suggestions of his players he would be able to refer back to them before coaching a new team. That way he could keep the good stuff and avoid making the same mistakes twice.

Discussion

Conducting this study using Jarvis' (2006) theory of human learning has allowed us to better understand who Ontario high school teacher-coaches are and how they learn to coach. Based on the identification of biographical characteristics that shape teacher-coach learning, we have developed three narratives to describe the teacher-coach learning process which will be further discussed over the following paragraphs.

Researchers have identified three contexts within which coaches coach: recreational, developmental, and elite contexts (Trudel & Gilbert, 2006). Although high school teacher-coaches belong to the developmental context, the rookie coaches share limited biographical traits with the rest of the context. Unlike the majority of the coaches of the developmental context, prior to becoming coaches the rookie coaches do not have enough experience in sport, whether it is coaching or playing, to reflect upon and practically transform into coaching knowledge and skills before receiving a head coach

position (Erickson, Bruner, MacDonald, & Côté, 2008, Trudel & Gilbert, 2006). As a result, their chosen learning situations are mainly future directed and intentional (Jarvis, 2006). According to Lacroix et al (2008), the lack of experience of some high school teacher-coaches can be attributed to the mentality of using coaching as a means of securing a teaching job, and/or the fact that some teacher-coaches do not decide to coach until late into teachers college (Sage, 1989).

Some of the rookie coaches in our study did, however, acquire assistant coach experience during the first couple of years of their teacher-coach career before head coaching a team. When this was the case, like the coaches of the developmental context, the rookie coaches identified this experience as the favoured way to develop coaching knowledge and skills, and ultimately to build the confidence to run a high school sport team (Erickson et al., Trudel and Gilbert; Lemyre et al. 2007; Wright, et al., 2007). Unfortunately, not all of the rookie coaches had this opportunity as the dearth of teacher-coaches more often than not forces inexperienced teachers to take on head coaching positions from the start of their careers (Lacroix et al.).

Regardless of whether a rookie coach was able to coach along side a more experienced coach, receiving support from colleagues was the most common means for gaining pertinent coaching information. This trend is likely related to the fact that the high school setting is representative of an Informal Knowledge Network (IKN) which is typically composed of “individuals who are familiar with each other and are used for collecting and passing information” (Culver & Trudel, 2008, p. 4). ‘Interactions with others’ is a common learning situation for developmental level coaches (Lemyre et al. 2007; Wright, et al., 2007), as well as high school teacher-coaches and this research has

shown that the high school setting is representative of an IKN for teachers learning to coach.

Future directed and intentional learning for the rookie coaches often ensues with the use of the Internet: seeking coaching information with respect to drills and strategies. This finding is shared with the inexperienced developmental level coaches from the Lemyre et al. (2007) and Wright et al. (2007) studies. The experienced coach participants of the aforementioned studies did not, however, use the Internet for the same purposes as our rookie coaches because they were confident in their tactical and technical knowledge of the game. As such, it is suspected that the use of the Internet for coaches with little experience in the sport they coach is one of the most efficient ways to gain coaching competency (Jarvis, 2006).

The varsity athlete coach's biography is filled with practical experiences from which he/she can choose to learn, a characteristic which is common to most developmental coaches (Trudel and Gilbert, 2006). As a result, these coaches, upon encountering coaching situations in which they are aware of not knowing something, naturally reflect on past athlete experiences to develop the knowledge and/or skills necessary to handle the situation. The act of reflecting on past athlete experiences is a characteristic that is uniform for all previously studied developmental level coaches (Gilbert & Trudel, 2001; Lemyre et al., 2007; Wright et al., 2007). With respect to Schön's (1983) two concepts: reflection-in-action, and reflection-on-action, it is apparent that the varsity athlete engages in both while learning to coach. Our results depict that reflection occurs both during games/practices, and before and after games/practices.

Consequently, varsity athlete coach learning generally ensues pre-consciously and incidentally (Jarvis, 2006).

