

Designing, implementing, assessing, and sustaining sport coach communities of practice

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Abstract

The purpose of this doctoral dissertation was twofold: (a) to explore how communities of practice (CoPs) can be designed, implemented, assessed, and sustained in sport settings, and (b) to examine the value that is created by participating in a community of practice using Wenger, Trayner, and De Laat's (2011) value creation framework. Two studies were conducted. In Study One, a sport coach CoP was collaboratively designed, implemented, and assessed in a youth soccer organisation. Data generation included two individual interviews with each co-researcher, observations from CoP gatherings, and communications via an online discussion platform. Findings indicated that the co-researchers created value within each of the five cycles of value creation outlined in Wenger and colleagues' framework. The co-researchers created value that was personally relevant to their coaching needs, which led to an increase in perceived coaching abilities. The co-researchers also gained new perspectives, such as the importance of social learning, and a broader view of athlete development. Study Two examined the value that was created in five CoPs nested in the university sport setting and how they were sustained. One interview was conducted with each participant (10 coaches and two administrators). The findings revealed that the coaches created value in each of the five cycles of the value creation framework. They learned a variety of strategies, some of which they implemented in their coaching practice. As a result, the coaches noticed an improvement in their coaching abilities and their athletes' outcomes. The coaches also gained new perspectives, and reframed their views concerning their personal development and that of their athletes. For example, the coaches realised the importance of focusing on their own well-being. They also realised the importance of learning through social interactions, and developed a broader view of athlete development. The findings from both Study One and Study Two illustrate that CoPs in sport settings are

practical and pragmatic, and that they have a positive impact on coaches' development and on their coaching practices.

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Introduction

Scholarly works focusing on sport coaching have increased over the past decade (Rangeon, Gilbert, & Bruner, 2012), and researchers have dedicated a significant amount of time and effort to better understand the complex phenomenon of coach learning (e.g., Nelson, Cushion, & Potrac, 2006; Rynne, Mallett, & Tinning, 2010). Within the coach learning literature, researchers have found that coaches learn through a number of situations, including mentorship (e.g., Wilson, Bloom, & Harvey, 2010), observation (e.g., Carter & Bloom, 2009), and engaging in a reflective process (e.g., Werthner & Trudel, 2006). Typically, sport systems tend to place considerable emphasis on learning within coach education programmes in an attempt to professionalize the position of the sport coach. In addition, sport systems must ensure that coaches acquire a minimum standard of competency (ICCE, 2012). However, one must consider the fact that coaches spend much of their time actually coaching when compared to the quantity of time spent in coaching certification programmes (Gilbert, Lichktenwaldt, Gilbert, Zelezny, & Côté, 2009). Therefore, it is not surprising that they highly value these experiences, and often identify them as crucial to their development (Jones, Armour, & Potrac, 2004). In fact, scholarship that focuses on coach learning is filled with examples of how social situations are integral to coaches' ongoing development (e.g., Jones, Harris, & Miles, 2009; Werthner & Trudel, 2006). Coaches frequently interact with others (e.g., other coaches or mentors) when searching for solutions to coaching issues (Gilbert & Trudel, 2001, 2006), and greatly value interacting with these individuals (Gilbert et al., 2009). One commonality between the various learning situations that take place outside of coach education programmes appears to be that coaches are able to focus on their individual learning needs and solutions to real-life coaching issues. Whereas, within coach education programmes, coaches tend to receive a plethora of

information that is often decontextualized from their practice (Lemyre, Trudel, & Durand-Bush, 2007), and are presented with made-up scenarios designed to fit the learning needs of a variety of coaches with a one-size-fits-all approach (Trudel, Gilbert, & Werthner, 2010). In an effort to address this dilemma and provide coaches with both practical and individualized learning situations, researchers have begun to explore how the constructivist approach might be incorporated into coach education programmes (e.g., Werthner & Trudel, 2006). Continuous construction and re-construction of knowledge through ongoing engagement with the world and others within it is the underpinning philosophy of the constructivist approach, which has recently been suggested as an appropriate approach for exploring coach development (Armour, 2010; Trudel, Culver, & Werthner, 2013). This approach, however, is difficult to implement considering the many factors that come into play (i.e., coaches' learning preferences, coaches' prior knowledge, facilitators' methods of facilitation, etc.).

In an attempt to address some of the challenges practitioners may face while implementing a constructivist approach to coach learning, Trudel and colleagues (2013) provided coach development administrators (CDAs) with a number of points to consider when designing coach education programmes (e.g., carefully “select the quantity of the material of teaching and the assessment format”, “select the appropriate ‘messengers’”, and provide “adequate information to situate the material of teaching”; p. 381). However, to address each of Trudel and colleagues' suggestions would require considerable time, energy, and skill. For instance, Paquette, Hussain, Trudel, and Camiré (2014) examined a sport federation's attempt to implement constructivist principles during the restructuring of a coach education programme. The authors highlighted the inclination of the constructivist approach to emphasize coaches' biographies, representation of learning, and reflection throughout their engagement in the

programme. Nevertheless, amongst the difficulties involved with employing constructivist principles, the authors discussed the potential resistance and disconnect of those involved; something that can result when participants do not fully subscribe to constructivist principles. In particular, because the underlying principles of the constructivist approach differ greatly from those of the traditional education setting (and due to participants' previous experiences within the latter), many learners expect instructors to inform them of the "right" way to coach. Although the study presented promising findings, along with four specific suggestions for CDAs in their attempt to implement constructivist principles in coach education programmes, the fact that a small number of coaches ($n=4$) were involved in the study brings into question the applicability of these principles within a larger scale programme. Considering the challenges associated with adopting this approach, Trudel et al. suggested creating opportunities for coaches to interact with others outside of structured programmes.

One way to cultivate and provide ongoing learning opportunities that are constructivist in nature might be through implementing communities of practice (CoPs). Although there is initial support for the use of CoPs within sport (e.g., Culver & Trudel, 2006; Culver, Trudel, & Werthner, 2009), the concept remains largely underexplored within this field. Therefore, the purpose of the present doctoral dissertation was twofold: (a) to explore how communities of practice can be designed, implemented, assessed, and sustained in sport settings, and (b) to examine the value that is created by participating in a community of practice using Wenger, Trayner, and De Laat's (2011) value creation framework.

Conceptual Framework

The underlying principles of communities of practice lie in theories of social learning. Therefore, the following section will include a glimpse into the social aspects of learning, the

concept of communities of practice, literature surrounding communities of practice, critiques of the concept, the value creation framework, and finally, relevant personal experience.

Social aspects of learning. The social aspects of learning have been of interest to a number of theorists within the past century (e.g., Bruner, 1990; Dewey, 1938; Polanyi, 1962; Vygotsky, 1978) and have shaped the way some view learning.

According to Jarvis (2006), Dewey was “one of the earliest twentieth-century philosophers of education to place emphasis on the notion of experience” (p. 70). He argued that education must be based on experience. However, his main focus was on certain forms of experience that took place in within bounded system of educational settings. Jarvis (2006) argued that this view is extremely limited, and that Dewey does “not distinguish clearly between education and learning in his assertion that experience changes the objective conditions under which the experiences are had. On the contrary, it is the learning outcomes that actually influence the objective conditions of future experiences (Jarvis, 2006).

Later, Vygotsky looked at the role that culture plays in the development in individuals. Cole and Scribner (1978) suggested that Vygotsky was “the first modern psychologist to suggest the mechanisms by which culture becomes a part of each person’s nature” (p. 6). Vygotsky stated: “The most significant moment in the course of intellectual development... occurs when speech and practical activity, two previously completely independent lines of development, converge” (1978, p. 24). In order to master their own behaviour (i.e., learn and develop), they must first master their external surroundings (Vygotsky). In other words, he believed that people develop through interactions between their speech (internal processes) and the use of signs and tools (productions of society). Therefore, people learn and grow through their interactions with others and society, and that this learning leads to the development of cognitive processes.

Later, Lave and Wenger (1991) took part in the reformulation of the traditional concept of learning, shifting to the belief that learning occurs through social situations and ‘coparticipation’ with others. The theory of situated learning suggests that a learner gains skills and expertise by engaging in social situations rather than simply acquiring abstract knowledge and attempting to reapply it in future contexts (Lave & Wenger). The theory places emphasis on a “comprehensive understanding involving the whole person rather than ‘receiving’ a body of factual knowledge about the world; on activity in and with the world; and on the view that agent, activity, and the world mutually constitute each other” (Lave & Wenger, 1991, p. 33). Accordingly, learning and knowledge cannot be de-contextualised; the key to becoming a knowledgeable practitioner is ongoing engagement in social situations where one can learn and immediately apply knowledge.

Communities of practice: The concept. Communities of practice are a setting in which individuals can engage in these types of socially constructed learning situations. The CoP developed out of Lave’s (1982) work on apprenticeship, where Lave studied tailors in Liberia (Larocque, 2006). From this, Lave and Wenger (1991) turned their attention towards legitimate peripheral participation, and proposed that people learn and develop knowledge and skills by interacting with expert performers and by participating in CoPs. Wenger (1998) subsequently played a key role in the development of the CoP concept by advancing his earlier work with Lave. Wenger, McDermott, and Snyder (2002) then created a definition for the term communities of practice: “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (p. 4). Within the community of practice framework, Wenger (1998) argued that learning is best viewed as participating in social situations, where people learn by negotiating

meaning with others and with their practice. While members participate in a CoP, their interactions are influenced by: (a) mutual engagement, (b) joint enterprise, and (c) shared repertoire. *Mutual engagement* reflects the idea that practice does not simply exist in tools or books, but that members are engaged in actions, which they negotiate together. *Joint enterprise* indicates that members negotiate situations with the intention of pursuing a common purpose or goal. When the community has produced or adopted tools, concepts, stories, routines, or ways of doing things that have become part of its practice, they have developed a *shared repertoire*. It is important to clarify though, the term CoP is not a synonym for team, network, or group; it is not a matter of being a member of a social category or belonging to an organisation; these groups do not necessarily characterise the three essential elements of a CoP (e.g., mutual engagement, joint enterprise, shared repertoire). Thus, it does not matter who knows or talks to whom within a network; and geographical proximity plays no role (Wenger, 1998).

Communities of practice: In the literature. Stemming from the work of Wenger and colleagues (1998, 2002, 2011), CoPs have become an area of interest for researchers and practitioners alike, and have been implemented within a variety of settings (Wenger, 2011). In this review, four contexts will be discussed: (a) teacher education, (b) healthcare, (c) business, and (d) sport. In addition to sport, the first three contexts are included because extensive research in these contexts has focused on the use of CoP to enhance the learning and performance of the respective practitioners.

CoPs have emerged within teacher education, healthcare, and business as a recognized approach for increasing the competency of practitioners (i.e., teachers, doctors, nurses, employees). In fact, since 1999, there has been a rising trend in publications on CoPs within the fields of healthcare and business (Ranmuthugala et al., 2011), as well as education (Vescio,

Ross, & Adams, 2008). Within these three domains, researchers have implemented a variety of community of practice designs and methods of assessment. For example, researchers and practitioners have employed an assortment of platforms for group member interactions, including face-to-face group meetings (e.g., Barwick, Peters, & Boydell, 2009; Cuddapah & Clayton, 2011; Robey, 2000), various online platforms (e.g., Barrett, Ballantyne, Harrison, & Temmerman, 2009; Rossignol et al., 2007; Sharratt & Usoro, 2003), as well as frequent workshops (e.g., Akerson et al., 2009; Chandler & Fry, 2009). In order to document the changes that result from participating in CoPs, researchers and practitioners have utilised various outcome measures and methods of assessment, such as observations and interviews (e.g., Cuddapah & Clayton, 2011; Hew & Hara, 2006; Schenkel & Teigland, 2008), surveys (e.g., Hemmasi & Csanda, 2009; Supovitz, 2002), baseline measures of performance (Tolson, Booth, & Lowndes, 2008), and reflective journals (Barrett et al., 2009). Through using the aforementioned designs and methods of assessment, researchers have uncovered a number of interesting findings; a few are of particular interest considering their relevance to coach development. For instance, as a result of participating in CoPs, teachers became more student-centred (Dunne, Nave, & Lewis, 2000) and enhanced their teaching approaches and practices (Bolan, McMahon, Stoll, Thomas, & Wallace, 2005), which resulted in improvements in student learning and achievement scores on standardized tests (Hollins, McIntyre, DeBose, Hollins, & Towner, 2004). Healthcare practitioners were better able to transfer knowledge into practice (Walker, Bruns, Conlan, & LaForce, 2011); enhanced their interpersonal communication (Herdrich & Lindsay, 2006); and increased the sharing of good ideas, knowledge, and practice (Chandler & Fry, 2009). CoP members within business experienced access to expertise, gained a sense of community, and retained knowledge (Saint-Onge & Wallace, 2003); increased their

productivity and experienced greater job satisfaction (Millen & Fontaine, 2003); and increased their ability to create knowledge with others (Li et al., 2009). Considering the benefits observed in other domains, it is not surprising that there has been an increasing interest in CoPs in sport within the past decade.

Despite this increase and the awareness of the potential benefits, scholarship focused on sport coach CoPs has been largely theoretical (e.g., Barnson, 2010; Gilbert, Gallimore, & Trudel, 2009), and when compared to other domains, there exist few empirical studies that have explored the influence on coaches of engaging in CoPs. Those who have implemented CoPs have done so in various contexts, such as baseball (Culver et al., 2009), high school sport (Bertram & Gilbert, 2011), karate (Lemyre, 2008), figure skating, (Callary, 2013), and alpine skiing (Culver & Trudel, 2006). A handful of scholarly works are of particular interest due to their interest in coaches' learning through social interactions. First, Culver and Trudel (2006) presented two studies, which were intended to promote and explore social interaction between coaches. The first of the two studies was conducted in a track and field athletics club, and included 17 coaches from various levels of competition. The authors' intentions were to "observe [the coaches'] interactions and also to be available as a sport psychology/pedagogy consultant" (p. 102). Although the interactions between the coaches in the study did not resemble that of a CoP, the coaches did exchange information and discuss coaching topics, typically one-on-one with each other and with other coaches at competitions. The findings suggested that promoting coach learning through social interactions is not an easy task.

The purpose of the second study presented by Culver and Trudel (2006) was to implement a CoP in a ski club, and included three phases. Phase One took place during the winter, and involved a mixture of coaches (experienced, intermediate, and novice) who coached

athletes 11 and 12 years old. The first author facilitated eight meetings over a 6-month period, and her role as a facilitator became less directive as the CoP progressed. During meetings (round tables), the coaches were asked to arrive ready to share and discuss three lessons they had learned from their day-to-day coaching. The authors highlighted the fact that the round table discussions resulted from the coaches' reflections about their daily practices. Phase Two took place during a summer camp, and included elite coaches working with 11 to 15 year olds. Of 16 round table meetings, the first author facilitated 11 of them. Rather than lessons learned, these meetings were more philosophical in nature (e.g., the price of being a coach). The coaches enjoyed the process of being involved in the CoP, and some felt that it helped them solve their coaching dilemmas. Phase three included two coaches from Phase One and four coaches from Phase Two, plus five additional coaches. The first author served as the facilitator during the first meeting. Moving forward without the first author, the meetings took on a more organisational nature, and focused less on the coaches' everyday interactions. This group never actually operated as a CoP, and thus learning from experience was primarily left up to each individual coach. These two studies by Culver and Trudel demonstrate that coaches can benefit from engaging in social learning situations, but only when the group members engage in a reflective process and discuss relevant coaching dilemmas (i.e., when interactions resemble a CoP). In addition, the third phase of the study conducted with the ski club illustrates that the role of the facilitator is a key element for continued engagement in a CoP. Without a facilitator, or someone interested in fostering learning in the CoP, the effectiveness of group meetings is highly compromised. These studies brought attention to the use of CoPs in sport settings, but demonstrated that additional inquiries were needed to further explore how CoPs can be implemented with sport coaches and what benefits coaches create throughout their participation.

Cassidy, Potrac, and McKenzie (2006) implemented a coach education programme, which included a 2-hour training session every two weeks over a 6-month period. During the intervention, the coaches were introduced to coaching theories and concepts, and were able to reflect upon and discuss them with other coaches. Interviews with eight coach-participants revealed that they greatly valued the opportunity to share ideas and participate in discussions with other coaches. In addition, the coaches benefitted from focusing on the process of coaching and engaging in a reflective process.

Culver, Trudel, and Werthner (2009) then retrospectively explored an attempt to foster a CoP in a competitive youth baseball setting. The study involved three time periods. The first covered a four-year period in which the sport leader changed the sport culture to facilitate knowledge sharing between coaches, and established a shared goal of developing each athlete within the league. The second time period covered the subsequent three years in which the league returned to the more traditional sport environment in the absence of the sport leader from time period one, where coaches did not consistently share knowledge and best practices. Time period three covered one year, the year in which the study was conducted, and demonstrated a willingness to return to the collaborate environment portrayed in time period one. Findings suggested that during time period one, the cooperative environment, where all coaches in the league focused on helping develop all the athletes in the league, led to a distribution of knowledge across the league. The authors argued that this sharing and collaboration facilitated the learning process of both the coaches and the athletes in the league. However, continued sharing and collaboration appears to require the presence of strong leadership dedicated to fostering these types of interactions between coaches, as shown by time period two, where in the absence of the sport leader the league returned back to its typical competitive nature.

Other researchers have debated the applicability of CoPs in the sport coaching context centred around the numerous benefits experienced in the field of teacher education (e.g., Trudel & Gilbert, 2004; Gilbert, Gallimore, et al., 2009). Gilbert, Gallimore, and Trudel (2009) suggested considering five important elements when implementing CoPs in the sport context (stable settings, job-alike teams, protocols that guide but do not prescribe, trained peer facilitators, and “working on athlete learning goals until there are tangible gains in athlete development”; Gilbert, Gallimore, & Trudel, 2009, p. 13). In adherence with these five guidelines, Bertram and Gilbert (2011) attempted to create learning communities (also considered CoPs) in three high school sport settings across an 18-month period of fieldwork. Their initial observations reported that amongst the many demands placed on sport coaches, administrators had difficulty viewing participation in a learning community as an immediate need for their coaches. The authors concluded that gaining buy-in is an important step for implementing CoPs in high school sport settings. Further, Bertram and Gilbert suggested that a reorganisation of coaches’ time might help administrators and coaches incorporate continuing education in coaches’ schedules. The authors also proposed that feeling similar to other coaches in the learning community, for instance sharing comparable coaching contexts, is important for helping the group identify and discuss coaching issues, and accept feedback from other members. In addition, Bertram and Gilbert argued that meeting agendas were necessary for maintaining coaches’ focus during meetings. Overall, their observations highlighted the need for further investigation on how to implement CoPs in various sport settings, and to explore how coach learning and coaching practices are influenced by participating in learning communities (i.e., CoPs).

Finally, Callary (2013) explored how a CoP was created and sustained in a figure skating club. Callary re-analysed data from a larger study, and re-examined two coaches' interviews (eight in total) in which she explored their life experiences and how the coaches had learned from them. It was clear that interacting within a social environment had played an important role in the coach-participants' learning, and thus, Callary explored this more deeply in her secondary analysis. She found that the creation of a new programme, where athletes rotated between coaches in order to choose a coach who best fit their personal needs, led the coaches to work together. The coaches began communicating on a daily basis, discussing coaching issues and developing trust between one another. Callary also discovered that the CoP was sustained over the course of three seasons by a few specific elements: (a) the club maintained a culture that was focused on learning with other coaches, (b) the coaches communicated on an on-going basis, and (c) the coaches developed a sense of trust with one another. It was apparent, however, that challenges were also present; these mainly revolved around how well the coaches knew each other. Being a close-knit group, and knowing the other coaches both personally and professionally, led them to shy away from conflict, and even sometimes away from potential learning opportunities.

In short, the scholarship focusing on CoPs in sport settings shows that this approach can be implemented with sport coaches. Researchers have proven that participating in CoPs contributes to coaches' learning by revealing that coaches learned by engaging in a community of practice (Culver & Trudel, 2006), saw value in talking with other coaches and focusing on the coaching process (Cassidy, Potrac, & McKenzie, 2006), and that there was a distribution of knowledge throughout the community (Culver et al., 2009). However, the success of such communities is dependent on changing the traditional competitive coaching culture to one that is

largely focused on knowledge development (Culver et al., 2009), along with the sustained commitment of a leader (Gilbert, Gallimore, et al., 2009). Although these works have provided a rationale for implementing CoPs in sport settings, it seems that the literature is lacking a more in depth understanding of exactly *how* participating in CoPs influences coaches' learning. Additionally, it appears that more accounts of implementing CoPs in sport settings are needed to help us better understand how they can best be implemented and assessed, as each study took a different approach to assessing how coaches benefitted or were influenced by their participation. Further, exploring how CoPs can be sustained in sport settings also seems necessary, as many scholarly works (with the exception of Callary [2013]) reported that the CoP was not sustained long term.

Communities of practice: Critiques. A number of critiques have emerged within the literature. Two in particular will be discussed here. First, there appears to be a lack of attention to how CoPs are designed, implemented, and sustained in practical settings. For instance, while conducting empirical studies, researchers typically create and implement a design that seems to fit the needs of the participants and setting, then hope to uncover the benefits observed within a specific group (e.g., Barwick et al., 2009; Gruenhagen, 2012; Schenkel & Teigland, 2008). Resulting from the many mechanisms of implementation and assessment, the literature lacks a basic and general understanding of how to design, implement, and sustain CoPs within practical settings. Moreover, researchers have identified a need for exploring useful design elements and mechanisms for implementation (Li et al., 2009). Therefore, exploring how CoPs could be designed, implemented, and sustained, and providing useful recommendations for coach educators, would be an interesting and significant contribution to the literature. Regarding the coach education literature, even less is known due to the lack of empirical studies attempting to

investigate these issues. To clarify though, the literature does not need a “one-size-fits-all” CoP approach. Rather, it could be helpful for coach educators to have a set of guidelines (which can be modified based upon the setting and coaches’ needs) to reference while designing and implementing CoPs. Second, the body of literature surrounding communities of practice primarily focuses on the group’s interactions and collective gains, rather than on the individuals that form the CoP, and the benefits they gain. For example, some have argued that “the individual is marginalized and as a consequence individual difference is generally unaccounted for” (Mallett, 2010, p. 130). Bertram, Paquette, Duarte, and Culver (2014) suggested that researchers focus on strategies to effectively assess the value created in communities of practice, both individually and collectively. Considering this, and the fact that the coach education literature needs additional inquiries that explore CoPs in sport settings (Mallett, 2010), it is important to more fully understand two phenomenon: (a) how communities of practice can be designed, implemented, and sustained in order to enhance coach learning and development, and (b) how value can be created by sport coaches participating in CoPs using a value creation framework.

Value creation framework. In an attempt to provide researchers and practitioners with an assessment tool applicable across a wide range of contexts, Wenger, Trayner, and De Laat (2011) developed a conceptual framework for promoting and assessing value creation in communities and networks¹: the Value Creation Framework (VCF). In a recent study, Bertram and colleagues (2014) used the VCF, and found it to be a useful tool to explore the benefits that were created by participating in a CoP. The VCF helps CoP members reflect upon their experiences by telling stories that illustrate both individual and collective value creation. Within

¹ Rather than two separate structures, Wenger and colleagues see communities of practice and social networks as “two aspects of the social fabric of learning” (p. 9).

this framework, Wenger and colleagues proposed that value could be created by participating in CoPs throughout five cycles. The authors state that: “By value creation we mean the value of the learning enabled by community involvement and networking” (Wenger et al., 2011, p. 7). They consider that value is being created when people share information, tips, and documents, learn from one another’s experience, help each other with challenges, collectively create knowledge, keep up with the field, stimulate change, or offer new types of professional development opportunities. Wenger et al. noted that one cycle does not lead to another, and that success is not defined by the achievement of cycle five. First, Wenger and colleagues suggested that community members gain *immediate value* by participating in CoPs, since interactions and activities have value in and of themselves. These interactions and activities lead to value that has the *potential* to be utilised in the future; a CoP member might learn a strategy for which there is no present use, yet there is potential to use it in the future. *Applied value* leads to changes or innovations in a member’s practices, actions, or approaches; however, changing one’s practice does not guarantee that there will be an improvement in performance. *Realized value* is created when there is a noticeable enhancement in performance, or when one achieves a goal as a result of applying value. Finally, *reframing value* is attained when participating in a CoP results in a reconsideration of learning objectives or how success is defined. This might include reframing an individual’s or community’s values, strategies, or goals. Bertram and colleagues provided the following fictional vignette to depict how value might be gained through participating in a community of practice:

A sales associate attends a bi-weekly team meeting to discuss the launch of a new product (immediate value). During the meeting, the associate makes note of several interesting product features and selling strategies discussed by the group (potential

value). By applying this information in his/her next sales opportunity (applied value), his/her ability to satisfy the customer's needs is enhanced (realized value), which in turn leads to a reconsideration and reframing of the importance of team meetings for enhanced performance and productivity (reframing value). (p. 3)

One of the key strengths of the value creation framework appears to be its tendency to focus on the voice of the participants, allowing them the freedom to explore the significance of their participation and discover its role in the creation of knowledge and competence, through story telling. Value creation stories illustrate how a community or network creates value. The potential learning value of storytelling is explored more fully by Moon (2010), who highlighted the importance of using story in both higher education and professional development. She suggested that storytelling can be a means for: facilitating learning through making sense of an experience, developing an identity, stimulating reflection, and constructing new knowledge.

Additionally, the framework provides a series of key questions to consider asking CoP members in an effort to help them uncover and reflect on the individual and collective value that is created by participating in CoPs (e.g., What happened and what was my experience of it?, 'What has all this activity produced?', and What difference has it made to my ability to achieve what matters to me or other stakeholders?). To further help researchers and practitioners uncover the value individually and collectively created by participating in CoPs, the VCF includes a list of value indicators (e.g., level of engagement, skills acquired, use of social connections). However, Bertram and colleagues (2014) suggested that CoP members may create value within different cycles depending on their prior experiences and individual needs (i.e., based upon their biography).