Being introduced to a number of coaches with varying biographies of their own, the varsity athlete coaches often rely on the emotions, both positive and negative, that were elicited by their former coaches to help shape their coaching styles, philosophies, and the belief about the contribution sport can make to the development of the person. Although learning to coach through athlete experience is well documented in the literature, learning to coach through emotive transformation, as some of our participants have, is a relatively unexamined area of coaching. This discrepancy may be attributed to our theory in use. Jarvis (2009) explains: “Those experiences that are emotionally charged are more likely to be recalled at a later date than others that are more ordinary and everyday. Hence, our biographical memory is likely to be biased in favour of those emotionally charged experiences” (p. 141). Jarvis helps us understand how this learning contributes to the varsity coaches’ biography and coaching practices.

When practical and emotive transformations are unable to provide the varsity athlete coach with the necessary knowledge and/or skills to deal with a situation, the/she frequently seeks information from people whom he/she believes are more competent in the specified area. In instances akin, much like the rookie coach, the varsity athlete coach engages in conscious future directed learning based upon the confidence in another’s knowledge (Jarvis, 2006). All of the teacher-coaches in our study, regardless of the biographical profile to which they belong, engaged in colleague interactions. The varsity athlete coach, however, commonly sought aid outside of the school by contacting ex-teammates, former high performance athletes, and/or ex-coaches. The varsity athlete

coach has built a community of resources whereby he/she can seek information from others in times of disjuncture, and this community has shaped the learning process because it is no longer about how much you know yourself, but knowing who knows what and where to find them. It must be noted that the information any teacher-coach attains from colleagues or any other interaction is not developed into knowledge until it has been implemented in a social situation whereby its process and outcome can be evaluated (Jarvis).

The veteran coach biography, out of all three teacher-coach profiles, shares the most biographical characteristics with the coaches from the developmental context. Prior to the addition of head coach experience to their biographies, the veteran coach and developmental coaches alike, develop coaching knowledge and skills through coaching assistantships and/or co-coaching as teenagers and/or young adults (Trudel & Gilbert, 2006). To expand on this notion, in their review of literature, Gilbert and Trudel (2001) stated that experience and observation of other coaches is often cited as the primary source for coach learning for youth sport coaches. Little discrepancy exists between their findings and ours, as our results show that being involved in the coaching process from a relatively early age, the veteran coaches generally learn the dynamics of coaching (e.g., understanding of sport, philosophies, organization and human behaviour) from the variety of experienced individuals under whom they have coached. Resultantly, when they have become teacher-coaches and are confronted with situations which cause unease, they often reflect on the actions of their informal mentors (coaches they have coached along side) and evaluate whether their actions would be suitable solutions to settle the unease.

This type of learning appears to be common for developmental coaches (Gilbert & Trudel, 2001; Lemyre et al., 2007; Wright et al., 2007).

As the veteran coaches gain head coaching experience, independent of their mentors, rather than reflecting on the behaviours and actions of others, they begin to reflect on their own behaviours and actions as a means of learning; thus, like the varsity coaches, they too learn from reflection-in-action and on-action (Schön, 1983).

Coaching issues such as parental concerns and player commitment exist in most developmental level sport settings (Gilbert, Gilbert, and Trudel, 2001 a; 2001 b) and high school sport is no different. Just as with the participants of the Gilbert et al. study, the veteran coaches, in some instances, in order to solve a coaching issue use solutions they have seen before; while other times (e.g., if an issue was unsuccessfully resolved using a previous tactic or if a new issue arose) they develop their own strategies, going beyond competency, towards expertise.

Once again, by the time they reach the high school setting the veteran coaches' biographies' are equipped with a variety of coach learning experiences upon which they can reflect; however, they too will experience situations whereby their biographies are insufficiently capable of coping without the development of new knowledge. In such a case, the veteran coach will most often seek out information from a variety of informal resources (e.g., Internet, approaching coach colleagues) and transform it into knowledge, thus learning by means of cognitive transformations. Some of the coaches belonging to our veteran coach profile do learn from formal and non-formal learning situations; however, their participation in each is limited which can be attributed to the busy lives

they lead, as well as their confidence in others' abilities to help them with coaching challenges.