Biography. Some have highlighted the important role of the learner in the process of learning, and have suggested that there is a bidirectional relationship between the learner and his/her learning (e.g., Jarvis, 2009). Jarvis (2009, 2006) argued that learning events produce outcomes that are integrated into a person's biography, which can be considered the sum of experiences from which a person has learned. In essence then, a person is the product of his/her experiences, and is always becoming a changed person (Jarvis, 2009). Further, a person's biography has a complex influence on the learning process, which guides the learner as he/she acts, thinks, and feels within a particular situation (Jarvis, 2009). Thus, it can be argued that a coach's biography can influence the way he/she engages in a CoP by guiding his/her interactions with others, and/or possibly the areas of coaching he/she wishes to focus on during learning efforts; thereby leading the coach to create the value in which he/she is interested in creating. This is not to say that other CoP members cannot guide the conversations and efforts of the group, but simply that one member may choose to focus on certain aspects of learning, while rejecting others. This could lead different coaches to create value within different cycles of the VCF.

Personal experience. Maxwell (2005) suggested that it is important to reflect upon the researcher's prior knowledge and experience because "the researcher *is* the instrument of the research" (p. 38). Thus, it is necessary to consider my prior knowledge and experience so that I can become aware of it and use it throughout the inquiry. In an attempt to become more aware of my assumptions and biases, I have reflected upon two prior experiences and have written in a Researcher Reflective Journal (discussed in the Validity and Reliability section below). There are two experiences in particular that I feel contribute to my understanding of communities of practice and my ability to conduct further research on the approach within sport settings. First,

throughout my master's degree project (Bertram & Gilbert, 2011), I implemented three learning communities (also considered CoPs) within high school settings. The three groups included a high school athletic department (coaches and administrators), basketball (5 coaches, 1 administrator), and water polo (3 coaches). The water polo learning community most closely resembles the inquiries in the present doctoral dissertation, in which coaches met approximately once per month following a semi-structured meeting agenda, and completed reflection sheets before and after each meeting. In general, coaches felt that the meetings were beneficial and important for ongoing development. Working with each group presented a variety of challenges, with some of these being consistent across groups. One such challenge was that coach-participant commitment diminished as time progressed, which we (my supervisor and I) felt could be addressed through some type of rewards system along with continued support from administrators to potentially enhance buy-in and engagement.

The second experience that I believe helped me conduct efficient and effective research throughout the present dissertation is an inquiry (Bertram et al., 2014) that I conducted with colleagues during my first year as a Ph.D. student. This case study involved an in-depth exploration of how participating in a community of practice nested within a graduate studies programme influenced its group members. Data collection included semi-structured individual interviews with all members (both current and former), as well as two focus groups (one prior to and one after conducting the individual interviews). Data analysis involved coding each transcript and categorizing the codes into themes based upon Wenger and colleagues (2011) VCF. In general, the findings revealed that all members gained value as a result of participating in the community of practice meetings, and from other interactions with group members. For example, Bertram and colleagues reported that participating in a CoP enhanced the members'

learning and professional development. My colleagues and I felt that the value framework was a useful tool for exploring what value can be gained across a wide range of endeavours. However, in order to paint a clearer and more comprehensive picture of how group members are influenced by participating in communities of practice, it might be necessary to also explore what challenges and consequences might arise. This experience can be considered a “pilot study” to the present dissertation.

Epistemology, Methodology, and Methods

Constructivists embrace the philosophical belief that an individual constructs his or her own understanding of reality, and that meaning is based on his or her interactions with the surroundings (Lincoln & Guba, 1985; Heron & Reason, 1997). Thus, constructivism is guided by the ontological principle that multiple realities exist and that they vary depending on the individual (Guba, 1996). Knowledge can also be socially constructed and co-created, and is influenced by social interactions (Lincoln & Guba). In educational research, Duffy and Cunningham (1996) noted that within this paradigm, learning is a process of “acculturation into an established community of practice” (p. 6) and the focus of analysis is on an individual’s participation in socially constructed practices. Additionally, constructivism allows researchers to consider multiple perspectives (Duffy & Cunningham). Epistemologically, constructivists are guided by the belief that the researcher and the participant are linked, and thus, reality is reconstructed through interactions between the researcher and participant (Guba & Lincoln, 1994). In light of these assumptions, the constructivist paradigm was a fitting epistemological principle to address the aims of the present dissertation, as multiple perspectives were considered while attempting to explore the lived realities of the dissertation’s participants.

For the purpose of addressing the goals discussed in the introduction, two studies were conducted in an attempt to explore the interactions, activities, and experiences of CoP members in two different settings. Each study was conducted within a different sport setting, and each used a different methodology. Study One included one CoP, and Study Two included five CoPs. Correspondingly, the following section will be divided into two sub-sections, respectively describing the methods for each study. The research questions were designed to build on the current literature and to explore how communities of practice might be designed, implemented, and sustained within sport settings, as well as to assess what value is created by participating in communities of practice. Study One was a collaborative inquiry, where the researcher and five co-researchers designed, implemented, and assessed a CoP in a local youth soccer organisation. Study Two followed the basic interpretive qualitative methodology, in which the researcher conducted interviews with 12 participants in an attempt to explore the value that was created in five CoPs in university sport settings and how they were sustained. See Appendix A for the timeline of Study One and Two. See Appendix B for ethics approval and Appendix C for the renewal of ethics approval by the University of Ottawa Research Ethics Board.

Collaborative Inquiry (Study One)

In order to more fully address the goals of Study One, a collaborative inquiry methodology was used. Bray, Lee, Smith, and Yorks (2000) defined collaborative inquiry as, “a process consisting of repeated episodes of reflection and action through which a group of peers strives to answer a question of importance to them” (p. 6). Within the definition, there are three critical components. First, each of the participants is involved with “shaping the question, designing the inquiry process, and participation in the experience of exploring the inquiry question, making and communicating meaning” (p. 7). Essentially, the researcher is conducting

research *with* people rather than *on* people. However, it is important to mention that there is a continuum of co-participation that can range from full to partial involvement throughout the various phases of the research (Heron, 1996). On one hand, the researcher was completely involved in the design of the study, and only partially involved in the CoP and coaching actions. On the other hand, the co-researchers (coaches) were entirely involved in the CoP and coaching actions, and partially involved in the design and decision-making of the study (e.g., data analysis and producing the research report). Next, collaborative inquiry includes cycles, where the researchers and co-researchers reflect and act on their lived experiences, which are organised depending on the constraints of the group. According to Jarvis (1992), reflection and action are necessary for learning; people are “always experimenting on their environment and acquiring new knowledge from it” (p. 78). Moreover, the timing and form of reflection and action are dependent upon the purpose of the inquiry. Finally, it is important that the question of inquiry is important to all the co-researchers (Bray et al., 2000). In this phase, those who initiated the inquiry pose the question of interest, then invite others who may share that interest to join them. This component relies on two basic principles: (a) that the inquirers have the ability to explore the question through their personal experience, and (b) that every member of the group is equal in his/her ability to answer the question. Furthermore, Bray and colleagues (2000) suggested that the parameters of the inquiry are determined by how the question is phrased. The parameters include:

- (a) What actions by the participants are required for exploring the question, (b) how the experience of the participants will be captured for subsequent reflection and analysis, (c) what validity checks will be adopted by the group, (d) the number and timing of the

cycles of action and reflection, and (e) the duration of the inquiry itself. Decisions about these parameters are flexible and alterable as the inquiry proceeds. (p. 11)

Thus, considering the significant involvement of participants in the study's design, implementation, analysis, and report by the co-researchers, the following design was influenced by the co-researchers and their coaching needs – together, the researcher and co-researcher negotiated the study's design.

Research questions.

1. How can a coach community of practice be designed and implemented within a sport coaching setting?
2. How do members participate in the community of practice?
3. What value do members gain throughout their engagement in the community of practice?
4. How can Wenger et al.'s (2011) VCF be used to explore the value that was created by participating in the community of practice?

Recruitment and participants. The co-researchers in Study One were purposefully selected. The researcher contacted five local sport organisations to discuss the possibility of collaboratively creating and implementing a CoP. A few showed interest, but did not follow through with discussing the proposal further. The researcher's supervisor eventually suggested contacting the Operations Coordinator of a local soccer club, with whom she had recently been in contact. The organisation is one of the largest soccer clubs in Canada, with over 7,000 athletes at various levels and age groups. After a meeting with the Operations Coordinator, it was decided that a recruitment email would be sent to approximately 50 coaches who coached athletes from Under 8 years old to Under 21 years old in competitive leagues within the organisation. To be included in

the collaborative inquiry, the coaches were required to be planning to coach in the upcoming soccer season. The Operations Coordinator received three responses from the initial recruitment email, and received an additional two responses after sending it out once more. The recruitment email included a script provided by the first author, which included the purpose of the study, information regarding CoPs, as well as likely outcomes and expectations of the study. Including the Operations Coordinator, six coaches attended the first meeting. After two meetings, one coach dropped out, leaving five coaches (two females and three males) who participated for the duration of Study One. At the time of the study, all five participants were involved in coaching a winter team leading up to the summer soccer season. All six signed a letter of informed consent (Appendix D). To ensure anonymity, participants have been randomly assigned pseudonyms.

Table 1. Study One: Co-researchers' Biographies.

Coach	Role in Soccer Club	Coaching Experience (Soccer)	Coaching Experience (Total)	Education	Team(s) Coached	Paid
A	Soccer club Operations Coordinator & Asst. Coach	8 years	8 years	Bachelors in Recreation and Sport Studies: Sport Management	OPDL Team, 12 & 13 years old (girls)	Yes
B	Soccer club Board member & Asst. Coach	14 years	14 years	PhD in Sociology	U11 Tier 1 (girls)	No
C	Head Coach & Asst. Coach	15 years	15 years	2-yr Biotechnology degree & 3-yr IT Technical degree	U13 District Tier 2 & U11 Tier 2 (boys)	No
D	Head Coach	6 years (Plus 15 years as a strength & cond. coach)	6 years	Bachelors in Public Administration and Governance	U12 Tier 2, U8 rec, and U12 futsal (girls)	Yes ^a
E	Asst. Coach	6 years	15 years	Bachelors in Commerce	U11 Tier 1 (girls)	No

Note. Athletes in the U4 through U8 age groups participate in recreation leagues within the soccer organisation. Athletes in the U9 through U12 age groups can participate in Tier 1, Tier 2, and Tier 3 leagues, which are competitive levels (Tier 1 being the highest competition level). Athletes in the U13 through U21 age groups can participate in one of five levels: OPDL (Ontario Player Development League; a regional league with teams across Eastern Ontario), Level 3 through 5 (local competitive leagues), and a recreation house league.

^aAlthough this was a paid position, the coach did not accept the salary and chose to put the money back into the club.

Data generation. Data were generated in five phases: design, pre-season interviews, community of practice gatherings, post-season interviews, and respondent validation.

Phase 1: Design of the study. The purpose of this phase was to collaboratively create the community of practice design with the coach-participants. Prior to the start of Study One, a tentative CoP design was created by the researcher and discussed with her supervisor, and a tentative design was agreed upon. During the first meeting, a focus group was held, which was intended to determine the coach-participants' needs and preferences for the design and implementation of the community of practice gatherings. During this meeting, the researcher presented the tentative design to the coach-participants. The coach-participants decided to make two modifications: they shortened the meeting times from approximately 120 minutes to approximately 90 minutes, and increased the frequency of meetings from every three or four weeks to every two weeks (depending on their availability). The coach-participants agreed that four additional phases (outlined in the following four sections) would be conducted: a first interview, the CoP gatherings, a second interview, and a phase to validate the findings.

Phase 2: First interview. The purpose of this phase was to gain an in-depth understanding of the co-researchers' (coaches') biographies and intentions throughout the inquiry. Individual interviews were conducted after the second CoP meeting to ensure that the co-researchers fully understood the purpose and design of the study; this interview allowed the coaches to provide their thoughts and assumptions regarding the study. These individual interviews were conducted over the phone with each co-researcher and were audio recorded. The interview guide was created according to Wenger, Trayner, and De Laat's (2011) VCF and Bertram et al.'s (2014) interview guide template. See Appendix E for the full interview guide (Study One – Interview Guide 1).

Phase 3: Community of practice gatherings. Within this phase, the term "gathering" referred to both scheduled and other impromptu meetings. This phase involved the implementation of the Design (Phase 1) of the Study One. A total of eight meetings were held over a 4-month time

period, which averaged approximately one meeting every two weeks (pending the co-researchers' availability). Meetings were held in a conference room at the soccer organisation, and lasted between 63 and 105 minutes. During the scheduled meetings, the co-researchers discussed ideas, information, and challenges related to coaching. After the first meeting, each coach created his/her own "Top 10" list of topics he/she wanted to cover throughout the inquiry and learn more about. During the second meeting, the coaches shared their topics, discussed them, and then collaboratively created a "Master List." Each meeting thereafter was guided by a pre-determined topic based upon the master list. See Appendix F for the Top 10 Master List. The researcher and co-researchers then decided which topic would be covered at each meeting. In between meetings, the co-researchers reflected on the next topic, and brought ideas, challenges, and prior knowledge to discuss during each meeting. Although there was a "main topic" for each meeting, at least 30 minutes were set aside during each meeting for the co-researchers to bring up immediate issues and dilemmas that were not related to the main topic. This enabled them to receive advice and discuss their immediate issues with the other co-researchers. The researcher facilitated each of the first six meetings, after which they were facilitated by two of the co-researchers (one co-researcher facilitated each meeting). In addition, the co-researchers were asked to complete the Post Gathering Reflection Questions (Appendix G). However, they decided that they would engage in their own form of reflection, and brought their own notes to each meeting, or posted their thoughts on the web platform www.basecamp.com, which the CoP used to facilitate interactions in between meetings, post reflections, ask for advice, and share documents. See Appendix H for an example post on Basecamp.com.

The researcher attended each meeting and documented her observations. The purpose of the observations was to provide another source of data collection in an attempt to validate the

findings, and to afford the researcher additional information with which to ask probing questions during the second interview. The researcher's notes included observations regarding co-researchers' participation, topics of discussion, value that was being created, and any questions or comments to address at a future time. Some of the observations informed the second interview. For example, if during a meeting a co-researcher had discussed making changes to his/her coaching practices, but he/she had trouble recalling those changes during the second interview, the researcher asked probing questions based on her observations. See Appendix I for an example of the researcher's observation notes.

Phase 4: Second interview. The purpose of the second individual interview was to gain an in-depth understanding of the co-researchers' experience of participating in the CoP and how they were influenced by their participation. The researcher conducted the second individual interview with each co-researcher after Phase Three was complete. Each interview was audio recorded and conducted over the phone to accommodate the co-researchers' schedules. The co-researchers were provided with the interview guide in advance. Interview questions were intended to help coaches reflect on what value was created as a result of their participation in the CoP. See Appendix J for the interview guide (Study One – Interview Guide 2), which was intended to help the co-researchers reflect on value creation, and was formed based upon two tools: the key questions provided by Wenger and colleagues (2011) and the interview guide used by Bertram et al. (2014).

Phase 5: Respondent validation. The purpose of this phase was to further explore the themes that emerged from the analysis of the individual interviews, and to allow the co-researchers an opportunity to validate, add to, or dispute the researcher's interpretations and findings. Originally, the researcher had planned to conduct a focus group. However, due to the co-researchers' busy schedules, this could not be arranged. Instead, the researcher sent the co-

researchers the research report along with a summary of the findings that emerged. They were encouraged to provide feedback. All five of the co-researchers responded, yet only four provided feedback and minor modifications were made. Modifications included: placing an emphasis on the role of the coaches, including a discussion on how their coaching role may have had an impact on value creation, adding thoughts regarding the use of Basecamp.com, and revising quotes that were used.

Table 2. Study One: Data Generation

Phase	Purpose	Data generation
1	Design the collaborative inquiry	Focus group (first meeting) with all co-researchers
2	Gain an in-depth understanding of the co-researchers' intentions and expectations for participating	Individual interviews with all co-researchers
3	Gain an in-depth understanding of how the CoP members interact and engage in the CoP	Attend, observe, and document meetings and interactions, explore co-researchers' use of Basecamp.com
4	Gain an in-depth understanding of co-researchers' experiences and how they were influenced by participating in the CoP	Individual interviews with all co-researchers
5	Gain a more in-depth understanding of the findings that emerged during the inquiry	Feedback from the co-researchers on the inquiry's findings and conclusions

Basic Interpretive Qualitative Study (Study Two)

To address both goals of the present doctoral dissertation (to explore how CoPs can be designed, implemented, assessed, and sustained in sport settings, and to examine the value that is created by participating in a community of practice using the VCF) a basic interpretive qualitative study was conducted, with members of existing CoPs as the study's participants. In a basic interpretive qualitative study, "the researcher is interested in understanding how participants make meaning of a situation or phenomenon" and the "meaning is mediated through

the researcher as instrument” (Merriam, 2002, p. 6). While using this approach, the researcher was able to explore the perspectives and worldviews of the people participating in CoPs, as well as the phenomenon of the CoP itself. This methodology allows researchers to take advantage of interviews, observations, or document analysis. The data can be analysed for “recurring patterns or common themes that cut across the data” (pp. 6-7), after which a descriptive accounts of the findings are presented and discussed. The researcher and her supervisor considered the basic interpretive qualitative design to be an appropriate method for addressing the purpose and goals of Study Two, as it allowed the researcher to conduct an in-depth exploration of multiple CoPs.

Research questions.

1. How was the community of practice created and what structural elements contribute to its sustainability?
2. How do members participate in the community of practice?
3. What value do members create throughout their engagement in the community of practice?
4. How can Wenger et al.’s (2011) VCF be used to explore the value that was created by participating in the community of practice?

Recruitment and participants. In order to address the abovementioned research questions, the researcher searched for existing sport coach CoPs. For months, the researcher followed a number of leads, but could not find a group that resembled a CoP; one did not meet on an ongoing basis and was more sporadic; a few were more of a social group and did not share knowledge, ideas, or challenges. After posting a message on Facebook, a friend of the researchers recommended contacting someone she knew who coached at a university in the Midwestern United States. The researcher contacted the coach, and although the coach was not

involved in a CoP, she had heard of a similar type of group and recommended contacting an organisation: The Alliance of Women Coaches (The Alliance). The organisation's goals are to achieve equal compensation for women coaches, to expand career opportunities for women across all levels, and to increase the number of women head coaches in all NCAA divisions (Alliance of Women Coaches, 2014). The Alliance hosts a number of career development opportunities for female coaches, including an annual conference called The Huddle, two NCAA Women Coaches Academies per year (WCA; weeklong educational training sessions), as well as monthly webinars for its members. At The Huddle and the two WCAs, The Alliance promotes and encourages coaches to create Loop Groups (LGs). LGs are intended to promote the learning and development of female coaches who are immersed in the university sport setting, as well as to support them in the challenges they face as female coaches.

To determine if LGs could be considered CoPs, the researcher interviewed a staff member (Julie) at The Alliance. The interview included questions such as, What is the purpose of a LG?; Can you describe how people participate in the LG?; Does participation in the LG influence the members' learning or coaching practices? Once the interview was complete, the researcher and her supervisor discussed the characteristics of LGs, and decided that the LG concept did align with that of a CoP. Julie had agreed to forward a recruitment email to eight female coaches whom she knew had initiated LGs at their respective universities. A total of five coaches-initiators (coaches who had created an LG at their university) responded to the email and showed an interest in participating. Individual phone interviews were conducted with each of the five respondents. During the interviews, the coach-initiators were asked if they might be willing to forward the recruitment email to other members of their respective LGs, and all five were willing to do so. Seven additional responses (five coaches and two administrators) were

received, and interviews were conducted with these individuals, resulting in a total of 12 participants for the study. The participants in this study included five Head Coaches, three Assistant/Associate Coaches, two Athletic Directors (ADs), one Coordinator of Player Development, and one Strength and Conditioning Coach. All participants gave verbal informed consent, which was audio recorded, and three participants additionally signed the consent form (Study Two – Letter of Informed Consent; Appendix K).

Table 3. Study Two: Participants' Biographies.

Participant	Role	Sport	Years in current position	Education
1	Head Coach	Women's Softball	26	Master's in Sport Management
2	Head Coach	Women's Volleyball	23	Master's in Physical Education
3	Head Coach	Women's Soccer	19	Master's in Exercise Science
4	Head Coach	Women's Softball	11	Master's in Physical Education and Sports Administration
5	Assistant Coach	Women's Softball	9	Master's in Sport Management
6	Head Coach	Men's and Women's Swimming	6	Master's in Liberal Studies
7	Strength and Conditioning Coach	All female sports	5	Master's in Human Performance
8	Associate Head Coach	Women's Basketball	4	Bachelor's in Criminal Justice

9	Assistant Coach	Men's and Women's Cross Country & Track	3	Bachelor's in Physical Education
10	Coordinator of Player Development	Women's Basketball	1	Master's in Teaching and a Teaching Credential
11	Senior Associate Athletic Director	All sports	7	Master's in Sport Management
12	Athletic Director	All sports	6	Doctorate in Law

Data generation. The data generation process for Study Two included individual interviews with each participant. Once the participants were identified and contacted, it was the beginning of the summer, and the LG meetings had just ended for the academic year. Thus, the participants were reflecting back upon their experiences in the prior academic year (September to May). The purpose of the interview was to gain an in-depth understanding of: (a) the participants' biographies and intentions for participating in a LG, (b) the participants' experience of participating in the LG at their respective university (c) the participants' perception of the value creation that resulted from their participation, and (d) the participants' perceived factors that contributed to their LG's sustainability. The interview guide was created according to Wenger, Trayner, and De Laat's (2011) VCF. The researcher integrated these questions into a previous questionnaire used by Bertram et al. (2014), which they found useful in helping participants

explore their personal experiences within CoPs. See Appendix L for the full interview guide (Study Two – Interview Guide). For the ADs, the interview guide was followed, but questions were modified to reflect their perceptions of the coach-participants experiences. A total of 13 phone interviews were conducted, yielding 317 double-spaced pages. Interviews averaged 46:07 minutes (ranging from 26:02 to 85:30).

Data Analysis

Thematic analysis was used to address the purpose of the present doctoral dissertation. It has been suggested that thematic analysis is “the most useful in capturing the complexities of meaning within a textual data set” (Guest, MacQueen, & Namey, 2012, p. 11). In particular, Braun and Clarke’s (2006) six-phase thematic analysis was used. According to Braun and Clarke, thematic analysis is a “method for identifying, analysing and reporting patterns (themes) within data” (p. 79), yet, there is “no clear agreement about what thematic analysis is and how you go about it” (p. 79). Unlike other analysis methods, thematic analysis is not linked to a pre-existing theoretical framework, and therefore, the approach is flexible across a wide range of epistemologies and research questions (Braun & Clarke). According to the authors, the researcher must make a number of decisions before beginning data analysis; this includes answering the questions regarding which type of analysis to conduct (i.e., inductive versus theoretical), and which epistemology the researcher is grounded within. In an attempt to address the goals of the present doctoral dissertation, the researcher used both an inductive and theoretical approach to data analysis. This allowed the researcher to assess the value created by the coach-participants during their participation in a CoP, yet also allowed additional findings to arise. Further, the researcher approached data analysis from the constructivist paradigm, which assumes that multiple realities

exist and that knowledge can be socially constructed (Guba, 1996) and influenced by social interactions (Lincoln & Guba, 1985).

Braun and Clarke's (2006) data analysis procedure includes six phases: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the research report. For each study, a database was created using a data analysis software programme (N*Vivo 10; Qualitative Solution and Research, 2012). In Phase One, to become familiar with the data, the researcher conducted all the interviews, listened to the audio recordings of all the interviews, transcribed the interviews, and then read and reviewed the transcripts. During Phase Two, the researcher generated initial codes for each transcript by highlighting meaningful quotes and taking notes on a printed version of each transcript. Once the transcripts were uploaded to N*Vivo, codes were then created within the data analysis software. In this step, the researcher created codes for the previously identified ones on the printed versions, and identified new codes while reviewing each transcript in N*Vivo. In this phase, the VCF was used to generate initial codes by recognising the value indicators presented by Wenger et al. (2011). This can be considered a theoretical analysis. A data-driven analysis was also conducted, in which additional data were allowed to emerge by searching for codes that did not align with the VCF (see Figure 1). In Phase Three, the researcher searched for themes by organising the value indicators into each of the value creation cycles (theoretical analysis), and by combining the emergent codes to create categories (inductive analysis). Phase Four consisted of reviewing the fit of each of the value indicators (theoretical analysis), and reviewing the additional themes that were created during the inductive analysis to ensure that the themes accurately represented all the data that were collected. In this phase, the researcher and her supervisor then met to discuss the themes that were created and accurately represented the data. Her supervisor offered feedback on the

analysis process by suggesting to create additional themes or to combine existing themes, and also by affirming that quotes fit within their chosen themes. In the fifth phase, the researcher then went back to review and refine the themes, and finally to define and name the themes. Finally, in Phase Six, the researcher produced the research reports.

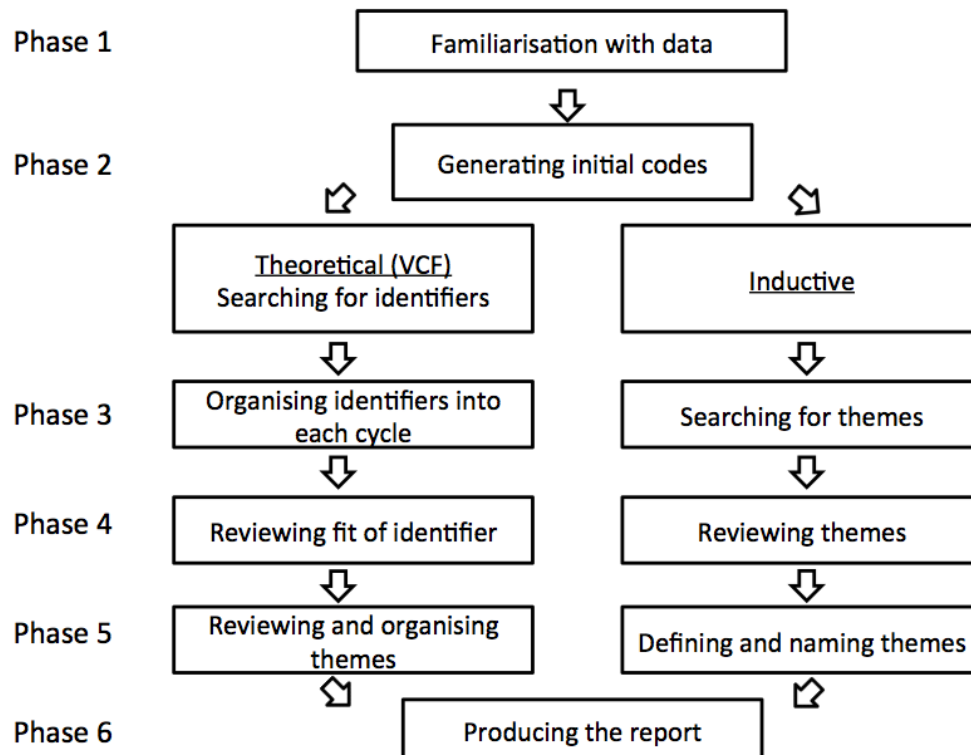


Figure 1. Visual representation of the steps of data analysis

Particularly for Study Two, an additional data analysis step was taken in order to further explore the value created within the five different CoPs. First, data from each CoP were analysed separately in an attempt to gain an in-depth understanding of its design, implementation, and the value that was created within it. During the analysis of Study Two it became evident that two unique stories were emerging: that of the novice coach and that of the more experienced coach. On one hand, the novice coaches seemed to be able to illustrate how they created value within each of

the five cycles of value creation, and draw upon specific examples of how they were changing as a result of their participation in the CoP. On the other hand, the more experienced coaches seemed to struggle in their attempt to illustrate how they created value by participating in the CoP. Instead, they were inclined to emphasise instances that involved helping the more novice coaches create value. This interesting reflection led to developing the two narratives presented in Article Three by conducting an analysis of narratives. In an analysis of narratives, the researcher “seeks to locate common themes or conceptual manifestation among the stories collected as data” (Polkinghorne, 1995, p. 13). This type of analysis allows the researcher to uncover commonalities that exist across the data (i.e., stories): “It functions to generate general knowledge from a set of particular instances” (Polkinghorne, p. 14). Using this approach, the researcher merged the data from each individual in Study Two to further explore the commonalities (or general knowledge) that could be derived from the data as a whole. As a result, Article Three was produced in an attempt to shed light on the two general stories that emerged from Study Two.

In an attempt to enhance the quality of the present doctoral dissertation, and in line with the procedures of qualitative inquiry (Bray et al., 2000), data analysis was conducted in real time as data were generated. Upon completion of individual interviews, the audio files were transcribed and the researcher began reading and reviewing for themes. The transcripts were also uploaded to the data analysis software N*Vivo. Guest et al. (2012) posited that an iterative approach to data analysis, where data is analysed in real time, is crucial to the success of a study. This type of approach provides the researcher with an opportunity to improve the overall quality of the data by using the initial steps of data analysis to improve the overall data generation process prior to its completion (Guest et al., 2012). The researcher used this process to reflect on how the interview questions were impacting the participants’ responses, and utilised this information to refine her

ability to ask probing questions. For example, if the participants were unsure about the meaning of a certain research question, then the researcher clarified that question in future interviews. In addition, if in one interview a question produced an interesting response, the researcher used that response as a probing question in subsequent interviews.

Validity and Reliability

Whittemore, Chase, and Mandle (2001) stated that: “The concept of validity in qualitative research has undergone numerous transformations to strengthen the unique contribution this scientific tradition offers to knowledge development” (p. 523). Some qualitative researchers have suggested that the concept of validity is incompatible with the constructivist approach, and have proposed various other terms in which to describe validity or rigour in qualitative inquiries (e.g., Lincoln & Guba, 1985; Eisner, 1991). However, none has been overwhelmingly supported (Whittemore et al.). Other researchers have argued that the meaning of validity has changed over time: “It has become confused by the narrowing of the concept to refer to tests or measuring instruments. In narrative research, ‘valid’ retains its ordinary meaning of wellgrounded and supportable” (Polkinghorne, 1988, p. 175). As such, some qualitative researchers have continued to use the term validity to ensure the rigour of their inquiries (e.g., Gilbert & Trudel, 2001; Rynne et al., 2010). Whittemore and colleagues argued that: “Validity is an accurate term and does provide the opportunity for criteria to be developed that are reflective of the tenets of the interpretive perspective” (p. 527), and also that the term receives instant understanding and recognition among the scientific community.

With a particular focus on collaborative inquiry, Bray and colleagues (2000) considered the concept of validity. They argued that: “All serious inquiries must meet tests of validity” (p. 104), and that simply observing a change in the participants can be the result of a valid inquiry:

The initiator should keep in mind that the mark of a valid collaborative inquiry is that it has produced change in the participants – change is the marker of learning. Often this change results in new approaches to practice that affect organizational settings. (p. 57)

For Bray and colleagues, one way to meet tests of validity is to avoid flawed meaning. A method for avoiding flawed meaning is by ensuring that there is diversity in the group (e.g., differences in gender, experience, and learning styles). Arguably, the participants in Study One were diverse in these ways, considering that they had varying experiences, and that the group included three males and two females. Another method for ensuring validity is identifying sources of collaborating experience. By this, Bray et al. meant that obtaining corroborating experiences from at least three people served as a basis for considering a finding as collectively valid. Thus, while reporting the findings, if at least three of the five participants in Study One reported experiencing a certain value, then it was considered an important finding (and seen as convergence). However, instances of divergence were also explored in an attempt to shed light on the participants varying experiences due to their biography or personal circumstances. These instances were also discussed in the findings. Finally, the researcher believed the present doctoral dissertation to be valid if, in the end, it had produced change in the participants and how they practice. Bray et al. suggested that a key indication that a collaborative inquiry has been effective is that it produces change (or learning) in the participants or their context.

Maxwell (2005) suggested that there are a number of validity and reliability threats that may exist while conducting qualitative inquiries. Because Maxwell viewed validity in a somewhat common sense and straightforward way, which is not linked to any particular paradigm or method (Maxwell, 2013), the validity and reliability threats presented in Maxwell (2005) were considered during the present doctoral dissertation. For qualitative inquiries, researchers must attempt to rule

out most threats to validity after the research has begun “rather than by attempting to eliminate such threats through prior features of the research design” (Maxwell, 2005, p. 107). This approach requires the researcher to identify specific threats and subsequently develop approaches in an attempt to rule them out. It is important to understand that “validity is a goal rather than a product,” (Maxwell, 2005, p. 105), it cannot be taken for granted or proven, and therefore, the researcher can only *attempt* to increase validity rather than *ensure* the validity of the proposed study. Guest and colleagues (2012) argued that: “Employing some or all of the procedures [e.g. addressing biases, coding checks, supporting assertions with quotes, seeking out negative cases]... will provide ample checks and balances to enhance the validity and reliability of your data analysis and interpretation” (p. 98). Likewise, Bray et al. suggested that establishing validity in a collaborative inquiry (or in any inquiry) is “a process of identifying the threats to validity in the type of study being conducted and of developing a method for countering these threats” (p. 109). In light of these viewpoints, the researcher employed a variety of procedures, including a bracketing interview, reactivity and reflexivity, triangulation, supporting assertions with quotes, and respondent validity in an attempt to address the validity and reliability threats that may have been present in the Study One and Study Two.

Bracketing interview. As cited in Maxwell (2005), “two important threats to the validity of qualitative conclusions are the selection of data that fit the researcher’s existing theory or preconceptions and the selection of data that ‘stand out’ to the researcher” (p. 108; Miles & Huberman, 1994; Shweder, 1980). Qualitative research is primarily concerned with “understanding how a *particular* researcher’s values and expectations influence the conduct and conclusions of the study (which may be either positive or negative) and avoiding the negative consequences” (Maxwell, 2005, p. 108). In particular, reliability while conducting a thematic analysis is of greater

concern considering the interpretation of data necessary for coding (Guest et al., 2012). Therefore, in order to better understand how the researcher's preconceptions and biases influenced Study One and Study Two (i.e., the design to data analysis and write up), and to take these into account through each phase of the inquiry, a bracketing interview was conducted with her thesis supervisor (Dr. Diane Culver). For a qualitative data analysis course, the researcher had previously conducted a bracketing interview, and thus was familiar with the process. In addition, as a requirement for the course, the researcher wrote an 11-page paper. Writing this paper allowed her to critically reflect upon her biases and assumptions, and to discuss how she might address them to enhance the rigor of the two studies conducted for her doctoral dissertation. For the purpose of the present study, the researcher modified the bracketing interview guide that was created for her data analysis course, and also discussed its relevance with her supervisor. A few questions were modified. The bracketing interview was conducted with her supervisor in the proposal phase of the doctoral thesis process, and once again in the midst of data collection. (See Appendix M for the Bracketing Interview Guide). Engaging in the bracketing interviews enhanced the researcher's understanding of her assumptions and biases, and allowed her to adjust her behaviour accordingly. For example, the researcher (a) refrained from using leading interview questions and probing questions, (b) refrained from pushing participants to participate in ways that she felt they should participate (and instead simply made suggestions for enhancing their participation in Study One, but allowed them to choose), and (c) remained open-minded during data analysis by allowing the data to speak.

Reactivity and reflexivity. Reactivity is described as the influence the researcher has on the individuals or setting being studied (Maxwell, 2005). Maxwell suggested that the goal should not be to eliminate the researcher's influence, but rather to understand it and use it productively (which was also addressed in the bracketing interview). However, this influence is much less

influential than the setting itself (Becker, 1970). Reactivity within an interview situation is referred to as reflexivity, in which the interviewer and the interview situations always influence the interviewee (Maxwell). In order to address this validity threat, throughout the data collection phases, the researcher attempted to understand how she was influencing the participants and how it may have affected validity. The researcher also avoided the use of leading questions in the individual interviews. To assist the researcher in this process, she kept a Researcher Reflective Journal. Janesick (2011) suggested that keeping a Researcher Reflective Journal might refine the researcher's comprehension of her role through writing and reflection, and increase her understanding of the participants' responses within the study. The Researcher Reflective Journal helped the researcher better understand how her behaviours might influence the participants, and therefore, allowed her to adjust her behaviour accordingly during the two studies. The journal entries, for example, helped the researcher adjust the phrasing of probing questions when she noticed during analysis that the participants did not fully understand them. The entries also helped the researcher reflect on and identify value creation indicators, which she referred back to during subsequent data analysis. In order to take full advantage of the benefits that might result from writing in a reflective journal, the researcher wrote in her journal after every interaction or activity with the two studies' participants, whether it was a quick note to reflect upon later, or 30-60 minutes to write a complete entry and engage in critical reflection. Entries were handwritten, typewritten, or audio recorded. In total, the researcher completed 64 journal entries, which included 37 entries for Study One and 27 entries for Study Two. See Appendix N for two excerpts from the researcher's Researcher Reflective Journal.

While observing the meetings in Study One, the researcher allowed the co-researchers the freedom to speak and discuss topics that were important to them. She only guided the discussion

back on track when the co-researchers veered off topic, and only offered her opinions and reflections when the co-researchers asked for them. Thus, the meetings were mainly guided by the co-researchers, with only minor input from the researcher. In addition, the researcher tried to help the participants and co-researchers feel at ease, by connecting with them about coaching, and sharing personal experiences with them. Further, three participants in Study Two were from the researcher's home state, which allowed her to connect with them more deeply.

Triangulation. Triangulation is defined as “collecting information from a diverse range of individuals and settings, using a variety of methods” (Maxwell, 2005, p. 112), and can reduce the risk of chance associations, as well as systematic biases, that result from a specific method. Mathison (1988) presented different types of triangulation. The three methods of triangulation used in the present doctoral dissertation included data triangulation (using more than one individual or type of data as a source of data), investigator triangulation (using more than one researcher during the inquiry), and methodological triangulation (using multiple methods in the examination of the phenomenon being explored). In Study One and Study Two, all three of these methods of triangulation were employed. Although each study entailed different methods of data generation and used different sources of data during data triangulation, both employed investigator triangulation. In addition, when reflecting on the overall doctoral dissertation, methodological triangulation was employed, as two different methodologies were used to explore the dissertation's research questions.

In Study One, two individual interviews were conducted with all the co-researchers. Data generation also included a focus group, documents produced by the CoP, the researcher's observation notes during each meeting, and any interactions or resources shared on the online discussion platform (Basecamp.com). In reference to Basecamp.com, the researcher used certain

online interactions to inform and influence the interview process, specifically the second interview. Thus, if a coach was struggling to find examples of a specific cycle of value, the researcher would ask about a certain post he or she uploaded on Basecamp.com. In a few instances, this helped the coach remember and reflect on a value that was created. The researcher's observation notes were used in a similar fashion, helping coaches remember specific topics that were discussed in the CoP gatherings. This helped the coaches reflect on the instances during the second interview. Additionally, once the data analysis was complete, the researcher compared the findings that emerged from the interviews with her observations and the discussions that occurred on Basecamp.com. In most instances, the data supported each other (converged).

In Study Two, individuals from five CoPs were interviewed, ensuring that multiple perspectives were included in the inquiry (i.e., data triangulation). Maxwell (2005) suggested that using various sources of data provides a viewpoint that could otherwise be overlooked. For Study Two, this was especially important due to the fact that the researcher could not observe any of the CoPs' interactions. During data analysis, it was clear however that similar themes emerged from all of the participants' interviews.

Respondent validation (member checking). In order to increase the validity of the present dissertation, the researcher obtained respondent validation, defined as:

Systematically soliciting feedback about your data and conclusions from the people you are studying. This is the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do and the perspective they have on what is going on, as well as being an important way of identifying your own biases and misunderstandings of what you observed. (Maxwell, 2005, p. 111)

Heron (1996) argued that member checking is a valuable method for facilitating the co-creation of knowledge between the researcher and participant in the constructivist paradigm.

In terms of strict constructivism, member checking in any objective sense is impossible. If I, the researcher, ask you, the member, whether my account of your view is correct, and you say it is, then we have co-created a new construction which is subtly different from and supercedes your original view. When any two people agree, after suitable discussion, that they have grasped the reality of one of them, that reality is changed by the shift from a unilateral to a bilateral perspective. (p. 161)

Maxwell cautioned though that participants' feedback is no more valid than their initial interview responses, and thus both should be considered another form of evidence. In light of this, for both Study One and Study Two, the researcher encouraged co-researchers and participants to member-check their individual interview transcripts before they were analysed. For Study One, as data were analysed, the researcher held discussions with two of the participants in which they discussed the progress of the inquiry, and therefore, two of the co-researchers had an opportunity to provide further feedback. The researcher felt that this process validated some of the study's findings in real time and promoted reflection and discussion. The researcher also felt that this allowed her to decrease the likelihood of misinterpreting the participants' responses.

Presentation of the Articles

The findings from the two studies are presented in three articles. From Study One, Article One was written (accepted for publication in the *International Sport Coaching Journal*) and investigates the value that was created by five coaches who participated in a sport coach community of practice in a youth soccer organisation. Due to the amount of data produced during data collection in Study Two, two articles were written: Article Two and Article Three. Article

Two (under review in the *International Journal of Sports Science & Coaching*) illustrates an in-depth examination of one of the five CoPs in Study Two, which includes four of the 12 participants. Article Three (in preparation) is intended to provide a unique perspective of the findings in Study Two by presenting two collective narratives, and to provide researchers and practitioners with practical recommendations to implement CoPs within sport settings, or to help them improve existing CoPs by enhancing the members' capability to create value through their participation. Therefore, this article provides a brief overview of the literature and the findings, and includes all five CoPs.

Article One

Creating value in a sport coach community of practice: A collaborative inquiry

Bertram, R., Culver, D. M., & Gilbert, W. (in press). Creating value in a sport coach community of practice: A collaborative inquiry. *International Sport Coaching Journal*.

Abstract

Coach education researchers have suggested that coaches require ongoing support for their continued learning and development after initial certification. Communities of practice have been used in a variety of settings, and have been identified as an effective means for supporting coach learning and development. However, researchers have yet to fully explore the value that can be created through participating in them within sport settings. The purpose of this study was to collaboratively design, implement, and assess the value created within a coach community of practice, using Wenger, Trayner, and De Laat's (2011) Value Creation Framework. Participants included five youth sport coaches from a soccer organisation. Data collection included observations and reflections from the first author throughout the study, two individual interviews with each coach, and interactions via an online discussion platform. The findings revealed that the coaches created value within each of the five cycles of value creation in Wenger and colleagues' framework, and that they created value that was personally relevant to their immediate coaching needs. The coaches' learning led to an increase in perceived coaching abilities.

Key words: professional development, continuing education, Value Creation Framework, learning, biography

Introduction

Scholarly works focusing on sport coaching have continued to increase over the past decade (Rangeon, Gilbert, & Bruner, 2012). Amongst a number of efforts within this field, researchers have dedicated significant amounts of time and energy in attempts to better understand the complex phenomenon of coach learning (e.g., Nelson, Cushion, & Potrac, 2006; Rynne, Mallett, & Tinning, 2010). Coaches learn through a variety of ways, including formal coach education (e.g., Deek, Werthner, Paquette, & Culver, 2013), mentorship (e.g., Wilson, Bloom, & Harvey, 2010), observation (e.g., Carter & Bloom, 2009), and engaging in a reflective process (e.g., Werthner & Trudel, 2006). Sport systems, however, tend to place considerable emphasis on formal coach education programmes with the intent of professionalizing the sport coach and to ensure that coaches acquire a minimum standard of competency (ICCE, 2012).

Coaches spend a majority of their time actually coaching when compared to the amount of they spend participating in certification programmes (Gilbert, Lichktenwaldt, Gilbert, Zelezny, & Côté, 2009). In light of this, it is not surprising that coaches highly value and consistently report the importance of learning throughout their everyday experiences (Jones, Armour, & Potrac, 2004; Jones, Harris, & Miles, 2009; Werthner & Trudel, 2006). For instance, coaches often seek out others (e.g., mentors, peers) when searching for solutions to coaching issues (Gilbert & Trudel, 2006), and greatly value these interactions (Gilbert et al., 2009). In the various learning situations that take place outside of coach education programmes, coaches are able to focus on their individual learning needs and solutions to real-life coaching issues while engaging in socially constructed learning situations. A community of practice (CoP) is one approach that cultivates these social interactions.

Communities of Practice: The Concept

CoPs are defined as: “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott, & Snyder, 2002, p. 4). The concept of CoPs is rooted in Lave’s (1982) work on the apprenticeship of tailors in Liberia (Larocque, 2006). Lave’s work eventually evolved, partly through collaboration with Wenger (Lave & Wenger, 1991). In this work, the authors suggested that learners develop knowledge and skills through participating in CoPs where they gain access to expert performers. Wenger later developed a conceptual framework for CoPs (Wenger, 1998), in which he stated that learning should be seen as social participation, whereby people learn through the negotiation of meaning in their interactions with others and their work.

In a CoP, such interactions are influenced by: (a) mutual engagement, (b) joint enterprise, and (c) shared repertoire (Wenger, 1998). *Mutual engagement* considers that practice does not reside in tools or books but instead exists because members are engaged in actions that are negotiated together. The negotiation of a *joint enterprise* implies that members have a common purpose and manage situations in the pursuit of that purpose. *Shared repertoire* suggests that the community has produced or adopted tools, routines, concepts, stories, or ways of doing things that have become part of its practice. It is also important to discuss what CoPs are not: not simply a team, network, or group of people, nor are they always harmonious (Wenger, 1998). Indeed, learning and collaboration often take place in teams, networks, and groups; however, simply belonging to a team, network, or group does not guarantee that all three necessary elements are present (e.g., mutual engagement, joint enterprise, shared repertoire).

Communities of Practice: In the Sports Coaching Literature

In recent years, interest in CoPs has increased, as they have been recognized in a number of fields (i.e. business, education, and healthcare) as useful for improving the learning and competency of practitioners (e.g., Ranmuthugala et al., 2011; Saint-Onge & Wallace, 2003; Vescio, Ross, & Adams, 2008). Despite this increased interest, scholarship focused on sport coach CoPs has been largely theoretical (e.g., Barnson, 2010; Gilbert, Gallimore, & Trudel, 2009). However, researchers who have explored CoPs have done so across a range of coaching contexts, at the club or team level, such as youth baseball (Culver, Trudel, & Werthner, 2009), karate (Lemyre, 2008), alpine skiing (Culver & Trudel, 2006), figure skating (Callary, 2013); and high school sport (Bertram & Gilbert, 2011; Lemyre, 2008). In general, researchers have found that coaches learned by interacting and negotiating meaning related to their local practice through engagement in the CoP (Culver & Trudel, 2006), saw value in talking with other coaches and focusing on the coaching process (Cassidy, Potrac, & McKenzie, 2006; Cassidy & Rossi, 2006), and as a group were able to distribute knowledge throughout the community (Culver et al., 2009).

In the teacher education setting, researchers identified five elements as beneficial to creating and sustaining CoPs (referred to as learning communities; Gallimore, Ermeling, Saunders, & Goldenberg, 2009; Saunders, Goldenberg, & Gallimore, 2009). Gilbert, Gallimore, and Trudel (2009) posited that they might be of relevance while implementing the CoP approach to enhance coach education. The five elements are: (a) stable settings, (b) job-alike teams, (c) protocols that guide but do not prescribe, (d) trained peer facilitators, and (e) working on athlete learning goals until there are tangible gains in athlete development. In sport, researchers have found that the success of the CoP approach is additionally dependent on changing the traditional

competitive coaching culture to one that is largely focused on shared knowledge development (Culver et al., 2009), along with the sustained commitment of a leader (Gilbert, Gallimore, & Trudel, 2009). Thus, it is necessary to further explore how CoPs can be designed and implemented within sport settings, and what elements contribute to an effective CoP environment. Moreover, it is important to further our understanding of value creation in CoPs by adding to the scholarship focused on CoPs in sport settings, where coaches benefited from interacting with others (e.g., Cassidy et al., 2006; Cassidy & Rossi, 2006; Culver et al., 2009; Culver & Trudel, 2006). This might be achieved by utilizing a comprehensive assessment framework that explores the broad range of value that can be created through participating in CoPs, which would shed light on how participating in CoPs influences coach learning and development.

Communities of Practice: Critiques

Considering the diverse and abundant set of designs that have been implemented, a number of critiques have emerged within the literature. First, there seems to be a lack of information about how CoPs are created and implemented in practical settings (Fuller, 2007); and researchers have identified a need for exploring and documenting useful design elements and mechanisms for implementation (Li et al., 2009). Second, some have argued that the body of literature surrounding CoPs primarily focuses on the group's interactions and collective gains, rather than on the effects on individuals. For example, Mallett (2010) suggested that "the individual is marginalized and as a consequence individual difference is generally unaccounted for" (p. 130). In an attempt to address this critique and provide researchers and practitioners with an assessment tool, Wenger, Trayner, and De Laat (2011) developed a conceptual framework for promoting and assessing value creation in communities and networks.

Value Creation Framework

The Value Creation Framework (VCF) was created with the intention of providing a comprehensive tool, useful across a wide range of endeavours, that would allow individuals and communities to explore what value is created through participating in CoPs by telling stories that depict their experiences. Wenger et al. (2011) proposed that value could be created through five cycles. First, they suggested that community members gain *immediate value* throughout their participation in CoPs, because interactions and activities have value in and of themselves. For example, CoP members might enjoy themselves during meetings, or receive affirmations regarding their coaching practices. These interactions and activities also produce value that has the *potential* to be utilised in the future. For instance, a community member might learn about a tool or strategy that could be used in the future, but for which there is no current use. Potential value is further divided into five categories: personal assets, relationships and connections, resources, collective intangible assets, and transformed ability to learn. For instance, developing relationships with other coaches might prove to be useful in the future.

Applied value is created when members implement new strategies in their practice, or modify existing ones; this however does not guarantee an enhancement in performance. *Realized value* reflects an improvement in performance or the achievement of goals as a result of applying value. Finally, *reframing value* is gained when engagement in a CoP leads to a reconsideration of learning objectives and/or the definition of success. This might include reframing an individual's or community's values or goals. A strength of the VCF is its focus on the voice of the participants, encouraging them to explore the significance of their participation and to discover, through story telling, how this participation plays a role in their knowledge creation and competency development. Value creation stories paint a clear and reliable picture of how a

community creates value by connecting community activities with learning (Wenger et al., 2011).

As illustrated in Figure 1, it is important to note that members do not always move linearly from cycle one through cycle five. For example, a CoP member might create immediate and potential value, and then reassess that knowledge or skill to reframe his or her views in terms of learning objectives or success. Similarly, if a CoP member implemented a strategy (applied value) and did not experience realized value, he/she may reassess the situation, discuss it in the CoP, modify their approach, and then implement the new strategy.

Along with the focus on value creation stories, the VCF (Wenger et al., 2011) provides researchers and practitioners with a series of key questions to ask community members in an attempt to help them reflect on, and uncover, both individual and collective value creation stories (e.g., “What happened and what was my experience of it?”, “What has all this activity produced?”, and “What difference has it made to my ability to achieve what matters to me or other stakeholders?”). To further assist in the endeavour of assessing value creation, the authors included a comprehensive list of value indicators (i.e., markers that suggest value is being created), such as the CoP members’ level of engagement, use of social connections, or skills they acquired. These indicators aid researchers and practitioners in identifying value that is gained individually and collectively.

Recently, Bertram, Paquette, Duarte, and Culver (2014) suggested that Wenger and colleagues’ VCF (2011) could be an effective tool to explore the benefits (both individually and collectively) experienced through participating in sport coaching CoPs. There is a need to further explore the CoP approach, how it can be used to support coaches’ ongoing development, and how the VCF can be used to measure the value created by participating in CoPs. Therefore, the

purpose of the present study was to collaboratively design and implement a CoP, and to assess, using the VCF, the value coaches experienced as a result of their participation.