Conclusion

As Jarvis (2006) points out, it is the accumulation of experiences across our lifespan that shape who we are and how we learn. We are all unique beings and as a result no two humans experience any given social situation in the exact same way. Some shared life experiences/biographical traits do, however, influence why we choose certain learning situations over others when learning and becoming. Regardless of the person's biography before becoming a teacher-coach, situations eliciting feelings of unease will inevitably present themselves; however, the situation from which he/she will choose to learn (in order to settle the unease) is based on the individual's biography. Before becoming a teacher-coach, having little to no coaching experience, having a long competitive athletic career, or having plenty of coaching experience are three main biographical characteristics that influence the learning situations chosen by teachers who are becoming high school coaches. From our findings, we believe that it would be in the best interest of future teacher-coaches to offer them learning opportunities that are tailored to the profiles to which they belong.

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General discussion and conclusion

The overall objective of this research project was to identify and understand how high school teacher-coaches learn to coach. In order to achieve our objective we took two different approaches to the analysis of our data and presented our findings using two articles: a traditional interpretive article and a narrative article.

A dearth of research on high school coaches has been identified by Lacroix and colleagues (2008), as a result we chose to carry out this study with the intent of beginning to bridge this gap. Because there was a belief that teach-coaches share some unique learning opportunities separate from the context to which they belong (the developmental context), the traditional interpretive article was used to compare our results to the literature on developmental coach learning. The narrative article was designed to provide more information regarding the biographical traits of high school teacher coaches that influence their chosen learning situations. Our final goal was to combine our results and, if appropriate, discuss insights that will contribute to the development of learning activities appropriate for high school teacher-coaches.

The methodological procedure was the same for both articles, data collection included 31 semi-structured interviews and two focus groups: this format shared many similarities with previous studies examining developmental level coach learning (Erickson et al., 2008; Wright et al., 2007). In order to minimize the limitations and maximize the trustworthiness of our findings we engaged purposeful selection, ensured confidentiality via informed consent, and used peer debriefing techniques.

Limitations are inherent in all types of research, with this in mind we attempted to minimize our limitations by maximizing the diversity of our sample and by using two

forms of qualitative data collection. We recruited 31 participants from 17 different schools which accounted for a diverse sample; however, apart from the 12 participants who were recruited via a combination of snowball sampling and maximal variation (Miles & Huberman, 1994)(Creswell, 2007), our recruitment procedure relied on teacher-coaches responding to us and as a result we were not able to fully maximize biographical variability. We recognize that the teacher-coaches who received our recruitment email but who chose not to respond to the email and not to participate in the study may have biographical traits that differ from the coaches who did participate which could in turn have affected their reported coach learning.

Purposeful selection was exercised by virtue of maximizing the diversity of the sample, as we posed the following questions about our sample's characteristics: (1) Is there variation in the number of years experience as a teacher-coach? (2) Is there variation in the amount of coaching experience before becoming a high school coach? (3) Have the teacher-coaches of the study participated in different levels/types of sport? (4) Do the coaches of the study coach different high school sports? (5) Are men and women coaches well represented? (6) Are the coaches coming from a variety of schools? The result of posing these questions was rich diversified data. The focus groups, which were conducted after the interviews had been completed and a first analysis had culminated, were used to further explore how teacher-coaches learn through interactions with colleagues, as well as to confirm or refute any of the findings from the interview analyses.

Ensuring confidentiality and obtaining informed consent was carried out by informing each participant of the personal, practical, and intellectual goals of the

proposed study and how he/she would be contributing to the fulfillment of these goals in both the proposal email and during the pre-interview introduction. Furthermore, during the pre-interview introduction, participants were assured anonymity, as we articulated that pseudonyms would be used in the write up, essentially making their contribution to the study untraceable. The overall goal of confidentiality and informed consent was to make the teacher-coaches comfortable in being honest in their responses.