Method

Collaborative Inquiry

A collaborative inquiry methodology was used, and is defined as “a process consisting of repeated episodes of reflection and action through which a group of peers strives to answer a question of importance to them” (Bray, Lee, Smith, & Yorks, 2000, p. 6). Bray and colleagues suggested that human inquiry is best conducted when all those involved (i.e., researchers and participants) are fully engaged in the design, conduct, and communication of the study, whereby participants are considered co-researchers. In essence, the researcher is conducting research *with* people rather than *on* people. Collaborative inquiry also involves phases of reflection and action on lived experience, which are organised depending on the constraints of the group. Finally, the question of inquiry should be important to all the co-researchers (Bray et al., 2000). Thus, those who initiate the inquiry pose the question of interest, then invite others who may share that interest to join them. It is important to note that there is a continuum of co-participation, in which the researcher and co-researchers can participate in each of these phases, which ranges from full to partial involvement (Heron, 1996). Additionally, there are two types of participation: (a) political participation – involvement in the study’s design and decision-making, and (b) epistemic participation – engagement in the generation of data or experience of the study (Heron). The primary researcher was fully involved in the design of the study, and only partially involved in the CoP and coaching actions, while the co-researchers (coaches) were fully involved in the CoP and coaching actions, and only partially involved in the design and decision-making of the study (e.g., data analysis and producing the research report).

Given the nature of collaborative inquiry, the methods are arguably part of the findings. However, for the sake of clarity related to the purpose of the present paper, we present the methods and findings separately. An understanding of the design and implementation of the CoP is important for the reader to appreciate the context in which the value was created.

Coach Participants

The participants were purposefully recruited. The first author contacted a number of local sport organisations to discuss the possibility of creating a CoP. One soccer organisation in particular was interested and excited to participate. The organisation is one of the largest in Canada, with over 7,000 athletes at a variety of age groups and levels, and promotes long-term athlete development. A staff member sent out a recruitment email to approximately 50 coaches in the organisation who coached athletes from Under 8 years old to Under 21 years old in competitive leagues. After receiving only three responses, the staff member sent the recruitment email a second time, and was then contacted by two more coaches. The email included a script provided by the first author, which outlined the purpose of the study, information on CoPs, potential benefits resulting from participation, and expectations of the study. Including the staff member, six coaches showed interest in participating, and the first author met with them to discuss the study. All six coaches signed a letter of informed consent. After two meetings one coach dropped out. Final participants included two females and three males. At the time of the study, all five participants were involved in coaching a winter team leading up to the summer soccer season. To ensure the anonymity of participants, pseudonyms are used and have been randomly assigned. Ethics approval was obtained from the first author's academic institution. Table 1 provides information about the coaches.

Data generation

Data were generated in five phases: design of the study, first interview, CoP gatherings, second interview, and respondent validation.

Phase 1: Design of the study. A tentative CoP was designed by the first and second authors based upon CoP principles (e.g., shared repertoire, mutual engagement, joint enterprise). During the first meeting, the first author presented the tentative CoP design to coaches. After discussion, modifications were made and a design was agreed upon. The coaches made two modifications: they shortened the meeting times from approximately 120 minutes to approximately 90 minutes, and increased the frequency of meetings from every three to four weeks to every two weeks (depending on their availability). It was agreed by all that four additional phases should be included in the inquiry: a first interview, the CoP gatherings, a second interview (interview guides were approved by the coaches), and a phase to validate the findings.

Phase 2: First interview. Individual interviews were conducted over the phone (in order to more easily accommodate the coaches' busy schedules) with each coach after the second CoP meeting; these were audio recorded. They were conducted at this point to ensure that the coaches understood the purpose and design of the inquiry, which would allow them to adequately answer the interview questions (e.g., What are your expectations for participating in the group?). The interview guide was created based upon Wenger et al.'s (2011) key questions in the VCF, as well as Bertram et al.'s (2014) interview guide. The purpose of the interview was to gain an in-depth understanding of the co-researchers' biographies and their intentions and expectations for participation in the CoP (e.g., Can you please provide a brief overview of your biography? Do you have any thoughts or expectations about the group? What do you hope to gain or learn from the group?). See Appendix A for the full interview guide (Interview Guide 1).

Phase 3: Community of practice gatherings. Within this phase, gatherings included both scheduled meetings and other impromptu get-togethers, and involved the implementation of the CoP that was created in Phase 1. A total of eight scheduled meetings were held approximately every two weeks over a 4-month period. They were held in a conference room at the soccer organisation, and lasted between 63 and 105 minutes. Based upon their coaching context and individual needs, the coaches each created a “Top 10” list of topics they wished to address throughout the study. Together, they then created a master list, and categorized the topics into sub-topics. The master list included: coaching responsibilities, time management, dealing with conflicts, psycho-social development, communication, motivation, team management, team building, coaching behaviours, and other. Because there were a number of sub-topics the coaches wished to cover, categorizing them into main topics allowed the coaches to focus on an overarching topic that would be covered, but also allowed them to discuss their individual interests (i.e., the sub-topics they each created). For example, one coach wished to address issues he was having with his athletes’ parents, and another wished to address dealing with conflicts between players. Thus, the theme “dealing with conflicts” was created, and the coaches were able to bring up each of their individual interests, but also come up with other challenges they may have faced within this theme. The first author and the coaches decided which “main topic” would be covered at each meeting. In between each meeting, the coaches reflected on the next topic, and brought ideas, challenges, and prior knowledge to discuss during each meeting.

During the meetings, the first author only guided discussions when necessary by encouraging the coaches to share their knowledge, ideas, and issues related to pre-determined topics through asking questions to promote discussion (e.g., Has anyone experienced any challenges related to this topic? Do you have a strategy that has worked well for you?). She

allowed the coaches to guide the discussion for the rest of the meeting, as long as they remained on topic. A majority of the discussion in each meeting revolved around the main topic; however, the coaches were also able to present immediate coaching dilemmas they were facing, and were able to receive feedback on those issues regardless of their link to the pre-determined topic.

Approximately 30 minutes were set aside each meeting to address the coaches' immediate dilemmas.

The coaches attended between six and eight of the eight scheduled meetings (Lisa=8, Eddie=7, Kathy=7, Dave=7, Randy=6). Additional impromptu gatherings occurred between individuals throughout the study; however, the first author was unable to obtain an accurate number. For example, the coaches communicated with one another through an online discussion platform (Basecamp.com), email, and in person while coaching and spectating at the soccer club. Basecamp is an online discussion and collaboration platform, and its use allowed the coaches to easily communicate between meetings, and to share ideas, challenges, tools, or documents.

Additionally, it is during this phase that the stages of reflection and action on lived experience occurred. At the beginning of each meeting, the first author asked the co-researchers to reflect on the progress of the study and to provide feedback regarding the CoP initiative. During the first five meetings, the co-researchers indicated that they were happy with the CoP's design and the felt they were benefitting from their engagement. During this time, they identified a need to put forth a greater effort to engage in meaningful reflection and discussions to promote their learning in between meetings, and adjusted their behaviour accordingly. After the sixth meeting, the first author and the coaches felt it might be beneficial for the coaches to begin facilitating the meetings themselves. As a result, the last two meetings were facilitated by two of the coaches in the CoP (one coach facilitated each meeting).

The first author attended all scheduled meetings (which were audio recorded), and documented observations. The purpose of the observations was to provide another source of data in an attempt to validate the findings, and to afford the researcher additional information with which to ask probing questions during the second interview. In addition, the first author checked in with each coach throughout the study to obtain his or her thoughts and reflections on the study's progress. These discussions also provided additional information with which to ask probing questions during the second interview.

Phase 4: Second interview. Once the CoP scheduled gatherings ended, the first author conducted a second round of individual interviews with each coach (also via phone and audio recorded). The purpose of these interviews was to gain an in-depth understanding of how the coaches were influenced by their participation in the CoP. Interview questions were intended to help coaches reflect on what value was created (e.g., Can you discuss your participation in the group this past season? Has your participation made a difference to your practice/life/context? Has your participation changed your or other stakeholders' understanding and definition of what matters?). See Appendix B for the full interview guide (Interview Guide 2).

Phase 5: Respondent validation. Originally, the first author and the coaches had planned to conduct a focus group to validate the final research report. However, due to participants' busy schedules at that point in time, this could not be arranged. Instead, the participants were sent the final research report along with a summary of the findings, and were encouraged to provide feedback and validation. Four participants responded with feedback, and the first author set up a time to speak with each of the coaches individually. During each discussion, the first author and the coach critically discussed his or her feedback and mutually agreed upon changes to be made to

the document. Based on these discussions, minor modifications were made, but overall the coaches felt that the findings accurately illustrated their experiences of participating in the CoP.

Data Analysis

The interviews were transcribed verbatim (188 double spaced pages), and then uploaded to a data analysis software programme (N*Vivo 10; Qualitative Solution and Research, 2012). Given the purpose of the study, the authors decided to conduct a theoretical (deductive) thematic analysis using Braun and Clarke's (2006) six-phase thematic analysis procedure: (a) becoming familiar with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report. The analysis was guided by the VCF (Wenger et al., 2011).

The first author completed the data analysis. First, she became familiar with the data: she conducted each interview, listened to the interview for a second time, transcribed each interview, and then read the transcripts. Next, initial codes were generated for each transcript by highlighting meaningful quotes on a printed version of each transcript, before uploading the transcripts into N*Vivo and generating additional codes. Codes were then sorted into potential themes. In line with a theoretical approach, the initial codes were based upon the key indicators noted in Wenger et al.'s (2011) VCF. After she completed this, the second author reviewed the themes that were created, and provided feedback on the analysis process, suggesting to create additional themes or to combine existing ones, as well as affirming that quotes fit within their themes. The first author then further reviewed and refined the themes by creating or combining themes. Finally, themes were defined and named according to the five cycles in Wenger et al.'s VCF, and the research report was produced.

Steps to address trustworthiness included respondent validation of participant interviews, which has been suggested as an important method for soliciting feedback regarding data, as well as the study's conclusions (Maxwell, 2005). In addition, data were generated with a number of individuals and through a variety of methods (known as triangulation; Maxwell, 2005). The first author also kept a "Researcher Reflective Journal," which assisted the researcher in developing an awareness of how her behaviours could influence the participants, and thus, allow her to adjust her behaviour accordingly throughout the study (Janesick, 2011). The first author wrote in her journal after every interaction or activity with the present study's coaches. This allowed her to reflect upon her previous experiences conducting inquiries that explored the implementation of CoPs, and to consider how her prior knowledge and actions might influence the coaches' learning.

Findings

Given that this is the first study to our knowledge to examine the value created in a CoP using Wenger et al.'s (2011) VCF, the findings are presented in five sections according to the five cycles of value in Wenger et al.'s (2011) VCF. Quotations presented here were selected for clarity, in line with the goal of illustrating value creation in the different cycles of the VCF.

Cycle 1 – Immediate Value: Activities and Interactions

Participation in a wide variety of activities stemmed directly from being a CoP member. In addition to the scheduled group meetings, the coaches indicated that their participation in the CoP inspired them to engage in discussions with others on their own time – this included group members, as well as other coaches, staff members of the organisation, and parents. During interactions both inside and outside of the scheduled meetings, the coaches' activities included discussing a variety of coaching concepts and issues. The coaches were able to share their coaching beliefs and practices in addition to hearing others' perspectives on various topics

related to coaching. Randy stated, “I think the value with this isn’t necessarily just the information; it’s the interaction; it’s the face-to-face interaction; I think that’s a big benefit of this.” He felt that this type of interaction was fun and provided him with opportunities to hear other coaches’ perspective. Randy also highlighted that he did not engage in face-to-face interactions (focused on becoming a better coach) with others prior to participating in the CoP. Appreciating the experience, Lisa said, “the process, the experience, the reflection in the moment was one of the most important benefits for me and was worth the time.”

All five coaches highlighted that they thoroughly enjoyed engaging in discussions with group members, and even felt inspired by the meetings. The coaches felt motivated after the meetings to continue learning and to attempt to change their coaching practices. In addition, they appreciated the opportunity to get to know each other better.

The coaches revealed that when they shared their coaching practices and beliefs, they received recognition and affirmation when other members shared their perspectives or exhibited similar coaching practices. Randy discussed this benefit when he remembered realizing that he was not alone in his approach to coaching:

There’s a piece of isolation to [coaching]. You have your own ideas, philosophies, and what you do as a coach. You build them up over the years. So when you get together and hear that other coaches are doing the same thing, that confirms and affirms what you do, and that’s a great feeling.

Cycle 2 – Potential Value: Knowledge Capital

Personal assets (human capital). Throughout the coaches’ interactions, they were able to share ideas, strategies, and information related to coaching, and were therefore able to add their learning to their coaching repertoire for future use. Eddie stated:

I think the biggest thing with the CoP is that it just adds to your ‘toolbox’ as a coach. With every meeting, there were little things that I would pick up, either consciously or subconsciously, that are going to change the way I coach every time I’m on the field. Maybe there’s a situation I haven’t even been presented with yet, where it’s going to hit me and I’m going to remember a conversation we had in our CoP, where it’s like, ‘perfect, I can now apply this knowledge.’ And it’s just kind of sitting there waiting to be used. I think that’s a huge benefit.

Kathy also discussed this:

I think a lot of success in coaching comes from being prepared, and obviously [participating in the group] just enhances our ability to be prepared... to have more background knowledge in certain situations that we might encounter and feel comfortable because we’ve discussed the situation before it actually occurs.

This sharing of information led to the creation of other benefits. Eddie discussed the impact this had on him personally: “When I shared some of the things that I do as a coach, and other coaches said, ‘oh yeah, that’s a good idea,’ and have actually used those things, that definitely increased my confidence.”

Relationships and connections (social capital). The coaches highlighted the fact that they gained value through social relationships and connections formed within the group. Participation in the CoP provided them with opportunities to ask questions, and develop a shared understanding of athlete development and coaching practices. They continued these conversations outside of group meetings, and then shared their learning within group meetings. Randy discussed the importance of creating these connections:

[The CoP] has opened a line of communication between myself and the other coaches in the group, which I think is probably one of the more important pieces – being able to get other people’s ideas and perspectives, but also having a line of communication between those different perspectives. I think that is invaluable. I mean, we all knew each other, but we didn’t understand each other as coaches. Those relationships open up other dialogue. When I see them now we don’t really engage in small talk, our conversations are about coaching ideas and different pieces that relate specifically to coaching.

Conversely, Dave did not engage in discussions with other group members outside of the meetings. However, he did feel he could approach them if he needed their insight or feedback.

I did not encounter any significant issues related to coaching that I felt needed to be addressed, but I was very comfortable that if something did come up I would have brought it into the group. I think just knowing that I could do that was a good reassurance.

Resources (tangible capital). Each coach was provided with access to Basecamp.com. On this web-based platform, the coaches uploaded information, ideas, and inquiries, directly contacted other coach-members, and were able to download some of the group’s products, such as articles, links, and book recommendations. In addition, the first author and the coaches posted notes and ideas discussed during meetings so that they, along with members who could not attend, could reference them at a later time. Kathy stated, “coaches were able to upload different resources to Basecamp, and you [first author] obviously brought together some academic support and backup, that was relevant too, and shared some resources like the Wooden book and other articles.” In addition, the coaches discussed the benefit of creating the “Top 10” list, stating that

it was a useful reminder of various aspects of coach and athlete development that they should consider implementing in their coaching.

Collective intangible assets (reputational capital). Although the coaches did not feel this was a value they experienced, three of the five coaches discussed how this could be a benefit if they were to continue participating in the CoP during future seasons, and if they were able to encourage other coaches in the organisation to participate as well. For instance, the coaches felt that if they were to continue participating in the CoP, they could develop a collective voice in the soccer organisation and recognition amongst their peers, where other coaches and administrators may identify them as a knowledgeable group of coaches. They felt this could eventually lead to a relationship with the administration, in which they could align their efforts and provide valuable feedback to each other and other coaches in the organisation.

Transformed ability to learn (learning capital). Learning through interactions within the group helped the coaches realise that they can engage in critical discussions with other coaches outside of the CoP, and recognize that learning within the group could also be applied to other settings. The coaches discussed the impact that participating in the group had on their interactions with others, and how this led to an ability to learn in practical settings. Eddie was excited about the possibility of implementing a CoP in his work setting: “I have been thinking about how I could implement a CoP with my colleagues at work. It’s a huge opportunity to learn, whether it’s within coaching, business, management, or customer service. That’s something I’m interested in doing.” Other coaches discussed having a new perspective on social learning. They now view engaging in discussions with other coaches as learning opportunities, and are more comfortable with approaching peers to partake in critical discussions. Eddie highlighted this when he said:

I think I am more comfortable talking to another coach about something because I know that they are likely going through the same frustrations, challenges, or triumphs that I am as a coach. And the same goes with other situations outside of coaching.

Furthermore, three of the coaches noted that they were able to transfer certain learnings to other situations outside of coaching, such as parenting and work. Lisa, for example, thought that she would be able to use some of what she learned in the group to develop better relationships with her children, and to help them develop as people and as athletes. Randy discussed why he felt learning in the group would be transferred to other situations.

It's hard to change a perspective that's only going to impact one aspect of your life.

When I've learned or added something into my coaching, it definitely has a spin off onto the way I see things around me. Anything that enhances a perspective is something that changes all aspects of my life.

Cycle 3 – Applied Value: Changes in Practice

All five coaches reported making changes to their coaching practices based on interactions with other CoP members. This section is divided into two parts: changes to coaching practices and changes to learning capability.

Changes to coaching practices. Three coaches made a number of changes to their coaching practices. Dave, for example, was able to apply his learning throughout his coaching season. He implemented time management techniques to run his practices more efficiently, but he also tried to be more flexible in regards to changing things on the fly if he encountered issues. For example, he began setting up drills ahead of time to increase the activity time of his athletes, and recruited athletes to help their teammates stay focused during practices. In terms of being flexible, Dave stated:

Even though I had a [practice] plan in place, I expected it to change based on how many players showed up and if the drill was working or not. If it wasn't working, I identified it and adapted to my players and the environment. You have to think quickly and be able to change things. So, I thought the [CoP] helped me that way.

Participating in the CoP helped Dave realise that it was okay to make changes to his practice plan while in the midst of coaching, and provided him with some ideas and strategies for adapting his practice plans.

In addition, through discussions in the CoP Dave was able to implement new communication strategies with his athletes. "I realised you can't convey a message in the same way to two different age groups. I was able to adapt my approach and [change the way I communicate] with different aged athletes." Dave also discussed how he used a new approach when dealing with parents:

I had a bit of a problem communicating with the parents at the beginning of the season. But based on our group discussions, I was able to approach the situation in a more relaxed way. I took a step back, came home, relaxed a bit, and just wrote the email, and rewrote or reread it several times to make sure it was a very positive way to communicate.

Furthermore, Dave talked about being more observant in his coaching – taking a moment to step back, relax, and observe.

Eddie implemented a variety of new strategies in his coaching practices. He spoke about developing an awareness of his athletes and how to interact with them:

Based on our talk about the psycho-social-emotional development of athletes, I have implemented those ideas into some team activities. Also, talking about birth order and

how that influences kids – that’s definitely something I consider now, whether it’s birth order, learning disabilities, or family backgrounds. Those were things that I wouldn’t consider before now, but I’ve opened my eyes a bit more to those elements when I’m dealing with an athlete.

He also discussed how an increased understanding of communication styles and athletes’ preferences helped him apply various communication strategies in his coaching. When Eddie’s coaching staff used one communication approach, he was able to use a different approach to ensure that all learning styles were accounted for in the learning process.

Randy mentioned that there were a variety of little things he picked up from the group that he implemented with his team as a result of participating in the CoP. For example, he changed his approach to interacting with his athletes. Randy stated: “Discussions in the meetings definitely opened my eyes to how other people are doing things, and because of it I’ve changed some of the ways that I handle my players.” One way in which he changed included implementing a new structure with his team, one that focused on holding higher standards for his athletes in terms of professionalism. In addition, he began utilizing mental performance techniques: “We talked about visualization at length in [our meetings], and it’s something that I’ve implemented with [my athletes] this year. I’ve used it [visualization] before, but not at the same level [depth] that it was discussed in our meetings” (Randy).

The remaining two coaches had a more difficult time pinpointing specific changes they had made to their coaching practices. However, they both thought that participating in the CoP did in fact lead to changes in their coaching, but had difficulty providing examples. Lisa stated: “It has changed some of my behaviours in terms of being able to implement different things into my coaching, but I can’t think of anything specific at the moment.” Kathy, however, was able to

recall one change she had made due to hearing other coaches' perspective during meetings: "On the planning side, I was able to consider a broader view [while developing] the full season plan." Kathy alluded to the fact that she was able to incorporate a broader scope of athlete outcomes while developing her plan, and include them in her coaching goals for the season.

Changes to learning capability. The coaches also discussed making intentional changes to how they approached their own personal learning and development. The coaches felt that participating in the CoP increased their capability to learn, helping them engage in deeper discussions with others outside of scheduled group meetings (both members and non-members of the CoP). For example, Eddie stated: "I always knew that other coaches would love to talk about coaching, but if I'm talking to another coach, [the CoP] has broadened the questions I might ask other coaches to improve my own learning." Randy also noted how his conversations with others were affected by his CoP participation:

Without a doubt, participating in the group helped me engage in deeper conversations with others. If I see someone coaching something or implementing a tactic, I have no problem talking to them about what they're doing. Previously, I would have probably stepped back and watched more. I do it semi-regularly now. We talk about what it is they're doing and why they're doing it, and it just comes from the understanding I've gained, that coaches can talk to other coaches.

Randy discussed other interactions that were influenced by participating in the CoP: "When speaking with our technical director, I now pry and ask questions, such that I'm pulling out additional information that I can use as a benefit to me. I wouldn't have done that as much before."

Through discussions with other CoP members, Kathy changed how she engaged in personal development and started to observe other experienced coaches at work:

I've had discussions with coaches on other teams about topics we addressed during the meetings. I have also started to watch other teams, and am able to analyse performance and come up with various ideas for what should be the core focus for things that I do as a coach.

Additionally, Lisa and Randy mentioned that they pursued supplemental materials of learning due to discussions within CoP meetings. Topics discussed with other group members led to the realization that they would like to learn more about specific topics. As a result, they researched these topics online, and read books and articles related to them – they then shared this learning with the group.

Cycle 4 – Realized Value: Performance Improvement

Although four coaches discussed realized value, they provided fewer examples of how value was created within this cycle. Realized value was discussed in terms of noticing changes in their ability to interact and connect with athletes, improvements in athletes' outcomes, and benefits in areas outside of coaching.

Although Eddie was not able to provide a specific example, he stated: "I'm sure those skills and little tools that I've picked up have helped the athletes because it's improving my development as a coach. I'm sure that it has made a positive impact, but it's hard to reflect on that." Eddie also said that participating in the CoP had "helped with situations I've already had this summer, you know, with improving the athletes' overall experience." For example, Eddie felt he was able to more effectively communicate with his athletes and keep his athletes engaged and motivated for the duration of practices. Due to the more effective plan she created, Kathy felt

her coaching practices led to developing a broader scope of athlete outcomes. Dave, noticed that when he encountered issues with parents not picking their children up on time after practices or games, he was able to calmly discuss his expectations with the parents, as well as what their responsibilities were. As a result, he was able to quickly resolve the issue; the parents began arriving 15 minutes before the end of practice. He also mentioned that he was able to transfer some of his learning to his work life: “I take my time to listen a bit more. I am able to take that further step into really understanding what people are saying, what people want, and then I am able to make more effective decisions based upon that” (Dave). As a result of hearing other coaches discuss how they address certain issues, Dave learned that by listening more intently and collecting more information he was able to make more informed decisions.

Randy was also able to share concrete examples that illustrated the creation of realized value. He felt that his participation in the CoP helped with his coaching throughout the season. After discussing changes he made (i.e., focusing on professionalism with his athletes), Randy stated: “my players have definitely benefited from that.” For example, he noticed that his athletes started behaving more professionally – they started calling him Coach Randy despite his recommendation that they simply call him Randy (as they did in prior seasons), dressed more appropriately for games and tournaments, and conducted themselves more maturely while at their events. Furthermore, he noticed that his change in perspective led to creating realized value in his family life: “In terms of parenting, I think I am able to better separate on the field coaching versus being a soccer parent.” This helped him “leave it on the field” and not bring coaching into his interactions with his children at home, which he felt led to fostering better relationships with his children: “I think the biggest influence has been creating a better relationship with my kids.”

Cycle 5 – Reframing Value: Redefining Success

Four coaches were able to discuss how their participation in the group led them to redefine success and/or learning, and reframe their perspectives. The coaches reframed the importance of strategies and values in their personal development, as well as in the development of their athletes. In terms of personal development, Eddie noted: “[Participating in the CoP] hasn’t changed my understanding in terms of coaching, but it has changed my understanding of how I prefer to learn and the importance of collaborating with other coaches.” Eddie realised that he preferred to learn through social interactions, and that they were important to his development, whereas before, for him, these types of interactions were not an important source of learning. Randy also discussed how his perspective on interacting with other coaches was reframed. Instead of ignoring a chance to engage in conversations about coaching, he began embracing these opportunities to learn by approaching other coaches. This allowed him to begin integrating these types of learning situations into his personal development.

Kathy said that participating in the CoP helped her reframe her goals for athlete development. She realised that there were additional athlete outcomes that she should focus on as a coach. Kathy also discussed that her interactions within the group also helped her reframe her perspectives at various points during the year: “You get a little bit of tunnel vision going through the season. [The group] reinforced the need to think a little bit more broadly, to take a step back, take a deep breath, and look at things.” The wide range of discussion topics and shared experiences helped remind Kathy that there is a “bigger picture” of athlete development that is important to keep in mind. For Lisa, participating in the CoP led to expanding and broadening her goals for athlete development – a reconsideration of learning objectives:

I don’t have a different way of looking at coaching. I have the same philosophy, the same beliefs, the same core outcomes that I think are important, but I have expanded my

thinking in certain areas of coaching and realised there is more to it – more that I [can include] in my approach to developing athletes.

Randy also felt that the activity of sharing and discussing ideas and strategies in the CoP helped him take a broader perspective to coaching and athlete development:

I find that I spend time doing the same things over and over again. You develop your way of coaching, a way of understanding. Then, when you hear what other people are doing, how they're doing it, and why they're doing it, it kind of opens the door a little more. For example, we talked at length about building character, which has always been important to me, but the level that [the other coaches] were talking about it really opened my eyes to all the things I could be doing with my athletes.