Peer debriefing is a procedure whereby “a field-worker confides in trusted and knowledgeable colleagues and uses them as a sounding board for one or more purposes” (Schwandt, p. 188, 2001). Schwandt identified some of the purposes of peer debriefing stating, “it can involve sharing ideas about procedures and logistics in the field ... it can also involve sharing one’s evolving attempts at describing and analyzing qualitative data to achieve some kind of consensual validation” (p. 188). The peers that were involved in my research process were my supervisor (Dr. Diane Culver), my two committee members (Dr. Penny Werthner and Dr. Pierre Trudel), and three PhD students (Martin Camiré, Lauren Capstick, and Kyle Paquette). All peers were familiar with Jarvis’ theory of human learning and were currently conducting research in the coaching domain. Debriefing included weekly discussions about the analysis process, the use of Jarvis’ theory, and other topics that are pertinent to my research. The guidance provided by my veteran, academically recognized, researcher peers resulted in the positive development of myself as a researcher and ultimately strengthened the overall legitimacy of my findings.

Our results identified three coaching profiles into which our participants fit: the rookie coach, the varsity athlete coach, and the experienced coach. These profiles were

developed based on shared biographical traits between participants which allowed us to identify what types of coach learning situations and resources are and/or are not being used by teacher-coaches. It was found that teacher-coaches learn to coach through formal, non-formal, informal learning situations and many of the reported situations are similar to the rest of developmental context. It is important to note, however, that the teacher-coaches who belong to the three different profiles experience different coaching needs and thus are directed towards different learning situations.

In 1999, the Education Quality Act of 1997 was implemented resulting in a reduction of class preparation time; in retaliation, 75% of Ontario public high schools reduced their extracurricular activities as teachers were reluctant to dedicate time to them (Sarson, 2005). Glassford and Salintri (2007) added to this finding when they identified the average teacher working close to 48.7 hours per week, concluding that it seems unlikely that teachers are finding time to attend formal coaching education.

The reduction in preparation time in combination with the increased workload for teachers has heavily influenced the learning situations chosen by teacher-coaches. Both teaching and coaching responsibilities are providing teacher-coaches with an overload of disjunctural sensations. With the teaching role taking priority, teacher-coaches are more likely to emphasize becoming expert teachers and remain competent coaches. Most teacher-coaches are simply looking for the quickest and most efficient way to develop into a competent coach and are avoiding the investment of time and the necessary resources to become an expert coach. The exception might be the experienced teachers who coach and who are comfortable with their teaching role and can seek to move beyond competency towards expertise.

Formal coaching education was recognized as an important coach learning resource by most teachers; however, the time commitment and the cost make it difficult for those who had not obtained any certifications prior to teaching to become certified. The participants who were certified often obtained their certification through a semester long coaching course in university and most rejected the opportunity to continue passing levels once they began teaching. The NCCP has developed high school teacher-coach specific learning tools for Fundamental Movement Skills (FMS) and Competition Introduction. The FMS tool which was originally designed to teach current and future recreation and sport leaders how to analyze and improve a child's movement pattern along a development continuum, has now been modified for easy adaptation into a secondary school senior physical education or leadership curriculum (Coaching Association of Canada, 2008). Also, there is a new abbreviated Competition Introduction for teachers. With this in mind, we believe that the NCCP courses that have been modified for high school teacher-coaches should be delivered to all prospective secondary school teachers while they are in teachers college. This would begin the process of developing coaching competency for prospective teachers who have inexperienced coaching biographies, as they would be provided with at least the basic information on how to coach high school sports teams.

Some studies have grazed the surface of the value developmental level coaches attribute to non-formal learning situations; however, the utility of coaching clinics remains a sparsely documented area in the literature. In this study we found that clinics are important learning resources for teacher-coaches because they provided practical learning opportunities and were an efficient and economical resource for learning to

coach. This especially reigns true when teacher coaches are coaching sports with which they are unfamiliar, which is not an uncommon situation (Lacroix et al., 2008).