Rather than simply focusing on developing the athletic abilities of his athletes, Randy discussed that he will now include other areas for development (e.g., psychosocial development, building connections, etc.).

Discussion

The purpose of the present study was to design and implement a CoP, and to explore the value created for coaches by participating in a CoP, using Wenger and colleagues' (2011) VCF. The findings revealed that participation in the CoP led to creating value within each of the five cycles of the VCF. By engaging in various activities (e.g., group meetings) and interacting with other coaches during the study (immediate value), the coaches were able to ask questions and were exposed to a range of useful resources, ideas, and strategies (potential value). From this, they modified existing strategies or applied new strategies in their coaching (applied value), and in some cases observed benefits resulting from those changes (realized value). Consequently,

four of the five coaches were also able to reframe or reconsider strategies, perspectives, and/or goals (reframing value).

Consistent with findings reported by Bertram et al. (2014), there was an unequal distribution of indicators for each cycle of value found within participants' transcripts. In particular, there was a steady decrease in the number of indicators for each cycle from immediate value through reframing value. However, as noted by Bertram and colleagues, what is important is that CoP members are able to benefit in relevant and meaningful ways regardless of the cycle in which they are creating value. Value in one cycle is not necessarily more important than value in any other cycle. Wenger et al. (2011) noted that different aspects or outcomes are likely significant to different people or stakeholders. For example, coaches might be more interested in solutions to coaching issues, while administrators might be more interested in individual and collective performance outcomes. Thus, employing the VCF allowed the participants and authors to highlight the fact that value creation was both relevant and meaningful given the coaches' individual needs.

Disparities between the importance placed on different cycles of value could be attributed to a number of elements. One variable is the context within which a coach performs, which will have a considerable impact on his/her coaching needs. Côté, Bruner, Erickson, Strachan, and Fraser-Thomas (2010) suggested that different types of coaches "require distinct knowledge and skill sets to meet specific athletes' developmental needs" (p. 78). In other words, athlete needs will dictate coaching knowledge, strategies, and behaviours necessary for successful performances. For example, a coach working with youth recreational athletes would likely require a vastly different repertoire of coaching knowledge and abilities than a coach working with adult elite athletes. Thus, while participating in CoPs, it is necessary for coaches to focus on

creating value in the cycles that will most benefit their coaching, which may vary depending on their coaching context, coaching knowledge, and athletes' needs. Although the participants in the present study all coached within similar coaching contexts, with only minor differences in their athletes' ages and the competition level at which they coached, what was perhaps more important was the role they played on the coaching staff. For example, two of the assistant coach participants experienced less applied and realized value due to the control they had over the coaching practice, which may have led the coaches to focus on the value created in different cycles. These differences highlight the importance of uncovering and recognizing the value created within each of the five cycles of the VCF, as understanding the value creation may lead to enhanced buy-in and engagement in the CoP.

Biography is another variable that has been highlighted by a number of researchers to play a significant role in learning (e.g., Bertram et al., 2014; Trudel, Culver, & Werthner, 2013). A person's biography is the sum of experiences from which he/she has learned, which has resulted in him/her becoming a changed person (Jarvis, 2009). Thus, there is a bidirectional relationship between the coaches and their learning – where all changes to their biography (i.e., learning) will influence their future learning. As a result, the coaches' biographies may impact how they engage in a CoP, as well as the importance they place on creating value in different cycles of the VCF. Therefore, one of the benefits of participating in a CoP is that learners can engage in highly personalized learning opportunities. For example, within this setting, coaches could seek advice and feedback on coaching issues they might currently be facing, and would have the opportunity to discuss topics that could help them implement new coaching practices or modify existing ones. As Bertram et al. (2014) noted, if CoPs are used for ongoing professional

development, then it is important for members to create a setting that encourages members to share and reflect on their individual learning needs, interests, perspectives, and objectives.

It is important to note two additional factors that might have impacted the findings of the present study. First, the length of the study may have impacted the value created by participating in the CoP. In particular, the duration may have limited the coaches' ability to turn potential value into applied and realized value. For example, the coaches may have created connections and/or gained knowledge during their participation, but did not have enough time or encounter a situation that allowed them to apply that value, and then realise the benefits. Collecting data into the following soccer season may have allowed the researchers to identify more indicators of applied, realized, and reframing value. Therefore, future inquiries should consider including an additional follow-up interview to further probe and generate data pertaining to changes they have since made to their coaching practices. The second factor seemed to be that two of the coaches in particular had a difficult time verbalizing the value they created by participating in the CoP. They highlighted that they were benefiting from their participation, but noted that they had trouble remembering or identifying specific examples of how their coaching practices had changed. However, this does not mean that they did not create value during the study.

In the learning literature, it is clear that learning is not always known. Jarvis (2006) called this incidental learning. Although the coaches in the present study could not verbalise some of their learning, that does not mean they did not learn strategies and begin implementing them. It simply means they may not have been aware of their learning or that they had used a piece of knowledge or strategy they learned in the group. Further, the authors believe that incidental learning may eventually lead to applied and realized value, but that it likely would not lead to reframing value. Creating reframing value involves a conscious effort to reconsider learning

objectives or the definition of success, and thus would require the learner to have an awareness of the learning that had occurred. This barrier also highlights a benefit of using the VCF (Wenger et al., 2011), in that it prompts learners to reflect on their learning, which may help them to become more aware of the value they had created while participating in a CoP.

The results of the present study revealed that CoPs intended to provide ongoing professional development for sport coaches could in fact be practical and effective. Future attempts to design and implement CoPs to enhance sport coach learning and development should consider two elements that appeared to contribute to the effectiveness of the CoP in the present study. First, those interested in creating CoPs should consider encouraging coaches to share leadership by facilitating meetings and organising the group's activities. Advising coaches to facilitate a meeting is not only encouraging them to be included in what matters, but it is also asking them to play a more critical role in guiding the group towards discovering what matters. Wenger-Trayner and Wenger-Trayner (2013) proposed distributed leadership for developing social learning capability within CoPs. Second, an online platform, such as Basecamp.com, should be considered to promote interactions between coaches and the sharing of resources. For the coaches in the present study, Basecamp was a space where they could share insights and ideas. Wenger et al. (2002) posited that these types of exchanges (e.g., emails, phone calls, or conversations) strengthen the relationships between members in a CoP, and that these informal interactions are key to the success of the community's scheduled meetings.

In conclusion, coach education researchers have suggested that ongoing professional development is a *key* element to becoming an effective coach, and have argued that CoPs (sometimes referred to as learning communities) facilitate ongoing development (Armour, 2010; Trudel & Gilbert, 2004). Wenger (1998) suggested that CoPs provide an opportunity for

practitioners to negotiate their learning and apply it to real-life practice. The findings of the present study suggest that the coaches engaged in this process by identifying coaching dilemmas and drawing on knowledge, experience, and creativity to create practical solutions to address those problems. The coaches' participation in the CoP provided them with meaningful and relevant opportunities to engage in ongoing professional development. As a result of their participation, the coaches felt that they had increased their coaching knowledge and coaching competencies. They were able to make changes to their previous coaching practices, which they felt led to an increase in their ability to enhance athlete development. Thus, it can be argued that CoPs are a suitable supplement to traditional coach education initiatives. Additionally, the authors found Wenger and colleagues' (2011) VCF beneficial for assessing the value created by the participants. It seems to have the potential to become an important tool for assessing the individual and collective outcomes that can be created through participating in CoPs. Although the length of the present study did not permit the authors to explore the collective value gained, the VCF provided a number of elements (e.g., value creation stories, key questions, value indicators, etc.) that allowed them to assess the individual value created by participating in the CoP. Future research, depending on the context and duration, should explore the creation of collective value, as well as individual value creation stories across the cycles.

References

- Armour, K. M. (2010). The learning coach...the learning approach: Professional development for sports coach professionals. In J. Lyle & C. Cushion (Eds.), *Sport coaching: Professionalisation and practice* (pp. 153-164). London: Elsevier.
- Barnson, S. C. (2010). Communities of coaches: The missing link. *Journal of Physical Education, Recreation and Dance*, 81(7), 25-29, 37.
- Bertram, R., & Gilbert, W. (2011). Learning communities as continuing professional development for sport coaches. *Journal of Coaching Education*, 4(2), 40-61.
- Bertram, R., Paquette, K., Duarte, T., & Culver, D. (2014). Assessing the value created through participating in a graduate studies community of practice. *Transformative Dialogues: Teaching and Learning Journal*, 7(1), 1-14.
- Bray, J. N., Lee, J., Smith, L. L., & Yorks, L. (2000). *Collaborative inquiry in practice: Action, reflection, and making meaning*. Thousand Oaks, CA: Sage.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Callary, B. (2013). Coaches create and sustain a community of practice. *PHEnex Journal*, 4(3), 1-13.
- Carter, A. D., & Bloom, G. A. (2009). Coaching knowledge and success: Going beyond athletic experiences, *Journal of Sport Behavior*, 32(4), 419-437.
- Cassidy, T., Potrac, P., & McKenzie, A. (2006). Evaluating and reflecting upon a coach education initiative: The CoDe of rugby. *The Sport Psychologist*, 20, 145-161.
- Cassidy, T., & Rossi, T. (2006). Situating learning: (Re)examining the notion of apprenticeship in coach education. *International Journal of Sport Science & Coaching*, 1(3), 235-246.

- Côté, J., Bruner, M., Erickson, K., Strachan, L., & Fraser-Thomas, J. (2010). Athlete development and coaching. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 63-83). London: Elsevier.
- Culver, D., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the potential for learning through interactions. In R. L. Jones (Ed.), *The sports coach as educator: Reconceptualising sports coaching* (pp. 97-112). London: Routledge.
- Culver, D., Trudel, P., & Werthner, P. (2009). A sport leader's attempt to foster a coaches' community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365-383.
- Deek, D., Werthner, P., Paquette, K., & Culver, D. (2013). Impact of a large-scale coach education program from a lifelong-learning perspective. *Journal of Coaching Education*, 6(1), 23-42.
- Fuller, A. (2007). Critiquing theories of learning and communities of practice. In J. Hughes, N. Jewson, & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 17-29). New York: Routledge.
- Gallimore, R., Ermeling, B. A., Saunders, W. M., & Goldenberg, C. (2009). Moving the learning of teaching closer to practice: Teacher education implications of school-based inquiry teams. *The Elementary School Journal*, 109(5), 537-553.
- Gilbert, W., Gallimore, R., & Trudel, P. (2009). A learning community approach to coach development in youth sport. *Journal of Coaching Education*, 2(2), 1-21.
- Gilbert, W. D., Lichktenwaladt, L., Gilbert, J. N., Zelezny, L., & Côté, J. (2009). Developmental profiles of successful high school coaches. *International Journal of Sports Science & Coaching*, 4, 415-431.

- Gilbert, W., & Trudel, P. (2006). Coaching and coach education. In D. Kirk, D. MacDonald, & M. O'Sullivan (Eds.), *The handbook of physical education* (pp. 516-539). Newbury Parks, CA: Sage.
- Heron, J. (1996). *Co-operative inquiry: Research into the human condition*. London: Sage.
- International Council for Coaching Excellence, Association of Summer Olympic International Federations, & Leeds Beckett University. (2013). *International sport coaching framework* (version 1.2). Champaign, IL: Human Kinetics.
- Janesick, V. J. (2011). *"Stretching" exercises for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage.
- Jarvis, P. (2009). *Learning to be a person in society*. New York: Routledge.
- Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. New York: Routledge.
- Jones, R. L., Armour, K. M., & Potrac, P. (2004). *Sports coaching cultures: From practice to theory*. New York: Routledge.
- Jones, R. L., Harris, R. A., & Miles, A. (2009). Mentoring in sports coaching: A review of the literature. *Physical Education and Sport Pedagogy*, 14(3), 267-284.
- Larocque, L. (2006). *Learning as a process of becoming within communities of practice: A multiple case study of moose hunters in northern Ontario* (Unpublished doctoral dissertation). University of Ottawa, Ontario, Canada.
- Lave, J. A. (1982). A comparative approach to educational forms and learning processes. *Anthropology and Education Quarterly*, 8(2), 181-187.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.

- Lemyre, F. (2008). La réflexion et les communautés de pratique pour faciliter l'apprentissage par expérience des entraîneurs (Reflection and communities of practice for facilitating coaches' learning from experience). (Doctoral dissertation). University of Ottawa, Ottawa, Canada.
- Li, L. C., Grimshaw, J. M., Nielsen, C., Judd, M., Coyte, P. C., & Graham, I. D. (2009). Use of communities of practice in business and health care sectors: A systematic review. *Implementation Science*, 4(27), 16.
- Mallett, C. J. (2010). Becoming a high-performance coach: Pathways and communities. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 119-134). London: Elsevier.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- Nelson, L., Cushion, C., & Potrac, P. (2006). Formal, nonformal, and informal coach learning: A holistic conceptualisation. *International Journal of Sports Science & Coaching*, 1, 247-259.
- Qualitative Solution and Research. (2012). *N*Vivo (Version 10.0)* [Computer software]. Doncaster, Australia: Qualitative Solution and Research.
- Rangeon, S., Gilbert, W., & Bruner, M. (2012). Mapping the world of coaching science: A citation network analysis. *Journal of Coaching Education*, 5(1), 83-108.
- Ranmuthugala, G., Plumb, J. J., Cunningham, F. C., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2011). How and why are communities of practice established in the healthcare sector? A systematic review of literature. *BMC Health Services Research*, 11(1), 273-288.

- Rynne, S. B., Mallett, C. J., & Tinning, R. (2010). Workplace learning of high performance sports coaches. *Sport, Education, and Society*, 15(3), 315-330.
- Saint-Onge, H., & Wallace, D. (2003). *Leveraging communities of practice for strategic advantage*. Boston: Butterworth-Heinmann.
- Saunders, W. M., Goldenberg, C. N., Gallimore, R. (2009). Increasing achievement by focusing grade-level teams on improving classroom learning: A prospective, quasi-experimental study of Title I schools. *American Educational Research Journal*, 46(4), 1006-1033.
- Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach-learner's perspective: Considerations for administrators. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 375-387). New York: Routledge.
- Trudel, P., & Gilbert, W. (2004). Communities of practice as an approach to foster ice hockey coach development. In D. J. Pearsall & A. B. Ashare (Eds.), *Safety in ice hockey* (Vol. 4, pp. 167-179). West Conshohocken, PA: ASTM International.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91.
- Wenger, E. (1998). *Communities of practice: Learning meaning and identity*. New York: Cambridge.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston: Harvard Business School.

- Wenger, E., Trayner, B., & De Laat, M. (2011). *Promoting and assessing value creation in communities and networks: A conceptual framework*. (Research Report No. 18). Ruud de Moor Centrum, Open University of the Netherlands.
- Wenger-Trayner, E., & Wenger-Trayner, B. (2013). *Leadership groups: Distributed leadership in social learning*. Retrieved from <http://wenger-trayner.com/resources/practice/disciplines-of-social-learning-leadership/>
- Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, 20, 198-212.
- Wilson, L., Bloom, G. A., & Harvey, W. (2010). Sources of knowledge acquisition: Perspectives of the high school teacher/coach. *Physical Education & Sport Pedagogy*, 15(4), 383-399.

Table 1

Coaches' biographies and coaching roles

Coach	Role in Soccer Club	Coaching Experience (Soccer)	Coaching Experience (Total)	Education	Team(s) Coached	Paid
Eddie	Asst. Coach	8 years	8 years	Bachelors in Recreation and Sport Studies: Sport Management	OPDL Team, 12 & 13 years old (girls)	Yes
Lisa	Asst. Coach	14 years	14 years	PhD in Sociology	U11 Tier 1 (girls)	No
Dave	Head Coach & Asst. Coach	15 years	15 years	2-yr Biotechnology degree & 3-yr IT Technical degree	U13 District Tier 2 & U11 Tier 2 (boys)	No
Randy	Head Coach	6 years	6 years (Plus 15 years as a strength & cond. coach)	Bachelors in Public Administration and Governance	U12 Tier 2, U8 rec, and U12 futsal (girls)	Yes ^a
Kathy	Asst. Coach	6 years	15 years	Bachelors in Commerce	U11 Tier 1 (girls)	No

Note. Athletes in the U4 through U8 age groups participate in recreation leagues within the soccer organisation. Athletes in the U9 through U12 age groups can participate in Tier 1, Tier 2, and Tier 3 leagues, which are competitive levels (Tier 1 being the highest competition level). Athletes in the U13 through U21 age groups can participate in one of five levels: OPDL (Ontario Player Development League; a regional league with teams across Eastern Ontario), Level 3 through 5 (local competitive leagues), and a recreation house league.

^aAlthough this was a paid position, the coach did not accept the salary and chose to put the money back into the club.

Appendix A

Interview Guide 1

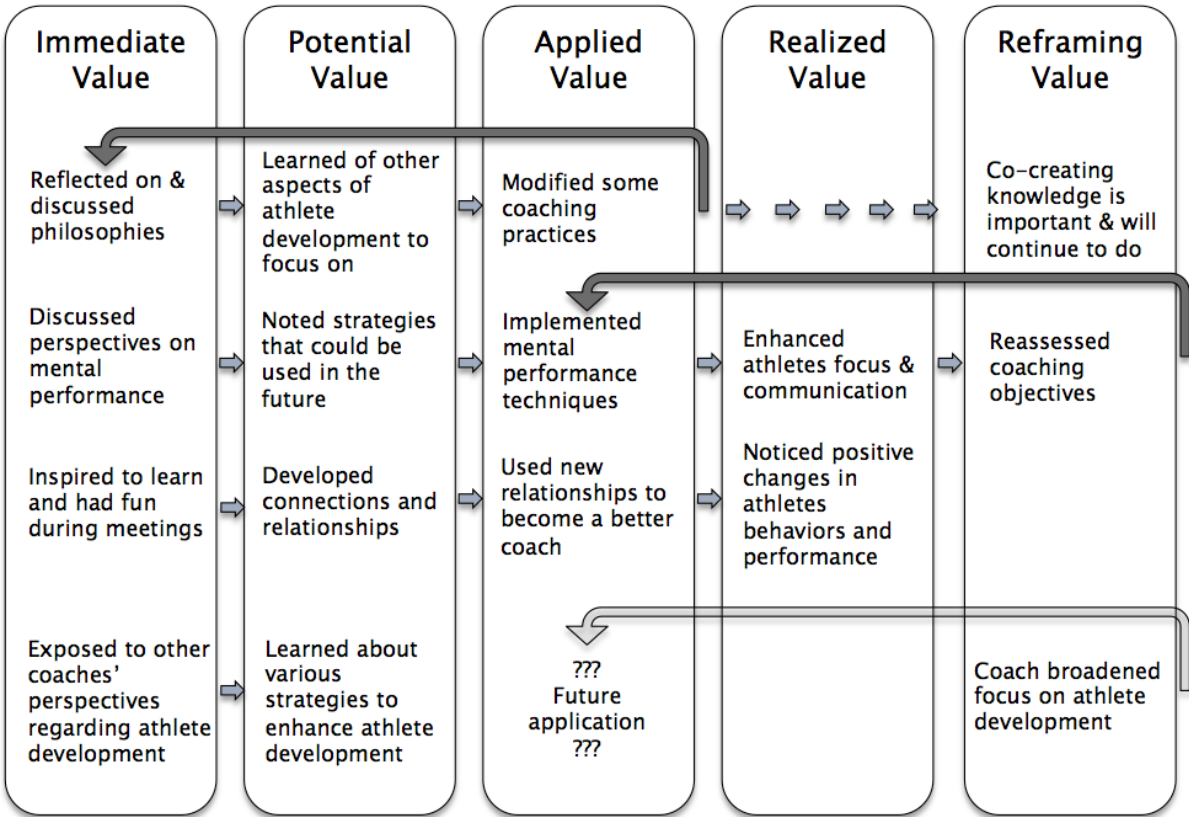
1. Can you please provide a brief overview of your biography?
2. How long have you been coaching in your current position?
3. What circumstances led you to coach at your current position?
4. After the first meeting where we discussed the design of the coaching group, do you have any thoughts or expectations about the group?
5. What are your expectations for participating in the group?
6. Do you think participating in the group will affect your coaching performance?
7. Do you think participating in the group will affect other aspects of your life?
8. What do you hope to gain or learn from the group?
9. Do you have any additional comments or thoughts to add?

Appendix B
Interview Guide 2

1. What are your overall perceptions of the coaching group?
2. Can you please discuss your participation in the group this past season? (Immediate and Potential Value)
 - a. What happened and what was your experience of it?
3. What has all this activity produced? (Potential and Applied Value)
 - a. Did you gain or learn anything from participating in the group?
 - b. How has your participation changed your social relationships?
 - c. Are there any tools or techniques that were developed through your participation in this group?
4. Has it made a difference to your practice/life/context? If yes: (Applied and Realized Value)
 - a. What aspects of your performance have been affected by your participation in the community?
 - b. What aspects of your life have been affected by your participation in the community?
 - c. Where have you used the products of the community?
 - d. Where did you apply a skill you acquired?
5. What difference has participating in the group made to your ability to achieve what matters to you or other stakeholders? (Realized Value)
6. Has your participation changed your or other stakeholders' understanding and definition of what matters? If yes, how? (Reframing Value)
7. Are there any strengths or positives about the group? If yes, what are they?
8. Are there any weaknesses or negative about the group? If yes, what are they?
9. How do you think the coaching group could be modified to better serve its members?
10. Do you have any other comments or thoughts to add?

Figure 1

Example of VCF and findings



Article Two

A University Sport Coach Community of Practice: Using a Value Creation Framework to
Explore Learning and Social Interactions

Bertram, R., Culver, D. M., & Gilbert, W. (submitted for review). A university sport coach community of practice: Using a value creation framework to explore learning and social interactions. *International Journal of Sports Science & Coaching*.

ABSTRACT

Coaches often identify social learning situations as the most valuable and influential to their learning. Thus, some have proposed implementing social learning initiatives, in particular, the community of practice (CoP) approach. The purpose of the present study was to explore how an existing coach CoP was created and sustained in a university setting, and to assess what value was created by participating in the CoP. Participants included four NCAA Division 1 coaches from a university in the Southwestern United States. Data collection included an individual interview with each coach. Interviews were analysed using Wenger, Trayner, and De Laat's (2011) Value Creation Framework. Findings revealed that the coaches created value within all five cycles of Wenger et al.'s framework. In particular, the coaches learned a number of coaching strategies, some of which they were able to implement, and as a result, observe benefits in their coaching and athletes' performance.

Key words: professional development, continuing education, high performance coach, social learning

INTRODUCTION

Researchers have suggested that coaching is both complex and dynamic [e.g., 1, 2], and highly context-specific [2]. In particular, the work of high-performance (HP) coaches, which includes elite and college sport coaches [2], has evolved and become increasingly more complex and demanding over the past few decades [3]. Therefore, sport coaches need to “be responsive to a dynamic environment in which there is, at times, limited control” [3, p. 121]. These trends raise an interesting question: How do HP coaches learn to perform effectively within such a complex and ever-changing environment?

The literature shows that HP coaches learn and develop through a variety of learning situations. Often, coaches report that they consider learning from other coaches among the most important learning experiences [e.g., 4]. When searching for solutions to coaching dilemmas, coaches highly value interactions with others, such as peers and mentors [5]. Indeed, coaches’ preference for learning through discussions with others seems to be a recurring theme in the coach education (CE) literature [e.g., 6, 7], becoming more valued as coaches gain experience [8]. Observing other coaches is also an important source of coach learning [e.g., 9, 10]. Regardless of the means, learning through social situations is important for developing coaching knowledge and skills. This is not surprising considering that one social learning theorist, Etienne Wenger, suggested that people learn by finding meaning in their work and by interacting with others [11]. Sport systems however do not rely solely on allowing coaches to learn through social situations, as many developed countries require coaches to attend CE programmes in order to practice coaching [12].

In the sport coaching context, CE programmes have been shown to stimulate initial interest and enthusiasm in coaches [7], create a useful learning environment for those with

limited athletic and coaching experience [13], and provide opportunities to meet and engage with others [14]. However, only a few studies have attempted to directly explore the impact of CE programmes on coaches' learning [15]. These studies have reported minimal lasting effects on coaches' long-term learning and development [16], coaching effectiveness [15], and reflective skills [17]. It has been suggested that this is due to the fact that coaches believe these programmes offer information that they already know [7, 16], the material covered is decontextualized from their practice, and too much information is covered in a short period of time [14].

In sum, research shows that CE has been limited in terms of developing effective coaches [2]. This highlights the need for providing coaches with context specific learning opportunities that allow them to address real-life coaching problems and focus on their individual coaching needs. Among the suggestions researchers have proposed for changing and supporting CE initiatives is the Community of Practice (CoP) approach. This approach has gained attention within the CE literature in recent years [e.g., 18, 19], and seems to be a platform that supports coach learning and development by allowing coaches to engage with other coaches in a context-specific learning environment.

COMMUNITIES OF PRACTICE

A CoP has been defined as a group of people who share a passion or concern, and who interact on an ongoing basis in an attempt to deepen their knowledge and gain expertise in their area of interest [20]. The approach is one that focuses on learning as social participation, in which people learn while negotiating meaning through their interactions with others and their practice. There are three modes in which members belong to a CoP: (a) engagement, (b) imagination, and

(c) alignment [11]. *Engagement* is the active involvement in a CoP. *Imagination* refers to the process of expanding one's self through space and time, and creating new images of one's self and the world. The process of *alignment* is observed when members coordinate their energies, practices, and actions, and as a result become connected. Moreover, while members are engaged in a CoP, their interactions will be influenced by three components: (a) mutual engagement, (b) joint enterprise, and (c) shared repertoire [11].

The first dimension, *mutual engagement*, refers to the fact that members are engaged in actions that are negotiated together, and that their practice does not simply exist in tools or books (i.e., the members are interacting on an ongoing basis and engaging in their practice). *Joint enterprise*, the second dimension, suggests that CoP members manage situations in pursuit of a common purpose (i.e., gaining knowledge and expertise in a specific domain or area). The third dimension, *shared repertoire*, refers to the community's ways of doing things, which have become a part of its practice (i.e., the community has produced or adopted routines, concepts, tools, or stories) [11].

In domains such as business, teacher education, and healthcare, researchers have explored the use of CoPs as a means to enhance practitioners' expertise and performance [21]. Among a number of findings in these fields, CoPs have proven useful for improving teaching practices [22], facilitating the transfer of knowledge into health care professionals' practices [23], and helping business professionals gain access to expertise and retain knowledge [24]. Considering the benefits observed in other domains, it is not surprising that there has been increasing interest in CoPs in the sport domain.

Sport coaching researchers have explored CoPs in a handful of contexts including youth baseball [18], karate [25], alpine skiing [26], figure skating [27], and high school sport [25, 28].

Researchers found that coaches saw value in focusing on the process of coaching and speaking with other coaches (in a group that resembled a CoP) [29], acknowledged the importance of knowledge sharing with others in the CoP [25], learned through engaging in the CoP [26], and distributed knowledge throughout the CoP [18]. It has been suggested that the success of a CoP depends on changing the sport culture from one that focuses on competition, to one that emphasizes knowledge development [18], in addition to ensuring the long-term commitment of a leader (i.e., facilitator) [30]. Despite these inquiries, our knowledge about how to effectively implement CoPs within sport coach settings, as well as our understanding of how coaches are influenced by their participation, is still very limited. Moreover, researchers have yet to explore the full range of potential value to coaches participating in a CoP.

VALUE CREATION FRAMEWORK

In an attempt to provide researchers and practitioners with a comprehensive tool that might assist in promoting and assessing value creation in CoPs, Wenger, Trayner, and De Laat [31] created the Value Creation Framework (VCF). Wenger and colleagues [31] propose that the VCF is useful across a wide range of contexts, and that it allows CoP members to explore value creation by sharing stories that illustrate their experiences in the CoP. As per the VCF, value can be created within five cycles: immediate value, potential value, applied value, realized value, and reframing value.

Immediate value is value that members benefit from instantly (e.g., enjoying themselves, receiving affirmation of practices). Wenger et al. [31] argued that interactions and activities have value in and of themselves. *Potential value* refers to value that has the possibility of being produced in the future (e.g., learning strategies to apply to future situations). Wenger and

colleagues [31] further divided potential value into personal assets (e.g., a useful skill or piece of information), relationships and connections (e.g., the ability to ask questions or knowing who is good at what), resources (e.g., access to documents, tools, or information), collective intangible assets (e.g., gaining a reputation or recognition as a group), and transformed ability to learn (e.g., using learning from the CoP in other situations or settings). CoP members experience *applied value* when they make changes to their practices, actions, or approaches (e.g., implementing new coaching strategies). When these changes lead to an improvement in performance or the achievement of goals, CoP members and sport organisations experience *realized value* (e.g., observing positive outcomes). Finally, *reframing value* is achieved when CoP members reconsider their definition of success and/or learning objectives (e.g., reassessing indicators of athlete development). Although each cycle defines a spectrum of value that can be created within it, Wenger and colleagues [31] noted that it is important to “not assume a hierarchy of levels or a simple causal chain” (p. 21) between the various cycles. Thus, one cycle does not necessarily lead to the next; nor is success defined by reaching the final cycle. Bertram and colleagues [21] suggested that the term *type* be used instead of *cycles*; Wenger et al. [31], however, noted that: “Learning is not a linear process with distinct phases of production and application of knowledge” (p. 21), but is instead a dynamic process where producing and applying knowledge is tightly wound and sometimes indistinguishable. Therefore, the authors felt that the term *cycle* was appropriate, considering that creating value is in fact a cyclical process, where the CoP member can intentionally move through the cycles when needed, or can move back and forth between aspirations and conditions that might enable learning within a cycle.

Along with delineating the five cycles of value creation, Wenger and colleagues [31] included in the VCF a number of tools that can assist in identifying the value that is created

through participating in CoPs. For example, the VCF includes a comprehensive list of value indicators, key questions to ask throughout an inquiry, and value creation story templates that assist CoP members in reflecting upon their experiences. Bertram, Paquette, Duarte, and Culver [21] argued that the VCF could be an effective tool that sport CE researchers can use to explore the individual and collective benefits gained by participating in CoPs. However, the value creation framework has yet to be used within sport settings.

Given recent efforts to professionalize coaching [e.g., 12], it is surprising that CE researchers have not yet explored the use of coach CoPs in university sport settings, where many coaches are employed. In order to address the current gaps in the literature, the purpose of the present study was twofold: (a) to explore how an existing coach CoP was created and sustained, and (b) assess what value was created by participating in an existing sport coach CoP.

METHOD

BASIC INTERPRETIVE QUALITATIVE STUDY

A basic interpretive qualitative method was used in the present study. In this type of inquiry, “the researcher is interested in understanding how participants make meaning of a situation or phenomenon” and the “meaning is mediated through the researcher as instrument” [32]. This methodological approach encourages the researcher to use interviews, observations, or document analysis to explore recurring patterns or common themes that emerge from the data [32], and has been used before in sport to explore coaches’ perceptions of the impact of participating in a coach education programme [e.g., 33]. Because of its flexible nature, the authors felt this was appropriate approach, which allowed the authors to conduct an in-depth exploration of how participants engaged in and benefitted from participating in a CoP.

DATA COLLECTION AND PARTICIPANTS

The first author searched for CoPs that currently existed in sport settings, leading to an organisation that supports female university sport coaches in their coaching endeavours: The Alliance of Women Coaches. Its goals are to increase the number of women head coaches in all National Collegiate Athletic Association (NCAA) divisions, to expand career opportunities for women coaches at all levels, and to achieve equal compensation for women coaches [34]. The organisation holds an annual conference for female coaches at the university level, called The Huddle, as well as monthly webinars, and two NCAA Women Coaches Academies per year (WCA; weeklong educational training sessions). At the Huddle and WCA, staff members promote social learning groups, which they have coined “Loop Groups,” referred to as LGs moving forward. These groups are intended to promote the learning and development of female coaches in their university sport settings, as well as to support them in the challenges they face as female coaches. In order to determine if LGs could also be called CoPs, the first author contacted a staff member (Julie) at the Alliance. The initial phone interview included questions such as: What is the purpose of LGs?; Can you describe how people participate in the LG?; Does participation in the LG influence the members’ learning or coaching practices?.

During the interview with Julie, it was clear that the characteristics of the LGs aligned with those of the CoP approach, as defined by Wenger (1998). The coaches in the LGs met regularly (mutual engagement), with the intention of becoming better coaches and supporting each other (joint enterprise), and as a result, they produced documents, tools, and coaching strategies (shared repertoire). Julie then agreed to forward a recruitment email to eight female coaches who had initiated LGs at their respective universities. Five of the coaches (each at a

different university) responded to the recruitment email, indicating interest in participating in the study. For the purpose of this paper, the authors decided to report the findings from one case, which they felt represented the remaining four LGs, thus allowing for a more in-depth portrayal of a university coach CoP.

One phone interview was conducted with the initiator of the group (Candice, an Associate Head Coach). After learning more about the study, providing informed consent, and participating in the individual interview, Candice agreed to send out the recruitment email to other LG members at her university. The LG at this university included 15 head and assistant/associate coaches, four of whom were willing to participate in the present study; however, all females who worked in or with the athletic department were invited. The LG was only available to female employees who worked in this context.

The three additional individual telephone interviews were conducted with a Head Coach, and two Assistant Coaches. The interviews averaged 58:10 minutes (ranging from 33:03 to 84:52), and resulted in 113 double-spaced pages of transcripts. See Table 1 for the participants' biographies. The participants have been given pseudonyms to ensure anonymity.

Table 1. Coaches' Biographies and Coaching Roles

Coach	Coaching Role	Years current coaching position	in Education
Candice	Associate Head Coach	4	Bachelor's in Criminal Justice
Lisa	Head Coach	11	Master's in Physical Education / Sports Administration
Marissa	Assistant Coach	3	Bachelor's degree in Physical Education
Heather	Assistant Coach	1	Master's in Teaching and Teaching Credential

DATA ANALYSIS

The transcribed interviews were uploaded to the data analysis software programme N*Vivo 10 [35]. Data analysis included both inductive and deductive processes, and followed Braun and Clarke's [36] thematic analysis six-phase procedure. The six steps include: (a) becoming familiar with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report. The first author familiarised herself with the data, and generated initial codes and themes for each transcript, which included themes that were created inductively as well as themes that were created theoretically based upon the VCF. The second author then reviewed the themes that were created, and provided feedback regarding the analysis process, suggesting to combine a few themes and create additional themes. For example, the themes "changes to time management during practice" and "changes to communication strategies during practice" were merged into the theme "changes to coaching

practices.” Then, the first author further reviewed and refined the themes. Finally, the themes were defined and named, and the research report was produced.

Maxwell [37] suggested that member checking is an important method for obtaining feedback regarding data collected and study conclusions. This method was employed to contribute to trustworthiness; the participants were asked to review their transcripts before data analysis to allow them to modify or add to their original responses. Additionally, the authors discussed and agreed upon the best quotes to represent each cycle of value within the present paper. Maxwell [37] further argued that an important validity threat is researcher bias. He suggested that researchers should attempt to understand how their particular “values and expectations influence the conduct and conclusions of the study” (p. 108). In an attempt to address this concern, the first author participated in a bracketing interview conducted by the second author prior to collecting and analyzing the data. The first author also kept a Researcher Reflective Journal [38] with the intention of developing an awareness of how her behaviours might influence the participants throughout data collection, as well as the analysis and interpretation of the data.

FINDINGS

The findings are organised in seven sections: the genesis of the LG, the five cycles of value in the VCF [31], and additional findings. In nearly all instances, the opinions of one coach were shared by at least two, if not all three, of the other coaches. Therefore, selected quotes were chosen to represent each of the five cycles.

THE GENESIS OF THE LG

Candice attended the WCA, where she and other coaches were provided with information about LGs and encouraged to create one at their respective universities:

I thought it was a great idea. So, I brought it back [to my university]. I wanted to include every female coach in my university, as well as administrators, academic advisors, anybody who's involved in athletics that works with us.

Lisa reported: "Basically, Candice approached me with the idea and said, 'I'd really like to do this LG, and I would really like you to be involved.'" Then Candice took the initiative and started the group. She sent out an email to all females within the athletic department and said, "We want to start this thing called a LG, and if you can come, 8:00am in the morning, we won't take longer than an hour. Just show up at softball and we'll go from there." Candice noted: "We had a pretty good turn out. I was shocked. We had swimming, track, and golf, they all came out. It was much better than we had thought." From there, the group picked up steam: "I thought it would fizzle out, because a lot of times people try to do things and they don't last. But with us, it seemed like every week people were talking more and asking more questions."

CYCLE 1 – IMMEDIATE VALUE: ACTIVITIES AND INTERACTIONS

The coaches participated in a wide variety of activities stemming directly from being a member of the LG. The main activity included participating in a scheduled 1-hour meeting once per month during the academic year. The meetings were broken into two 30-minute segments. The first 30 minutes involved discussions regarding a pre-determined topic related to coaching (e.g., recruiting, communication, motivation, etc.). The next 30 minutes comprised checking in with each other: asking how everyone was doing, and addressing any immediate coaching dilemmas the members were facing. Attendance for each meeting ranged from 10 to 15 female coaches. The initiator of

the group (Candice) took the lead and facilitated the meetings. However, she often asked and encouraged other coaches to take the lead and facilitate meetings regarding specific topics in which they were competent. An assistant coach (Heather) was in charge of organising the meetings, which included scheduling the meetings, disseminating pertinent information, and sharing documents and tools with the group members.

As a result of participating in the scheduled meetings, the coaches also engaged in smaller group and one-on-one discussions with other members of the LG, as well as with other coaches and staff members at their university and the Alliance. During both scheduled and impromptu interactions, the coaches discussed a number of coaching concepts and received support and encouragement from their peers. The coaches stated that they enjoyed these interactions. They described feeling happy, appreciated, valued, positive, and encouraged as a result of their participation. The coaches also mentioned feeling part of a community and that others cared about them and their goals.

“I really enjoyed it. It was a great part of my day and it made me feel good. Even if I didn’t say anything in the meeting and just observed, it felt good.” (Heather)

“When you get together and you’re having a positive, good conversation, and you’re learning, people really feed off that. They want it.” (Marissa)

“They’re happier. They felt like others cared about what was going on with them.” (Lisa)

The coaches highlighted that they received affirmations and recognition when they shared their coaching practices and philosophies. This led the coaches to feel more confident in themselves and their approaches to coaching: “Just knowing that other coaches in other sports are doing the same thing makes me more confident... that what I’m doing is good” (Candice).

This, paired with the realization that others experienced similar challenges led the coaches to feel a sense of belonging, empowerment, and camaraderie.

It sounds cheesy, but I learned that I'm not alone. We had a great year, but we also had a lot of challenging issues come up. It makes you think you're by yourself; you're the only one with players who are causing these issues. There are little things that, of course, will happen. But, it felt like, 'gosh, why is our team so different? Why are the other teams getting along so well.' Then, you actually sit and talk in a safe zone like this, and you realise you're really not alone. (Heather)

In this setting, they then felt able to discuss issues they might not bring up with others: "You feel like you're in a safe space, and I don't know if it's just because it's all women, and you're kind of fighting some of the same battles, but you definitely feel safe to discuss anything" (Heather).

CYCLE 2 – POTENTIAL VALUE: KNOWLEDGE CAPITAL

Personal Assets (Human Capital)

Being a member of the LG allowed the coaches to share information, ideas, and strategies; and to discuss challenges and potential solutions related to coaching. The coaches added these assets to their coaching repertoire so they could use them in the future. Marissa stated: "The loop group has taught me techniques, coaching philosophies, different views, how a coach coaches, and different ways to handle different athletes. And not just in my sport." Heather spoke about the importance of hearing other coaches' perspectives when it came to challenges that she faced. In addition, she appreciated that she had access to other experienced coaches within the group who she could approach to discuss coaching ideas and strategies. Similarly, Lisa discussed the value in sharing a variety of ideas, strategies, tips, and perspectives – all the way from coaching techniques to

good restaurants to eat at while travelling. For example, while in Kansas City, Tamara's basketball team visited the Kansas Baseball Hall of Fame. When Lisa's softball team was scheduled to play in Kansas City, Tamara suggested she take her team there as well: "They said it was really neat. So we ended up going, and it was fantastic. I would have probably never known about it if they hadn't told us."

In terms of learning, Candice noted: "I've learned more than I ever have learned, just outside of X's and O's." She also discussed gaining confidence: "I've been more confident this year. It's reassuring to know I can call and lean on others, and I'm not burdening them. It feels good to know that I can speak with someone about this stuff."

Relationships and Connections (Social Capital)

The coaches stressed the importance of the relationships that they made with other coaches in the LG. They felt that these connections provided them with invaluable access to coaching knowledge and experience. As a less experienced coach, Marissa felt that the connections she made within the LG were essential for her learning and development:

I would never have known the women's basketball coach. We're in the same season, we don't see each other, we don't talk to each other. This loop group has actually let me talk to her and get to know her, as a coach, as a woman, as part of the university. They are important connections for me to have.

Marissa indicated that the group allowed the coaches to get out of "their routine" and speak with the newer coaches: "This was great, because new and experienced can come together and get to know each other. Everybody is an equal in that room." Heather highlighted this as well: "It helped me get out of my bubble and learn from others. I didn't know if [other coaches] wanted to

take time out of their busy day. Being in the LG, I realised that they do want to have those conversations.”

The relationships and connections the coaches developed allowed them to realise where knowledge and expertise were located within the LG. Lisa stated: “We have a better understanding of who is good at what, and of everything that’s available at the university.” This helped the coaches know who to approach if they had an issue related to a certain topic, or wanted to learn more about a certain area of coaching. Lisa felt that these connections were invaluable for new coaches:

As a brand new coach, I would have given anything to have access to [a group] like this, to be able to ask questions, and not have to make all of the same mistakes. My first year out of college, I just had to go by trial and error, and there was probably more error than there was positives when I first started.

Resources (Tangible Capital)

Engaging in the LG encouraged the coaches to share a variety of different resources that they could apply in their coaching. For example, the LG inspired the coaches to share recruiting and coaching tools like “DISC” (a leadership survey), as well as articles and books related to a number of topics. Heather said that as the LG met more, the coaches would speak more frequently, ask more questions, and share more resources. After the meetings, Heather sent follow up emails: “I would get emails back saying, ‘I remember somebody mentioned what they did with their recruit on a visit; can they send me what they did?’ You saw all this sharing of information and documents.”

Collective Intangible Assets (Reputational Capital)

As a group, the LG gained recognition with others at the university. For example, the Athletic Director (AD) realised that if an issue from the group was brought to his attention, it was a significant issue that most of the female coaches were facing. The female coaches also gained recognition with the male coaches at the university: “The men are seeing that we have good ideas too. They are asking if they can be part of the group” (Lisa). Even amongst themselves, the female coaches realised that they were part of a bigger community: “I’m not stuck in my own little world. I can look at being a part of the university, not just my sport” (Marissa). Lisa stated: “It definitely goes beyond one or two relationships, and it creates more of a culture. And that culture is definitely positive.”

Transformed Ability to Learn (Learning Capital)

The coaches noticed that when one area of their life was impacted, it influenced other areas of their life as well. For example, Candice stated that, in general, her participation in the LG changed the way she coaches, and more:

I was stuck in my cubicle doing my own thing, trying to move forward, and not even thinking about doing these things. Julie and the Alliance, they’ve changed my life. Being in the LG changed the way that I coach, just as far as the way that I do things, and even the way I do things in other areas. It really was life changing.

CYCLE 3 – APPLIED VALUE: CHANGES IN PRACTICE

This cycle is divided into two sections: changes to coaching practices and changes to personal development.

Changes to Coaching Practices

The coaches reported making changes to their current coaching practices, implementing new coaching strategies and approaches to managing their teams, collaborating on community service projects with other coaches, and utilizing new recruiting techniques.

Candice said that she had received feedback on an issue that she had brought to the group, which she in turn immediately implemented into her coaching.

We were having a hard time dealing with one of our freshman, one of the most stubborn, hard-headed people. She just didn't listen. You tell her to go left and she'll go right, just to spite you. So, I called up the soccer coach and described the issue. She said, 'limit her playing time. If that doesn't work, don't worry about her in practice, ignore her and worry about the kids who want to be there. I know she's your most talented kid, but if you're constantly spending all your attention on her, you're going to lose the rest of your 15 kids.' So that's what I did. I let her do her thing. When she messed up I didn't critique her. I would just worry about the other kids, and stay positive. And it actually ended up helping a lot.

Candice discussed implementing new strategies in her coaching after the LG talked about communicating with a specific generation of athletes. She felt that techniques from 15 to 20 years ago were not effective with today's athlete: "What's a new technique we could use? For example, our softball coach brings them in at the end of practice and talks about one thing that inspired them. So, that's a communication technique we tried." Candice implemented this technique with the intention of keeping her athletes engaged for longer periods of time. Candice also began using videos as a motivational tool more frequently before important games.

Additionally, she and her coaching staff started a new tradition in an attempt to motivate athletes, following a discussion in the LG.

One thing we used is ‘the year of your team.’ So, how many years has your team been at [our university]? This year our team was Team 40; this programme has existed for 40 years. There’s never going to be another Team 40, so what do you want your legacy to be for this year? It was big. They all took pride in that.

The coaches also reported implementing new initiatives for their athletes that resulted from collaborations amongst coaches in the LG. Lisa stated:

Every sport does community service. So, I challenged all of the coaches [in our LG] to get with their athletes, and to come up with a t-shirt design that would represent women athletes at our university. We did one with Rosie the Riveter, and our design actually won. And now we’re getting together for a big BBQ within the first week they come back to school, and giving them all the shirts and asking them for a couple of different community service events. Instead of showing up in a basketball shirt, or a softball shirt, they will show up in this shirt and show solidarity of the women at our university. Now, we’re trying to take it a step further and get all of the women’s sports on board.

Additionally, Lisa reported that the coaches in the LG were working together to create an event intended to build relationships amongst the athletes at her university.

The coaches also discussed making changes to their recruiting practices. In particular, they worked together in an attempt to give recruits a better understanding of the university and the culture they have developed. Heather stated:

Recruiting at [our university] is not always easy. We had a couple of meetings about recruiting strategies and how can we help each other. It really helped what’s happening.

If we have a recruit, we will call one or two other coaches to meet with our recruit, and then they do the same. We'll have the equestrian coach call us and say, 'hey, we have a recruit, can you meet with them?' Now they're seeing that we are all connected and support each other. That was a big thing with us.

Changes to Personal Development

All four coaches discussed important changes they made to their personal development as a result of participating in the LG. Heather described making an effort to get out and speak with other coaches if she had encountered an issue in her coaching, or if she wanted to learn about a specific topic.

I always knew I needed to do a better job of putting myself out there and talking to people. This experience made me feel more comfortable doing that. Now I go the extra mile to go talk to somebody, whereas before, I was a little more timid.

Candice shared that she had been contacted by other coaches and asked about topics that were discussed in the LG meetings: "It's made us interact more and get out of our bubble. I've had some younger coaches call me to grab coffee and ask questions. I've [talked to] coaches who I've never heard from before." Participating in the LG also sparked the coaches' interest in different topics, which led them to pursue outside resources in an attempt to learn more. "Our talk about the IY generation led me to read 'IY' by Tim Elmore. It was really interesting. Then I shared that with the LG" (Candice).

CYCLE 4 – REALIZED VALUE: PERFORMANCE IMPROVEMENT

This cycle of value was discussed in terms of noticing improvements in different areas, such as communicating more effectively with athletes, having more patience, looking forward to going to work, and motivating athletes. Marissa highlighted that her participation in the LG had helped out in a number of ways, some that she was not even aware of: “It’s just brought so much. [The LG] has helped me out in areas that I’m not aware of, until they’re actually brought up.” Marissa noticed that her athletes were affected when other teams attended their competitions: “The girls step up. They feel important, like someone is taking notice in the community and university. [Everyone knows] football; sometimes it seems like no one knows us. It’s great when we see other teams in the stands.” For Marissa, participating in the LG also helped her benefit from getting out of her bubble, and engaging in something aside from coaching her sport: “It can be overwhelming with everything that we do. The group helps me step aside and do something different, and get that breath of fresh air and then I feel really rejuvenated and motivated.” In addition, due to receiving help from other coaches, she felt more proficient in using the recruiting tool available at her university and better equipped to communicate with prospective athletes: “This is a different generation...so, they helped me with that; on how to deal with the athletes and recruits of this generation.”

Heather stated, “You really do become a better coach and a better person. I think it’s really beneficial.” Furthermore, she realised that her connections with others were enhanced, and that she was able to feel comfortable approaching others:

[Participating] in the LG definitely helped me. When there was a topic I felt passionate about, or I felt like I had some insight, I shared and then they saw that I have some credibility, I have great ideas too. Then they come and talk to me about that, and vice versa. So, the next time you see them you can say, ‘I really liked what you said about that

topic, can you tell me more?’ and now that relationship is forming. I have really benefitted from those relationships.

Like Marissa, Heather benefitted from implementing new recruiting techniques, and from introducing recruits to other coaches at the university: “We’ve had great feedback. The recruits or their parents have said, ‘we loved meeting the softball coach, she was amazing to talk to.’ So, they see that we’re not just saying [things] because we want them here; they’re actually true.” For Heather, the changes she made in her coaching led her to observe changes in her athletes: “It helped with a few of my athletes. One in particular, our relationship got so much better. She turned around her academic performance and that started to transfer over to athletics because she was building better habits.”

Lisa discussed the LG’s ability to resolve issues that arose on the administrative side of coaching. The group was able to work together and tackle a problem they faced.

Last year our academic support staff totally turned over. We had to get our kids registered, but didn’t have anyone to send them to. So, I went out and rounded up information about the process. Then, in our LG meeting we talked about how we were going to do this... it really helped. We were able to get all our athletes in the right classes, and have them get degree audits... By us brainstorming what to do and how it works best, it gives us ideas, and then it makes our job much easier.

In addition, Lisa noticed that the coaches in the LG were much happier and more energetic during and after their LG meetings. She felt that this led the coaches to provide more feedback to the media and face-time within the community, which in turn inspired the community to support the women’s athletic teams at the university. Moreover, Lisa felt that collaborations and friendly competitions between the LG members led to an increase in community involvement amongst

the women's athletic teams: "We got more athletes involved in the community, and we helped bring about positive change." For Lisa, even things as simple as housing her athletes was easier due to being a member of the LG. She was able to pair up one of her athletes with an athlete from another team to ensure that she did not room with a non-athlete.

Candice noticed a number of benefits as a member of the LG; realised value for herself, her team, and the LG as a whole. For example, she stated: "yes, definitely, I have a lot more patience, a *lot* more patience. And communicating – I think the communication between my players and me, and my staff, has been 100% better." She also noticed that when other coaches and teams attended her games, she felt better: "I feel very good about myself...more involved and engaged. It fires me up as a coach, and makes me want to be better for my players and myself, and continue helping and supporting everybody else [at this university]." In addition, she realised that she had become less stubborn due to a better understanding today's athlete and the coaching strategies to deal with certain issues.

Candice also noticed changes in her athletes. As a result of implementing the team legacy (Team 40), she noted: "Just telling them, 'this is it, this is the last chance you have to prove yourself for the legacy of this team.' We won a game we shouldn't have. The girls really bought into it and were pumped up." She observed benefits that resulted from another strategy she utilised, which came out of discussing an issue she was facing with the "hard-headed freshman"; "It took a while, but eventually she would make eye contact with me and listen. She started to come around. Just little things like that helped." Additionally, she noticed that her athletes began to enjoy attending other teams' games. "They don't dread going to watch other teams anymore. They actually know their names and hang out with each other."

CYCLE 5 – REFRAMING VALUE: REDEFINING SUCCESS

This cycle of value was discussed in terms of realizing the importance of learning through social interactions, recognizing that coaches need to focus on their personal development and balance, and gaining a better understanding of what matters in terms of athlete development at the university level.