The coaches belonging to the varsity athlete coach profile predominantly coached the sport that they played during their competitive years, which meant they seldom experienced feelings of disjuncture inflicted from coaching an unfamiliar sport. Coaches belonging to the rookie coach and the experienced coach profiles, however, were more likely to coach sports with which they were unfamiliar, resulting in feelings of disjuncture (Jarvis, 2006). When this was the case, a quick scan of Internet websites and/or a brief interaction with a colleague would not suffice for seasonal preparation and these coaches turned to coaching clinics. The reason being, coaching clinics were a relatively quick and efficient resource to help develop coaching competency, returning them to harmony (Jarvis, 2007).

Informal learning situations were the most widely used resources for teacher-coach learning because they were the best answer to the time restraints of the profession. The easily accessible Internet, which offers a wide range of coaching websites filled with general and/or sport specific information, was used by the coaches belonging to the rookie coach profile who were looking to develop knowledge by adding sport specific tactics and drills to their biographies. Occasionally, the coaches of the experienced coach profile would use the Internet for the same reasons as the rookie coaches, but mostly in times when they were looking to add something new to their already developed coaching repertoire.

Books are another informal resource used by these coaches for the same purpose as the Internet; however, their use is less common for reasons undiscovered. The coaches

of the varsity athlete profile mostly did not mention using informal resources such as books and the Internet while learning to coach in schools, generally due to the fact that they believed their coaching biographies were competent for the coaching endeavour at hand.

Athletic experience was the best way of learning to coach for the coaches of the varsity athlete profile. Not only did their athletic experience provide them with sufficient tactic and technical knowledge to coach a team, it also provided them with the ability to engage in innovative learning practices whereby they could develop new drills, tactics, and practice plans, and test and evaluate them in the sport setting.

Wright et al. (2007) and Erickson et al. (2008) highlighted that being an assistant coach was a key component of coach development. These findings were shared with our participants who belonged to the rookie coach and experienced coach profiles. Rather than pulling from athletic experiences like our varsity athlete coach, they called upon coaching experience (often as an assistant) as a main situation from which they learned to coach. Assistant coach experience was valuable for the coaches of the rookie and veteran coach profiles because they had the opportunity to resolve coaching disjunctures with the aid of a coach who possessed a more experienced coaching biography. Learning the game from their informal coach mentors, whether it occurred before becoming a teacher or afterwards, increased their knowledge of the sport and their ability to coach, but most importantly it developed a confidence in their ability to coach.

With respect to teaching, Ontario school boards have been conducting mentoring programs that create an environment that supports job experiential learning, and give much needed guidance to inexperienced teachers facilitating the effective integration of

teachers into their work environment (Glassford & Salinitri, 2007). Our inexperienced teacher-coaches identified learning as an assistant coach as the best way to be integrated into the high school coaching setting. Therefore, we believe that an informal mentor program could be developed for coaching whereby experienced coaches take on inexperienced coaches as assistants and provide them with experiential learning opportunities and guidance; much like what is being done for teaching.

Interacting with colleagues was an informal learning situation considered by all teacher-coaches as extremely valuable for coach learning. These interactions included the exchange of coaching information (drills and strategies, as well as administrative procedures), developing solutions for challenges that went beyond knowing the game (e.g., behavioural and parental issues), and showing genuine interest in how each others' teams were doing. This type of camaraderie in the developmental level coaching world appears to be unique to teacher-coaches and the high school environment; that said, we believe that teacher-coaches could take advantage of their interactions and camaraderie by hosting organized and scheduled coach meetings. These meetings could include discussions about administrative duties, the current and upcoming sport seasons, exchanges of information and coach learning resources, and a question and answer period. That way information on coaching could be exchanged between a larger number of colleagues in a timely manner, which would help contribute to the development of competent high school teacher-coaches. It would also be a way to 'mentor' new coaches in schools where there simply are not enough coaches to have new teacher-coaches start as assistants. Not only would these meetings offer the potential to develop coaching competency, but communal discussions would also hold the potential for innovative

learning to occur which would push development of coaching expertise in high school sport.