For Marissa, participating in the LG resulted in a shift in her mindset regarding coaching; it allowed her to see that coaching was a potential career for her: “I never thought of [coaching] as a career, but now I realised that it’s a career that is going to have an impact on my life, and that I enjoy coming to.” Heather reframed how she viewed interacting with others: “I learned about the power of getting out of your office. It helps get you out of that tunnel vision. You never know what you’re going to learn. That’s really important to me now.” She realised that, “you don’t have to attend a class or read a book, you can learn from other coaches, which is just as good or probably better because it’s real.” Throughout her interactions with other coaches, Heather also recognized that other aspects of athlete development are important.

I wasn’t big on community service. You just forget about it with the day-to-day; putting it off until the end of the year and then you have to scramble to get the kids to do it. Then there’s no value in it. Playing the game isn’t all that we’re supposed to do. It’s important to get out in the community and support the community that supports us. So we’ve changed how we think about that.

Heather also restructured her thinking in terms of supporting other coaches:

We think that everyone’s always got it together, because that’s what they show you, but maybe they need some [support]. I didn’t realise that people needed that type of support

because they have their staff, but maybe they need someone from the outside to say, ‘I’ve noticed that you’ve been stressed, how are you doing?’

Lisa mentioned that her experience in the LG allowed her to reframe how she viewed her team and department in the context of the university: “We can get so lost in our own lives... the little everyday tasks. The [LG] makes you aware of the bigger picture. We need to do better at focusing on all the different goals we have, and helping each other reach them.”

The participants also noticed that the coaches in the LG started to realise the importance of concentrating on their personal wellbeing in addition to their obligations as a coach. Lisa stated: “At one point, I didn’t have a single weekend off. If other coaches had recruits, I was meeting with them. I realised that I have to find a way to balance that out, but still be able to help.” Candice also discussed this:

You’ve got to worry about your wellbeing too. That’s something I never really worried about, I would just worry about my athletes and getting the wins, and getting them to graduate, and moving them on to a job. That was more important than myself... We always tell athletes, ‘networking, get to know everyone around here, friends for life,’ yet, we don’t do it ourselves.

For Candice, the concept of networking and learning through social interactions became an important element in her personal development. “Learning like this is more important to me now. It is 100% important, whereas before, I didn’t focus on it as much.”

MORE ABOUT THE LG AND SUSTAINING IT

In general, the coaches felt that participating in the LG was an excellent means for continuing to learn and develop as a coach. They stressed the importance of ongoing engagement with other

coaches at the university. All four coaches reported that one of the key factors that contributed to sustaining the LG was the role of the facilitator (Candice) and organiser (Heather). Together, they organised the meetings, sent out updates, and encouraged coaches to attend the meetings: “Candice definitely spearheads [the group]. She keeps me going, and with me going, everybody else stays involved in the group because I think I have a lot of information to give” (Lisa).

The coaches mentioned that another key element that keeps the LG going is the focus on learning and improving: “It’s important that we have a purpose. There should always be a reason why we’re meeting. Getting better and learning – that keeps us motivated to continue meeting” (Heather). Another factor was support from the sport administration in the department: “We’ve been getting a lot of positives from the AD. The AD thought it was great. He came and spoke to us. He loves the idea” (Candice). The administration’s interest in the LG led to alignment between the administration and the coaches: “It helps us get on the same page. They think what we do is great. I speak with him every so often about what we are doing in the group, then I bring some things back to the group” (Candice). In addition to the support from the university’s administration, the LG also received guidance from Julie at the Alliance of Women Coaches. Candice stated: “She’s 100% engaged. She spoke to our loop group, and she’s always available if I need anything. We struggled a little bit in the beginning. She gave us some guidance.”

There were a number of additional findings that emerged during the interviews. In terms of the culture within the LG at the university, Lisa reported: “If a departmental email goes out, sometimes people respond... When a LG email goes out, almost everybody responds, and they rearrange their schedule to attend, which shows it’s important to them... We have developed a really positive, supportive culture.” In addition, the coaches felt that the LG was a great way for

less experienced coaches to better understand the responsibilities that are required of coaches at the university level.

It's a great way to help new coaches figure out how to fulfill all the requirements for being a coach at a university. Otherwise it's like throwing them in the pool, and if they swim, great, they're going to be a great coach... if they don't swim, well, you just lost a great one out of the profession. Where, if they have a group like this, it's like [handing them a kickboard] to help them float. (Lisa)

The coaches also found it helpful having one person (Heather) in charge of collecting, filing, and distributing documents and tools created or shared within the LG. Heather noted that members of the LG would sometimes contact her after a meeting and ask to be sent documents or tools that had been discussed: "During the meetings people would bring handouts or articles, and I kept all those. So, if anyone ever lost or wanted something, they could contact me."

Although coaches did not report any obstacles or negatives that resulted from participating in the LG, they did discuss wishing that all female coaches at the university would participate. They also felt that they could meet more frequently and consistently: "The only thing I know that we need to do, is make sure we meet up a little bit more. We need more consistency, but it's hard sometimes with everyone's crazy schedules" (Marissa). Moving forward, Candice thought it might help to distribute some of the organising responsibilities amongst coaches: "When I'm in season she'll take over, and then when she's in season I will take over. Then we might be more consistent."

DISCUSSION

The purpose of the present study was to (a) explore how an existing coach CoP was created and sustained, and (b) assess what value was created through participating in it. The findings reveal that participating in LGs allows members to create value within each cycle of the VCF; Wenger et al.'s [31] VCF provides an effective means for exploring the value created by coaches' participation in a CoP.

To our knowledge, researchers have yet to explore CoPs within a university sport setting. From these findings, it is clear that CoPs, if implemented properly, can be an effective means for supporting ongoing learning and development in these settings. For the participants, engaging in the CoP provides them with opportunities to learn about topics that are not touched on in formal education settings, and to address real life coaching issues and administrative dilemmas. While Cushion and colleagues [4] suggested that there has been little discussion regarding the impact of participating in CoPs on coach learning and coaching practice, the present study provides evidence that CoPs can in fact provide impactful learning opportunities. The coaches' experiences while participating in the CoP enhanced their coaching knowledge and shaped their coaching practices. Moreover, a common critique of CoPs is that "the individual is marginalised and as a consequence individual difference is generally unaccounted for" [3, p. 130]. However, this was not the case for coaches in the present study.

The use of the VCF during the interviews allowed the coaches to produce and convey their individual stories, in which they reported an increase in coaching knowledge and enhancements in their coaching practices. Furthermore, it was clear that analyzing the data using the VCF provided a useful lens that allowed meaningful themes to emerge. Therefore, the VCF is a valuable tool for shedding light on CoPs members' individual stories and value creation, and

this framework should be considered for use in future studies. Further, researchers and practitioners might consider utilizing the VCF to design CoPs and to help CoP members reflect on how they might engage in the CoP in order to create specific cycles of value. For example, one might ask the CoP members, “what types of values would you like to create throughout your participation?” and “what conditions should we establish to create those types of values?” This is referred to as the aspirational aspect of the VCF and is intended to help CoP members imagine and plan for the value they wish to create [31]. In other words, the aspirational aspects allow researchers and practitioners to be strategic during the planning stages of creating a CoP.

As mentioned above, it has been found that coaches highly value learning through discussions with others [e.g., 7, 30]. However, Marshall [39] argued that among the many challenges faced by female coaches is the lack of mentoring opportunities and limited access to role models, which would arguably limit a coach’s ability to engage in meaningful discussions with others. Marshall and Sharp [40] suggested that CoPs could provide female coaches with opportunities to create mentorships, in which they could be exposed to broader perspectives and fresh insights.

The perceptions of the coaches in the present study revealed that the LG was a platform where female coaches could develop important relationships and mentorships; gain exposure to new ideas, perspectives, and insights related to coaching; and find female role models. The coaches reported that they, as well as others members of the LG, created mentorships within the LG and were able to engage in meaningful discussions with other female coaches. They did this through not only participating in LG meetings, but also by interacting with other members in smaller groups and in one-on-one meetings. An additional benefit was that the coaches were able to receive support while dealing with coaching issues during these interactions. The coaches

highly valued these interactions, and often were able to short cut the trial and error method of becoming a better coach. Wenger-Trayner and Wenger-Trayner [41] suggested that establishing these types of connections is essential to becoming a knowledgeable practitioner or, in this case, an effective coach.

Thus, learning to become an effective coach means developing both competency and knowledgeability within the context in which one coaches. Whereas competency is defined within a specific practice, such as coaching women's softball at a specific university, knowledgeability is defined across boarder settings, such as coaching in the NCAA system [41]. The relationships these coaches developed helped them establish a sense of "who was good at what," and therefore become aware of whom to approach if they required information regarding a specific topic. From this, it can be argued that implementing CoPs within the university sport setting not only helps participants combat some of the obstacles commonly faced by female coaches at their university, but it is also a place where they can enhance their knowledgeability, thus becoming more effective coaches.

The coaches also found the structure of the LG to be effective for fostering relationships among members, enhancing their learning, development, and coaching practices. In line with Wenger's [11] CoP elements, the main characteristics that contributed to these outcomes were: (a) coach commitment to continuous interaction with one another (mutual engagement), (b) coach passion about and dedication to improving knowledge and expertise, as well as supporting each other (joint enterprise), and (c) jointly developing solutions to coaching issues, tools, stories, and ways of doing things (shared repertoire). Further, the coaches' participation in the LGs resembled Wenger's [11] three modes of belonging. By actively participating in the LG (engagement), and through coordinating their efforts and forming connections with one another

(alignment), they were able to create new images of themselves (imagination). Thus, they were able to form new identities: they began to see themselves as competent coaches.

A contributing factor to sustaining mutual engagement in the LG seems to be the role of the facilitator (Candice) and organiser (Heather). In accordance with Culver et al. [18, 26] and Gilbert et al. [30], we found that the role of the facilitator was vital to the ongoing success of the LG. The coaches in the present study all agreed that the role of the facilitator was one that encouraged coaches to continually engage with the LG, and was important for gaining access to documents and tools produced by the coaches. Interestingly though, aside from one inquiry where the facilitator was considered an “insider” in the CoP [18], researchers have only explored the role of the facilitator as someone who entered the CoP as an outsider and/or expert from the field. In the present study, the initiator and facilitator was a peer within the group, untrained in the art of facilitating social learning. She created the CoP through collaborating with fellow coaches. It appears that the present paper presents a unique situation (only the second study in which this was the case), where an “insider” facilitator was able to instantly obtain buy-in from a number of coaches, and sustain this momentum throughout the entire academic year.

Two additional roles that contributed to the effectiveness of the LG existed. One was the role of “social reporter” (aka “organiser”; Heather). Wenger-Trayner and Wenger-Trayner [42] suggested that, “social reporters help their community generate a history of what happens” (p. 16), which was important for the continued learning of CoP members; and which arguably contributed to the mutual engagement of the CoP members. When coaches had questions, or needed access to documents and/or tools, they would contact Heather, and she would distribute the necessary information. This allowed coaches to continue learning and making changes or implementing new practices in their coaching.

The second role was that of “organizational broker.” In theory, more than one member could fulfill this role. Wenger-Trayner and Wenger-Trayner [42] stated that, “organizational brokers are custodians of the interface between the community and organization stakeholders. They are responsible for finding ways to align the community’s agenda, activities, and outputs with the organization strategies” (p. 21). One member, Candice, fulfilled this role. Candice often met with the AD and discussed the LG’s activities and outputs, and received feedback from the AD, which she then reported back to the LG.

It appeared as though these three roles (facilitator, social reporter, and organizational broker) contributed to the effectiveness and sustainment of the LG. As a result, all four coaches stated that they will continue participating in the CoP, and reported that other female coaches at the university would continue as well. At the time of producing this research report, the LG has continued into the following academic year; the structure remains the same, and coaches continue to gain similar value from their participation. Therefore, the LG at this university seems as though it will become a long-term initiative with a significant number of members. Future studies should consider the unique role of the facilitator as a peer, social reporter, and organizational broker, and further explore how these roles influence value creation, buy-in, and commitment from CoP members.

A limitation of the present study is the fact that, at the time of the data collection, the LG had existed for only one year. Thus, the last two cycles of value, in particular realized value, might not be evident until future coaching seasons. Participants discussed creating a great deal of potential value, which may be implemented in the future, eventually resulting in realized and reframing value. Furthermore, for the assistant coaches who aspired to one day become head coaches, although potential value was gained, they might not yet have had the opportunity to

realise this value because of their role as an assistant. The methods of data collection could be another limitation. Although the first author was able to conduct interviews with a number of LG members, she was not able to observe any LG meetings nor did she have access to all the LG members. Some coaches and stakeholders were too busy, or simply did not want to participate in the study.

CONCLUSION

In conclusion, researchers have suggested that CoPs can be an important platform for providing coaches with access to ongoing learning opportunities [e.g., 4, 18, 28, 30], yet they have not been explored within the university sport setting. From the findings of the present study, it can be argued that CoPs are suitable for implementation within the highly competitive university sport setting to provide coaches of different sport teams with learning opportunities that they do not encounter in other CE settings. The coaches felt that their experiences within the CoP helped them improve their coaching practices, and therefore, observe improvements in their athletes' outcomes. Additionally, the present study has provided further support for the use of Wenger and colleagues' [31] VCF.

References

1. Jones, R. and Wallace, M., Another Bad Day at the Training Ground: Coping with the Ambiguity in the Coaching Context, Sport, Education, and Society, 2005, 10(1), 119-134.
2. Trudel, P. and Gilbert, W., Coaching and Coach Education, in: Kirk, D., Macdonald, D. and O'Sullivan, M., eds., Handbook of Physical Education, Sage, London, 2006, 516-539.
3. Mallett, C.J., Becoming a High-Performance Coach: Pathways and Communities, in: Lyle, J. and Cushion, C., eds., Sports Coaching: Professionalisation and Practice, Elsevier, London, 2010, 119-134.
4. Cushion, C., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R. and O'Callaghan, C., Coach Learning and Development: A Review of Literature, Sports Coach UK, Leeds, 2010.
5. Gilbert, W. and Trudel, P., Learning to Coach Through Experience: Reflection in Model Youth Sport Coaches, Journal of Teaching in Physical Education, 2001, 21, 16-34.
6. Gilbert, W.D., Lichktenwaldt, L., Gilbert, J.N., Zelezny, L. and Côté, J., Developmental Profiles of Successful High School Coaches, International Journal of Sports Science & Coaching, 2009, 4, 415-431.
7. Irwin, G., Hanton, S. and Kerwin, D.G., Reflective Practice and the Origins of Elite Coaching Knowledge, Reflective Practice, 2004, 5(3), 425-442.
8. Rynne, S.B., Mallett, C.J. and Tinning, R., Workplace Learning of High Performance Sports Coaches, Sport, Education and Society, 2010, 15(3), 315-330.
9. Carter, A.D. and Bloom, G.A., Coaching Knowledge and Success: Going Beyond Athletic Experiences, Journal of Sport Behavior, 2009, 32(4), 419-437.

10. Erickson, K., Bruner, M.W., MacDonald, D.J. and Côté, J., Gaining Insight into Actual and Preferred Sources of Coaching Knowledge, International Journal of Sports Sciences & Coaching, 2008, 3(4), 527-538.
11. Wenger, E., Communities of Practice: Learning Meaning and Identity, Cambridge, New York, 1998.
12. International Council for Coaching Excellence, Association of Summer Olympic International Federations and Leeds Metropolitan University, International Sport Coaching Framework (vol. 1.2), Human Kinetics, Champaign, 2013.
13. Wright, T., Trudel, P. and Culver, D., Learning How to Coach: The Different Learning Situations Reported by Youth Ice Hockey Coaches, Physical Education and Sport Pedagogy, 2007, 12(2), 127-144.
14. Lemyre, F., Trudel, P. and Durand-Bush, N., How Youth-Sport Coaches Learn to Coach, The Sport Psychologist, 2007, 21, 191-209.
15. Trudel, P., Gilbert, W. and Werthner, P., Coach Education Effectiveness, in: Lyle, J. and Cushion, C., eds., Sports Coaching: Professionalisation and Practice, Elsevier, London, 2010, 135-152.
16. Gilbert, W. and Trudel, P., An Evaluation Strategy for Coach Education Programs, Journal of Sport Behavior, 1999, 22(2), 234-250.
17. Nelson, L.J. and Cushion, C.J., Reflection in Coach Education: The Case of the National Governing Body Coaching Certificate, The Sport Psychologist, 2006, 20, 174-183.
18. Culver, D., Trudel, P. and Werthner, P., A Sport Leader's Attempt to Foster a Coaches' Community of Practice, International Journal of Sports Science & Coaching, 2009, 4(3), 365-383.

19. Stoszowski, J. and Collins, D., Communities of Practice, Social Learning and Networks: Exploiting the Social Side of Coach Development, Sport, Education and Society, 2012, 1-16.
20. Wenger, E., McDermott, R. and Snyder, W.M., Cultivating Communities of Practice: A Guide to Managing Knowledge, Harvard Business School, Boston, 2002.
21. Bertram, R., Paquette, K., Duarte, T. and Culver, D., Assessing the Value Created through Participating in a Graduate Studies Community of Practice, Transformative Dialogues: Teaching and Learning Journal, 2014, 7(1), 1-14.
22. Vescio, V., Ross, D. and Adams, A., A Review of Research on the Impact of Professional Learning Communities on Teaching Practice and Student Learning, Teaching and Teacher Education, 2008, 24(1), 80-91.
23. Walker, J.S., Bruns, E.J., Conlan, L. and LaForce, C., The National Wraparound Initiative: A Community of Practice Approach to Building Knowledge in the Field of Children's Mental Health, Best Practices in Mental Health, 2011, 7(1), 26-46.
24. Saint-Onge, H. and Wallace, D., Leveraging Communities of Practice for Strategic Advantage, Butterworth-Heinmann, Boston, 2003.
25. Lemyre, F., La Réflexion et les Communautés de Pratique pour Faciliter L'apprentissage par Expérience D'entraîneurs d'un Club de Karaté et d'un Programme de Sport Scolaire, [Reflection and communities of practice to facilitate the learning experience of coaching a karate club and a school sports program], PhD Thesis, University of Ottawa, 2008.
26. Culver, D. and Trudel, P., Cultivating Coaches' Communities of Practice: Developing the Potential for Learning through Interactions, in: Jones, R.L., ed., The Sports Coach as Educator: Reconceptualising Sports Coaching, Routledge, London, 2006, 97-112.

27. Callary, B., Coaches Create and Sustain a Community of Practice, PHEnex Journal, 2013, 4(3), 1-13.
28. Bertram, R. and Gilbert, W., Learning Communities as Continuing Professional Development for Sport Coaches, Journal of Coaching Education, 2011, 4(2), 40-61.
29. Cassidy, T., Potrac, P. and McKenzie, A., Evaluating and Reflecting upon a Coach Education Initiative: The CoDe of Rugby, The Sport Psychologist, 2006, 20, 145-161.
30. Gilbert, W., Gallimore, R. and Trudel, P., A Learning Community Approach to Coach Development in Youth Sport, Journal of Coaching Education, 2009, 2(2), 1-21.
31. Wenger, E., Trayner, B. and De Laat, M., Promoting and Assessing Value Creation in Communities and Networks: A Conceptual Framework (Research Report No. 18), Ruud de Moor Centrum, Open University of the Netherlands, 2011.
32. Merriam, S.B., Introduction to Qualitative Research, in: Merriam S.B., ed., Qualitative Research in Practice: Examples for Discussion and Analysis, Jossey-Bass, San Francisco, 2002, 3-17.
33. Leduc, M., Culver, D.M. and Werthner, P., Following A Coach Education Programme: Coaches' Perceptions and Reported Actions, Sports Coaching Review, 2013, 1(2), 135-150.
34. Alliance of Women Coaches, About Us, web post, retrieved from <http://allianceofwomenscoaches.org/about/>, 2014.
35. Qualitative Solution and Research, N*Vivo (ver. 10.0), computer software, Qualitative Solution and Research, Doncaster, 2012.
36. Braun, V. and Clarke, V., Using Thematic Analysis in Psychology, Qualitative Research in Psychology, 2006, 3(2), 77-101.

37. Maxwell, J.A., Qualitative Research Design: An Interactive Approach, 2nd edn., Sage, Thousand Oaks, 2005.
38. Janesick, V.J., “Stretching” Exercises for Qualitative Researchers, 3rd edn., Sage, Thousand Oaks, 2011.
39. Marshall, D., Introduction, in: Robertson, S., ed., Taking the Lead: Strategies and Solutions from Female Coaches, University of Alberta, Edmonton, 2010, xv-xxix.
40. Marshall, D. and Sharp, D-M., Understanding Mentoring as a Development Tool for Female Coaches, in: Robertson, S., ed., Taking the lead: Strategies and solutions from female coaches, University of Alberta, Edmonton, 2010, 117-145.
41. Wenger-Trayner, E. and Wenger-Trayner, B., Learning in a Landscape of Practice, in: Wenger-Trayner, E., Fenton-O’Creevy, M., Hutchinson, S., Kubiak, C. and Wenger-Trayner, B., eds., Learning in a Landscape of Practice: Boundaries, Identity, and Knowledgeability in Practice-Based Learning, Routledge, New York, 2015, 13-29.
42. Wenger-Trayner, E. and Wenger-Trayner, B., Leadership Groups: Distributed Leadership in Social Learning, retrieved from <http://wenger-trayner.com/resources/practice/disciplines-of-social-learning-leadership/>, 2013.

Appendix A

Study Two – Interview Guide

1. Can you please provide a brief overview of your biography?
 2. How long have you been coaching in your current position?
 3. What circumstances led you to coach at your current position?
 4. Have you participated in the coaching group before? If yes, how long have you participated in this group?
 5. How was this group created?
 6. Who are the members in the group?
 7. How does the group function?
 8. How has the group been sustained?
 - a. What do you think are the main contributing factors to its sustainability?
 9. What are your overall perceptions of the group?
 10. Can you please discuss your participation in the Loop Group?
 - a. What happened and what was your experience of it?
 11. What has all this activity produced?
 - a. Did you gain or learn anything from participating in the group?
 - b. How has your participation changed your social relationships?
 - c. Are there any tools or techniques that were developed through your participation in this group?
 - d. Where have you used these tools or techniques?
 12. Has it made a difference to your practice, life, or context? If yes:
 - a. What aspects of your performance have been affected by your participation in the community?
 - b. What aspects of your life have been affected by your participation in the community?
 - c. Where did you apply a skill you acquired?
 13. What difference has participating in the Loop Group made to your ability to achieve what matters to you or other stakeholders?
 14. Has it changed your or other members' understanding and definition of what matters?
 15. Are there any strengths or positives about the group? If yes, what are they?
 16. Are there any weaknesses or negatives about the group? If yes, what are they?
 17. How do you think the Loop Group could be modified to better serve its members?
- Do you have any other comments or thoughts to add?

Article Three

Supporting female university coaches' learning through communities of practice

Abstract

Background: Coach education researchers have suggested that communities of practice (CoPs) are a practical means for supporting ongoing coach learning and development. The handful of inquiries in various sport settings (e.g., high school, figure skating, baseball) showed that the coaches in these studies co-created and distributed knowledge throughout the CoP. To date however, no researchers have explored CoPs in university sport settings, where many coaches are employed.

Purpose: To (a) explore the value of participating in CoPs in university sport settings, and (b) to provide suggestions for implementing this approach within sport settings.

Participants: The sample included twelve female participants, who were members of one of five CoPs in the university sport setting: five Head Coaches, three Assistant/Associate Coaches, two Administrators, one Coordinator of Player Development, and one Strength and Conditioning Coach. All the participants worked in a NCAA Division 1 athletic department, except one who worked in a NCAA Division 3 athletic department.

Method: A basic interpretive qualitative methodology was used. One semi-structured phone interview was conducted with each participant, resulting in 317 double spaced pages of transcripts. The interviews were uploaded to a data analysis software programme, and analysed using Braun and Clarke's (2006) thematic analysis procedure. An analysis of narratives was then conducted to explore commonalities between the participants' experiences.

Findings: Throughout the data analysis, two main stories emerged, that of the novice coach and that of the more experienced coach. Thus, the findings are presented using two narratives, one for each category of coach. The findings revealed that the coaches gained a number of significant benefits that resulted from participating in a CoP at their respective university. In general, the coaches learned a variety of coaching strategies, some of which they were able to implement in their coaching. As a result, the coaches noticed improvements in their coaching and athletes' outcomes, and gained new perspectives on coaching and personal development. For example, the coaches implemented new communication strategies, and realised that they were able to connect with their athletes more effectively. Another finding showed that the coaches realised the importance of focusing on their own well-being, and as a result, became better at balancing their personal and work demands.

Conclusions: This study provides evidence that the CoP approach can be effectively implemented and sustained within a university sport setting. The findings illustrated that this approach enhanced the learning and development of the coach-participants. The coaches also felt that by providing a supportive environment, the CoP approach was a great way to retain females in the university coaching context.

Key words: loop groups, social learning, professional development, continuing education, high performance coach learning

Introduction

In their book, *Situated Learning: Legitimate Peripheral Participation*, Lave and Wenger (1991) posited that learning occurs in social situations and by engaging in coparticipation with others. Rather than simply acquiring abstract knowledge and attempting to reapply it in future contexts, people gain skills and expertise by engaging in social situations. Thus, the key to becoming a knowledgeable practitioner (or effective coach) is through ongoing engagement in social situations, where people can learn and immediately apply their knowledge (Lave and Wenger 1991). One social situation where practitioners can learn and develop their competencies is a community of practice (CoP). CoP are defined as: “Groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott, and Snyder 2002, 4). When people participate in CoPs, their interactions are influenced by three main components: (a) *mutual engagement*: members are engaged in ongoing interactions together (i.e., meeting regularly to discuss or collaborate about their practice), (b) *joint enterprise*: members are in pursuit of a common purpose (i.e., increasing their competencies in a certain domain), and (c) *shared repertoire*: members have developed ways of doing things (i.e., produced or adopted tools, stories, routines; Wenger 1998).