Concerning teacher-coach learning, it appears that, as Jarvis (2007) contends, it can occur with “Every opportunity made available by any social institution for, and every process by which, an individual can acquire knowledge, skills, attitudes, values, emotions, beliefs and senses within global society” (p. 99). Teacher-coaches are taking advantage of a number of formal, non-formal, and informal coach learning situations; however, the time restraints of their occupation are restricting the quest for coaching expertise and limiting them to simply strive for competency. Although there is nothing wrong with developing competency, we believe that tailoring the resources which teacher-coaches have identified using or wanting to use would be a way to help their coaching abilities improve, ultimately pushing for the maximization of the benefits of high school sport for all members involved.

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Appendix A

Table 1. Data Collection Timeline

Part	Participants	Data Collection	Time
One	31 teacher-coaches	Semi-structured interviews	May 2008 - October 2009
Two	1. Three teacher-coaches from school 1.	Focus group	December 2009
	2. Three teacher-coaches from school 2.	Focus group	December 2009

Appendix B

High School Teacher Coaches Name Chart

Pseudonym*	H.S. Coaching experience (yrs)	NCCP (highest level)	Active in sport	Coaching before teaching (yrs)
Coach I Bruce	6	3	Y	7
Coach I Parker	10	2	Varsity	4
Coach V Sandy	24	3	Varsity	5
Coach I Brianne	7	n/a	Y	No
Coach V Paul	32	3	Y	3
Coach I Nick	12	1	Y	1
Coach I Brent	10	3	Y	10
Coach V Rod	22	2	Y	8
Coach I Steve	11	2	Varsity/semi- pro	1
Coach I Greg	6+	n/a	Varsity	yes
Coach V Joel	29	France	Y	1
Coach N Lance	5	n/a	Y	No
Coach N Bob	1	n/a	Y	5
Coach V Claire	29	3	Y	No
Coach I Linda	9	1	Varsity	No
Coach N Gerry	4	n/a	Y	2
Coach N Laura	4	n/a	Y	No
Coach V Ellen	17	1	Y	No
Coach V Jim	35	n/a	Varsity	2
Coach N Karen	4	3	Varsity	3
Coach I Barb	9	1	Y	1
Coach V Gina	17	n/a	Varsity	1
Coach N Guy	2	3	Varsity	5
Coach I Sarah	9	n/a	Y	No
Coach V Joan	29	1	Varsity	2
Coach I Shanna	18	2	Y	9
Coach N Tim	5	n/a	Varsity	5
Coach I Sue	13	3	Varsity	No
Coach N Jen	2	n/a	Varsity	No
Coach N Alison	5	1	Y	No
Coach V Norm	20+	3	Y	yes

*Note: Pseudonym letters

- N= Novice (1-5 years experience)
- I= Intermediate (6-15 years experience)
- V= Veteran (16+ years experience)

Appendix C

Interview Guide OFSAA

Introduction

Researcher introduction; project introduction; consent form.

As specified in the consent form we are interested in clarifying the actual, relative importance and dynamics of different learning situations for high school coaches in Ontario.

1. How many years experience do you have as a coach?
2. In what situation did you start to coach?
3. How did you get the job as coach the first year? In a school?
 - a. If elsewhere....
 - i. How many years experience did you have as a coach before first doing so in a school? In what role? (Head coach, assistant?)
4. Were you active in sports before becoming a coach?
 - a. What sport(s)? The most important and how many years, at what level?
5. From where does your interest in sport come?
 - a. What inspired this interest?
6. From where does your interest in coaching come?
 - a. What inspired this interest?
7. Before being a coach, did you follow any coach training?
 - a. Nature: number of hours; provided by whom? (NCCP, association, etc.)
8. During your years as a coach have you followed any coach training?
 - a. Nature: number of hours; provided by whom? (NCCP, association, etc.)
9. What is your opinion of these training courses?
 - a. Did you learn a lot?
 - b. Was the content useful for coaching your teams?
 - i. Examples.
 - c. Have you kept in contact with the people who took the course at the same time as you did in order to exchange about your coaching problems?
 - d. Do you intend to follow further coach training?
 - i. Why?
10. Do you believe sport contributes to the global development of the person, contributing to a better citizen and the acquisition of good values?
 - a. How can a coach contribute to this?
 - b. During coaching courses you spoke of technique and tactics and how to teach these but has anyone ever spoken about how to teach athletes good values?
11. Do you intend to keep coaching?
 - a. For how long?
 - b. At what level?

c. Why?

EXPERIENCE: from the first year to the present...

As a coach in schools you have lived different experiences and challenges. Each of these experiences has contributed in one way or another to your development as a coach of school athletes. I would like you to think of your experience as a coach through the years as if you wished to write a book. Each significant experience could be a chapter in this book. You could give a name to each chapter to illustrate what you experienced with each instance. I will ask you questions to help you write each chapter. The questions will relate to what you experienced, the people with whom you interacted, and the nature of the problems faced...

12. In your first year, did you face a particular problem?
 - a. What was the problem?
 - b. What did you do?
 - c. Did you have other problems that you can remember?
13. You gave me an example (or two examples...) of a problem you faced. In this situation, in general, what was your approach to solving the problem?
 - a. Go back to your previous experiences?
 - i. As a player?
 - ii. As a coach?
 1. Training (for your work, for coaches)?
 - b. Invent a solution?
 - c. Consult
 - i. Books (bought or from courses),
 - ii. Internet,
 - iii. Watching sport on T.V.?
 - d. Consult an assistant?
 - e. Consult a technical director supplied by an association or a supervisor in the school?
 - f. Consult a member of your family?
 - g. Consult work colleagues, friends, players' parents?
 - h. Consult other coaches? (ex-coach or other coach in the same league)
 - i. Observe other coaches to 'steal' their way of doing certain things?
14. During or after the season, did you engage in a critical reflection of your coaching work?
 - a. Alone or with another person?
 - b. Could you provide an example of what type of thing you might have reflected on?
15. Are there a lot of interactions with the coaches of other teams in your school?
 - a. On what do these interactions focus? (exchanges about coaching or polite conversations)
16. Are there a lot of interactions with the coaches of other teams in your league?
 - a. On what do these interactions focus? (exchanges about coaching or polite conversations)

17. Do you have other obligations that conflict with your role as a coach? (work, family...)
18. What was your philosophy as a coach during the first years?
 - a. Winning, playing for fun...
 - b. Has your philosophy evolved over the years?
19. During training sessions were you alone managing the sessions?

If not...

 - a. What was the role of each person?
 - b. Were there discussions before, during, and/or after the session between the different people involved?
 - c. Do you use books to prepare your practice sessions? Books (bought, loaned, Internet) or books from coaching courses?
20. During competitions or matches were you alone coaching the athletes?

If not...

 - a. What was the role of each person?
 - b. Were there discussions before, during, and/or after the competition/match between the different people involved?

For the second, third.... year go over the same questions, asking if there were changes.

In retrospect,

21. Would it have been possible to better optimize your learning?
 - a. How?
 - i. Large-scale coach education programs?
 - ii. Coaching clinics?
 - iii. Formal mentoring?
 - iv. Books, videos/DVDs?
 - v. Experiences related to sport, family, work?
 - vi. Face-to-face interactions with other coaches?
 - vii. Websites,
 1. Web sites with information?
 2. Web sites to communicate with others?
 3. e-learning?
 - b. Which of these situations do you see as most viable?
 - c. Given the opportunity, would you participate in coaches' meetings focused on learning once or twice a month? Do you think other coaches would be interested?

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University of Ottawa Health Services Family Health Team

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