In recent years, the CoP approach has gained the attention of coach education researchers. Coach education researchers have explored CoPs in a handful of contexts: alpine skiing (Culver and Trudel 2006), karate (Lemyre 2008), baseball (Culver, Trudel, and Werthner 2009), figure skating (Callary 2013), and high school sport (Bertram and Gilbert 2011). A few studies are of particular interest due to the methodologies that were used, and the findings that were presented. First, in 2006, Culver and Trudel presented two studies, with the intention of promoting and

exploring social interactions between coaches. The first study included 17 coaches from various levels of competition who coached in a track and field athletics club. The authors observed interactions between the coaches, and Culver served as a sport psychology/pedagogy consultant. It was clear that the coaches' interactions resembled that of an informal knowledge network, where coaches knew one another and interacted regularly, but in which there was no notion of joint enterprise (pursuing a common purpose). Within this network though, the coaches were able to exchange some information and discuss coaching topics, although much of their interaction revolved around organisational aspects of the club and their athletes' progress. In this report, Culver and Trudel argued that promoting coach learning through social interactions is not an easy task.

In the second study presented by Culver and Trudel (2006), they took a more proactive approach and implemented a CoP in a ski club. The study was conducted in three phases. Phase one took place during the winter months, and included a mixture of coaches (experienced, intermediate, and novice) who coached athletes 11 and 12 years old. Phase two took place during a summer camp, and included elite coaches working with 11 to 15 year olds. During these phases, the coaches participated in round-table meetings, where they could share and discuss lessons learned, and various topics related to coaching. Findings suggested that the coaches enjoyed being a part of the CoP, and felt that it helped them solve coaching dilemmas they were facing. Phase three, held during the following winter, included three coaches from phase one, and three coaches from phase two. The coaches were interviewed to see how they could manage engaging in the CoP without the guidance of the facilitator. The result was that the meetings became more organisational in nature and less focused on the coaches' everyday interactions, which meant that in this phase the group did not resemble a CoP. These findings suggest that the role of the

facilitator is key to the continued involvement of a CoP, and that the presence of the facilitator might impact the nature of coaches' interactions (whether they are focus on learning or more so on organisational aspects).

In 2009, Culver, Trudel, and Werthner then retrospectively explored a sport leader's attempt to implement a CoP in a competitive youth baseball league. They conducted seven interviews, which included five coaches who coached in the baseball league, the league manager, and the sport leader (technical director). The study covered three time periods: (a) a four-year period in which the sport leader changed the culture of the league to facilitate interactions and knowledge sharing between coaches, (b) a three-year period in which the league returned to a more traditional environment in the sport leader's absence, and (c) a one-year period in which the study was conducted. Culver and colleagues' findings suggested that during time period one there was a distribution of coaching knowledge across the league, which resulted from the cooperative environment where coaches focused on helping develop all athletes in the league. Culver et al. argued that this environment facilitated the learning of both the coaches and the athletes in the league. However, as observed in time period two, the presence of strong leadership is necessary for the continued sharing and collaboration that was present in time period one, as the coaches' sharing and collaboration diminished. Then, in time period three, coaches displayed a willingness to return back to the collaborative environment seen in period one. Thus, consistent with Culver and Trudel (2006), it is clear that strong leadership that supports collaboration and sharing between coaches is necessary for the long-term sustainment of a CoP. Further, it is clear that changing the sport culture to one that emphasized knowledge development, as opposed to winning, was crucial to the success of the CoP in time period one.

Bertram and Gilbert (2011) shared their initial observations from attempts to create learning communities (also considered CoPs) in three high school sport settings, in adherence with five guidelines that were adopted by Gilbert, Gallimore, and Trudel (2009) from investigations on teacher CoPs in education settings (i.e., Gallimore, Ermeling, Saunders, and Goldenberg 2009; Saunders, Goldenberg, and Gallimore 2009). The guidelines include stable settings, job-alike teams, protocols that guide but do not prescribe, trained peer facilitators, and working on athlete goals until there are tangible gains in athlete development (Gilbert, Gallimore, and Trudel 2009). Bertram and Gilbert documented an 18-month period of fieldwork, in which they worked with high school basketball coaches, high school water polo coaches, and an entire high school athletics department. Bertram and Gilbert found that setting administrators had difficulty viewing participating in a learning community as an immediate need for their coaches, and thus, suggested gaining adequate buy-in and support from the administration before implementing CoPs. They also proposed that feeling similar to other coaches in the CoP, in terms of their coaching context or type of athlete a coach is working with for example, is important for helping the group identify and discuss coaching issues, and accept feedback from other members. Bertram and Gilbert additionally posited that a key element for implementing effective CoPs is the use of meeting agendas, which are essential for maintaining coaches' focus during meetings. However, they noted that this merely provides guidance throughout the meeting, and still allows the coaches to bring up and discuss issues relevant to their coaching needs. In general, Bertram and Gilbert's efforts highlighted the need for further investigating the use of CoPs in sport settings, in terms of best practices for implementing them and assessing how coaches are influenced by their participation.

Lastly, Callary (2013) investigated how a CoP was created and sustain in a figure skating club. Callary re-analysed two coaches' interviews (eight in total) from a larger study, in which she

explored their life experiences and how the coaches had learned from them. The creation of a new programme at the ski club, where athletes rotated between coaches in an attempt to choose a coach who best fit their needs, resulted in establishing a collaborative environment, where the coaches discussed coaching issues and developed trust with one another. The coaches began communicating on a daily basis, and their interactions eventually resembled that of a CoP. Callary discovered that the CoP was sustained over the three skating seasons. These interactions allowed the coaches to share information, provide feedback and advice, and focus on learning.

The abovementioned inquiries clearly provide rationale for implementing CoPs in sport settings by highlighting that they can in fact be implemented with sport coaches, and illustrating that coaches may benefit from their participation. For example, these studies provided evidence that coaches distributed and co-created knowledge throughout the CoP (Culver et al. 2009) and learned by engaging in the CoP (Culver and Trudel 2006). However, beyond findings similar to these, researchers do not yet fully understand exactly *how* participating in CoPs influences coach learning (e.g., how their participation leads to changes in their coaching practice, or how their coaching practices are changed). Additionally, to date, no scholarly works have attempted to illustrate the benefits of participating in CoPs by presenting the findings in the form of narratives. Therefore, the purpose of the present paper is to illustrate, through the use of narratives, the benefits that can be experienced by coaches participating in a CoP, and to provide recommendations for implementing CoPs in university sport settings.

Method

A basic interpretive qualitative methodology was used. In a basic interpretive qualitative study, the investigator is interested in “understanding how participants make meaning of a situation or phenomenon” (Merriam 2002, 6). In this approach, the researcher attempts to discover and

understand the phenomenon or process being studied, and the perspective and worldviews of those involved (Merriam). Data can be collected through interviews, observations, or document analysis, and are then analysed for patterns or common themes to produce a descriptive account of the findings. For the present paper, five CoPs were identified and selected for exploration in an attempt to illustrate the CoP members' experiences and how they were influenced by their participation in a CoP.

Data Collection and Participants

After an extensive search by the first author to locate an existing CoP within sport settings, she learned of an organisation (The Alliance of Women Coaches; referred to as The Alliance moving forward) that supports female university coaches in their coaching endeavours. On its website, The Alliance proposes that its goals are to increase the number of women head coaches in all NCAA divisions, expand career opportunities for women coaches at all levels, and achieve equal compensation for women coaches (Alliance of Women Coaches 2014). At its education events, The Alliance informs coaches about the benefits of using Loop Groups (referred to as LGs moving forward), and encourages coaches to implement them at their universities. The LGs are intended to support female coaches facing challenges in their practice, and to promote their learning and development as university sport coaches.

The first author contacted a staff member at The Alliance (Julie) to determine if LGs could also be considered CoPs. It was determined that the LGs could be considered CoPs: the LG members met frequently throughout the entire academic year (mutual engagement), met with the intention of improving their coaching knowledge and effectiveness (joint enterprise), and developed documents, tools, and ways of doing things (shared repertoire). Interestingly though, Julie did not know that the LGs were CoPs. She had learned about the concept of an LG from a

book on creating small groups within church communities to enhance the members' engagement and the support they received. Julie agreed to forward a recruitment email to eight female coaches whom she knew had initiated LGs at their respective universities. Five coach-initiators (each from a different university) responded to the email indicating interest in participating in the study (each coach was located at a different university). With each of the five coach-initiators, an in-depth semi-structured individual interview was conducted. All five coach-initiators forwarded the recruitment email to others coaches within their LGs, and seven additional coaches responded indicating interest to participate. In total, 12 interviews were conducted (via telephone), resulting in 317 double spaced pages of transcripts. The interviews averaged 46:07 minutes (ranging from 26:02 to 85:30 minutes). The interview transcripts were sent for member checking. The participants included five Head Coaches, three Assistant/Associate Coaches, two Administrators, one Coordinator of Player Development, and one Strength and Conditioning Coach. See Table 1 for the participants' biographies. See Figure 1 for information regarding the LGs. Pseudonyms are used to ensure the anonymity of participants.

Data Analysis

Data were analysed using Braun and Clarke's (2006) six-phase thematic analysis procedure: (a) becoming familiar with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report. For instance, the first author conducted the interviews, listened to the audio-recordings, then transcribed the interviews and uploaded them to N*Vivo 10 (a data analysis software; Qualitative Solution and Research 2012). During these steps, initial codes were created, which were then merged into themes. Deductively, themes were determined by Wenger, Trayner, and De Laat's (2011) Value Creation Framework (VCF). Additional themes were allowed to emerge inductively

to ensure all significant data were revealed. The first author then reviewed the themes with her supervisor (second author) before defining and naming the themes. During this final step, the authors noticed that there were two main stories that emerged from the five CoPs: that of the novice coach, and that of the experienced coach. While producing the report, the authors developed two narratives, which portray each of the two stories that emerged from the data. Narrative One illustrates the experiences of the “novice coach” or those who had up to six years of experience in their current position, which includes coaches six through 10 in Table 1. Narrative Two illustrates that of the “experienced coach,” or those who had greater than six years of experience in their current coaching position, which includes coaches one through five in Table 1. During data analysis, it became clear that these two types of coaches experienced their participation in the LGs differently, and thus, two narratives were created to illustrate the findings, which involved conducting an analysis of narratives.

In an analysis of narratives, the researcher “seeks to locate common themes or conceptual manifestation among the stories collected as data” (Polkinghorne, 1995, p. 13), and allows the researcher to uncover and present commonalities that exist across the data. Jowett (2008) and Partington et al. (2005) suggested that narratives have the ability to tell us much about a group or person and their subjective experiences, as well as the society or culture to which they belong. Furthermore, a narrative approach allows individual stories to become collective stories (see Denison 1996). Others have argued that humans are “storied beings” (e.g., Bruner 1986; McLeod 1997), and thus may experience an emotional response to stories and a greater possibility to connect with and explore the data in complex ways (e.g., Glesne 1997; Poindexter 2002). Therefore, the authors felt that illustrating the findings through the use of two narratives could result in an insightful and meaningful experience for the reader. Using this approach, the researcher

merged the data from the participants in the present study in an attempt to explore commonalities between their stories.

Findings

The findings are organised into four sections: the context of the LGs, two narratives which are intended to illustrate the findings from two main perspectives (the novice coach and the experienced coach), and finally, experiences shared across both stories.

The Context of the LGs

Each of the five coach-initiators (i.e., the coaches who created LGs at their university) attended a Women Coaches Academy (WCA, an annual conference hosted by The Alliance), where they learned about the concept of a LG. After returning to their respective universities, the five coach-initiators created or co-created a LG in their athletic department. Three of the LGs included only female coaches at the university, one included male and female coaches who coached female sport teams at the university, and one included females working in or with the athletic department at the university (e.g., coaches and administrative support members).

At the time of the present study, the LGs had been in existence from one to four full academic years. On average, LG meetings were held every four to five weeks throughout the academic school year and ranged from 60-120 minutes. For three of the five LGs, the initiator of the group also facilitated each meeting. The other two LGs rotated facilitators, and typically a coach or coaching staff would volunteer to facilitate the next meeting depending upon the topic. Usually one to two meetings in advance, the members collectively predetermined the topics for each meeting. Topics were always related to coaching, and were chosen based on the collective needs of the group (e.g., topics the members wished to learn more about, or issues that came up throughout the season that affected many of the members). In addition, the LGs set aside time

during each meeting to check in with one another, and to allow members to bring up coaching dilemmas that were affecting them at that moment in time. As the coaches became more familiar with one another, they began to form smaller groups and one-on-one relationships and mentorships, resulting in coach interactions between meetings in which these relationships continued to be fostered.

In terms of support from the athletic administration, the LGs were often times provided with meeting rooms and a small budget for coffee and bagels, or even an entire lunch. However, one of the LGs was afforded a \$10,000 budget. They used the funding to send some of their members to the WCA, and to bring in guest speakers when they wanted to learn more about various topics. Aside from financial support, all five LGs received recognition from the administration; the ADs were interested in what the group was doing, how they could help support the LG's efforts, and if there were any significant issues the coaches in the LG were facing.

Narrative One: Jessie – The Novice Coach

Like many others before her, Jessie had played basketball all her life, and was granted a scholarship at a NCAA Division 1 university. After her four years, she became a Graduate Assistant at her university, where she helped coach and manage the team for two years. Once she received her Master's Degree, she was hired as an Assistant Coach for a competitive Division 1 university. Jessie learned a great deal from observing the head coach (Mark) and engaging in critical discussions with him. After coaching with him for two years, she decided to apply for a Head Coaching position at a university that was ranked in the lower half of Division 1. The university had a great reputation, and she was confident that she could help turn the underperforming programme around. She was ecstatic when she got the job, and quickly began

preparing for it by creating a tentative season plan and prepping some materials and drills for the team.

Once the season began, Jessie soon learned that she was not as fully prepared to coach this team as she had originally thought. She knew all about basketball. She had learned from a great coach. Why was she having such a difficult time? She thought: “Why are my players so different? Why am I not able to get through to most of them? Why are we having all these different problems? Mark didn’t have these issues.” In addition to facing challenges with her team, she struggled with the management aspects of her job. Who did she call if her athletes needed additional support because they were having issues with housing or finding the proper courses? At this university, everything was all so new to her, and it was quite overwhelming. She did not know many other coaches at the university, and found it challenging to develop meaningful relationships since her office was not near any other coaches’ offices. Jessie felt somewhat alone and isolated, and she struggled to maintain a 50/50 record for the year.

The following year, the soccer coach decided to create a LG at Jesse’s university. When she received the invitation email, she thought: “That’s a no brainer. I will definitely be there!” Jessie was excited about the possibility of connecting with other female coaches at her university. At the initial meeting, there were 12 female coaches (a seemingly even mix between head and assistant coaches). One of Jessie’s colleagues (Patty), who was also a new coach, but did not attend the meeting, asked how it went: “It seems really great actually. There were about 10 other female coaches from our university who made it. They said that the purpose of the group is for us to support each other, and for us to learn from each other’s experience as a coach. You know the volleyball coach who’s been here forever? She was there. I would love to get to know her and pick her brain!” The meetings would be somewhat structured, but would allow her to ask questions and

receive advice on issues she was currently facing. This meeting also allowed Jessie to meet other coaches at the university whom she would not have spoken to otherwise. For example, the soccer coaches' offices are located on the other side of campus, which means that they rarely cross paths with Jessie; aside from smiling at each other from across the table at a department meeting, they had had minimal interaction. At this first meeting, each of the coaches introduced themselves and explained various things they wanted to get better at throughout the season.

In subsequent meetings, the coaches discussed a variety of topics related to coaching, and Jessie immediately felt that a more positive and collaborative culture was developing. She realised that she was not alone, and that other coaches were experiencing similar challenges and facing related obstacles. While out for coffee one day with Patty (who eventually joined the group), Jessie stated: "You know, I didn't realise how similar we were to other coaches. I thought it was just you and I who were struggling. It's great to know that other coaches here feel the same way, and experience the same challenges that we do. Now, we can face those challenges together." Jessie noticed that another important benefit was that by consistently interacting with others, she was able to create strong connections with other coaches in the group. For example, in addition to the monthly meetings, Jessie connected with the soccer coach, who was very good at managing her team, as well as the swimming coach, who was very effective at connecting with her athletes. Because Jessie got to know these coaches during the meetings, she felt comfortable reaching out to them when she needed advice or wanted to speak about coaching. She also learned "who was good at what," and felt as though she was able to approach other coaches whenever necessary. Jessie and the other coaches began meeting one-on-one and in smaller groups outside the monthly meetings to further discuss issues related to coaching. When another coach (Ashley) who was thinking about joining the group asked her about the benefit of the participating, Jessie said: "If I want to talk to

somebody, I don't want to wait until the next meeting. It's an issue happening on my team right this second and I need someone to talk to. Now, I feel much more comfortable approaching another coach. There's a lot of value in having access to people to go talk to."

Throughout these interactions, Jessie also learned a great deal. She heard about others' perspectives, challenges, ideas, and useful strategies. She noted many strategies that she thought might help her in her coaching, some of which she began to implement immediately, and others she kept for future reference. When Ashley asked if she was able to use anything from the group, Jessie said: "One thing we talked a lot about was leadership. One of the coaches shared a matrix that she put together. We actually implemented that with our team. That was really helpful because we got a general review of the athletes. We could see where we evaluated a student-athlete and where their teammates evaluated them. Sometimes they connected in certain areas. We were able to identify a couple leaders whom we didn't think were leaders, and we changed the dynamic of our team. It was really great."

Jessie began engaging with others more frequently when she wanted to learn more about various matters. She was also inspired to learn more about certain topics (i.e., IY Generation, communication), and thus pursued additional readings regarding these topics. She then brought important lessons learned back to the group for further discussion and collaboration. From these discussions in the meetings, Jessie began implementing communication strategies about which she had learned. She started using technology to connect with her athletes outside of the gym. She also learned more about the IY generation (i.e., those born between the early 1980's and early 2000's) and used a few strategies that other coaches mentioned had worked for them. For example, she ensured that all her athletes left their phones at the door and did not bring them into the locker

room, and tried to connect with them on a deeper level by asking them questions before and after practice regarding their life, school, and their thoughts on practice.

Due to making changes in her coaching, Jessie noticed that she was improving her coaching abilities, and was able to have a greater impact on her athletes. For example, she noticed that she was “getting through” to her athletes better than before, and had noticed changes in their academic and athletic performance. She stated: “I have noticed that I am able to better connect and communicate with my athletes. I have used some techniques from the group, like social media and different ways to engage with them at practice. They are much more involved in team activities.” She even noted that the LG helped her in other ways: “It’s just brought so much, that they’ve helped me out in areas that I’m not aware of, until they’re actually brought up. I’m not stuck in my own little world. I can look at being a part of the university, not just being a part of [basketball].” As a result of learning about a variety of coaching topics and making changes to her coaching practices, Jessie felt that her confidence had increased, and she felt that she was becoming a more competent coach: “I’ve gained a lot of confidence, and I think that shows in my coaching.”

Additionally, Jessie made changes to her personal development. She realised that she enjoyed learning through social interactions, and even came to prefer this to other methods of development. One day, she discussed this with her friend Patty: “There are very few opportunities to get support for management issues. And I think that’s where that group can really play an important role. I think that we get so little education on that as coaches. Sharing ideas, just sharing, is probably the most helpful thing you can do, because there’s no formal education for that, or very little formal education for that.” This led Jessie to reframe her perspective on personal development, realizing it was important to learn through social interactions: “Those small

conversations, whether in the meetings or one-on-one, are personal development. You don't have to attend a class, or read a book to get better; you can go learn from these other coaches. It's probably better because it's real. I didn't realise that before. You really do become a better coach and a better person, and I think it's really beneficial."

Her participation in the LG led Jessie to reconsider her definition of success. As a new coach, she was determined to prove herself and produce a winning team: "It's easy to get wrapped up in your day-to-day tasks and in your win-loss record. I wanted to prove myself. However, the other coaches helped her realise that there is a lot more to coaching than that, and you can prove yourself in other ways. An example is that I placed a bigger focus this year on academic performance and community involvement. We weren't as focused on that last year, and just squeezed it all in at the end, but the athletes didn't get as much out of it then. This year was different." She even changed her view on motherhood and coaching. She told her friend Patty: "I've been thinking about starting a family in the next few years. I thought that would mean the end of my coaching career, or at least a really long break from it. But now that I've seen other coaches in our group start or have a family, and still be a successful coach, I think it's realistic to do, and be good at, both. Now, I think I can handle that. I can be good at being a mom *and* good at being a coach, and I'm not worried about that anymore."

Although Jessie's team did not make the playoffs this year, she realised that the most important thing was that both she and her team were improving and creating a more positive team climate. Her participation in the LG made her look forward to improving her coaching skills by continuing to collaborate with the other LG members; she knew that it would continue to have a positive impact on her team. Throughout her journey, she began to *see* herself as a

competent coach as she developed her knowledge and skills. She gained confidence in her abilities, and realised that she could have a long, successful career.

Narrative 2: Krista – The Experienced Coach

Similar to Jessie, Krista's coaching career (softball) started off as an athlete in a number of sports before she entered her coaching career as an assistant coach. After three years, she took over the head coaching position at her university when it opened up, and has had this position for the last 15 years. Although she has a great deal of experience, she often has a difficult time relating to the current generation of athletes. However, she has developed coaching strategies that she feels are effective, and has been using them for quite a while. She has established a small network of friends at the university with whom she speaks, but these conversations are rarely focused on her own personal learning and development, and instead are focused on helping a couple younger coaches excel.

In the beginning of last season, she was approached by a coach (Cindy) at her university who attended the Women's Coaching Academy, and who wanted her to help start a LG. She thought it would be a great opportunity to help other young coaches develop. For the first meeting, she created a tentative agenda on a topic (team management) she was asked to address, sharing some of her best practices. She felt she had a great deal to share on the topic. During the meeting, many of the coaches appreciated her insight and said they learned a lot. However, she was surprised at how energetic some of the younger coaches were, as well as the fresh new ideas and issues they brought up. She was delighted at how engaging the conversation was, and ended up learning a few new things related to the topic, something she had not expected. After this meeting, she mentioned to Cindy: "That was really great. It was a better turnout and better conversation than I had expected! I feel really energised now!" Like the other experienced coaches, Krista noted that

the meetings had made her feel valued and respected, as well as inspired to learn more and continue to develop as a coach. She received affirmations about her coaching practices, which made her feel good about what she has been doing. Each meeting, she also noted a few new strategies that she could implement in her own coaching that might prove useful. After one meeting, she told Cindy: “I think I always learn something from the other coaches too. The coaches at this university are pretty good, or they wouldn’t be here. I always come away with something. Plus, I’ve kind of taken on a mentor role to some of the younger assistant coaches because I think I’m approachable... it’s easier to come ask me questions than their own head coach at times, because they don’t want their head coach to think that they lack credibility. Where, if they ask me, I don’t control anything to do with their advancement. So, sometimes it’s easier. For us head coaches, we’re supposed to ‘have it all together’ because we’re head coaches, but it’s really nice to just talk to somebody else and ask them what their opinion is, and not pretend that we have all the answers too. I think that’s a value: being able to sit down and discuss an issue with somebody.” Krista began to realise that she thoroughly enjoyed each of the meetings, and looked forward to attending them. She even told Cindy: “You know, originally, I thought about retiring next year, but participating in this group has really made me look forward to coming to work again. I feel rejuvenated and energised. I feel excited to help the younger coaches, and they bring new things to the table that get me excited about coaching again.”

Krista was able to use some of the techniques she learned from the other coaches in the LG meetings. For example, she implemented a motivation strategy using numbered chips. According to their numbered chip, the players who were on the bench would be in charge of pumping up the team until the next point was scored. After that, the next player would be in charge, and so on. As a result, Krista noticed that the players on the bench were much more invested and involved in the

game, and were much more positive despite the fact that they were on the bench. The volleyball coach implemented this strategy and found success with it as well. The other coaches mentioned to Krista that they had implemented a variety of other techniques, and were observing benefits from them.

Krista also realised that she could develop in other areas. For example, she felt she could improve the balance between her personal and professional life. She mentioned to Cindy: “I definitely think that the knowledge and the skills I gain, that support and having that network of resources, is a big help to me both personally and professionally... Just seeing how other coaches balance their personal and professional lives, how they approach situations that rise up. I thought I was decent at balancing each aspect of my life before, but I realised I can do a better job at it, and I’ve been able to balance things more effectively because of that.”

Although she had not considered learning through social interactions as a big contributor to her learning before she began participating in the LG, she now considers it an important piece in her development. Krista also felt it was important to show her athletes that she is still continuing to develop after all these years as a coach. She told another coach in the group: “I think it’s a great opportunity to learn, and sometimes add to something that you do, or change it slightly, and just a way to try to continue to get better and continue to learn. We try to teach our players to be lifelong learners, and I think we are modeling the same thing with what we’re doing.”

Although Krista has many years of experience, she found that participating in the LG helped her refine some of her coaching practices, and also become aware of new strategies and insightful perspectives. Her passion for coaching was also rejuvenated by the energy from the

younger coaches in the group, and she realised that one of her new goals was to help inspire and lead the younger generation of coaches at her university.

Experiences Shared Across Both Stories

Like Jessie, Krista noticed that a positive culture had developed among the members of the LG. The coaches began using the App “GroupMe,” which allows people to connect virtually on their smartphones. Jessie explained this:

We have developed a really positive and supportive culture. Say a team is on the road, someone will send something out on ‘GroupMe’, like ‘hey, volleyball, that was awesome, way to fight. What a great win tonight. Keep it going.’ The same goes for a tough loss: ‘Hey, your kids really fought hard, it’ll pay off down the road, keep at it, know we’re here supporting you.’ It’s a way to cheer each other on. It means a lot to us when we know the other coaches are paying attention to what we’re doing even though we’re not at home.

Krista stated that the coaches experienced benefits from this support:

I think that we’re more motivated and more creative, and able to be more positive when we feel like we have a community of like-minded coaches out there who are going through the same experiences you are, whether a big victory or loss.

In addition, Jessie and Krista discussed the collective assets they gained:

As a group we have developed a better relationship with the [Athletic Director]. He is much more aware of the challenges we face, and it is easier for him to understand where we are coming from. He touches base with us pretty frequently.... We have even been approached by some of the male coaches. They see that we have good ideas too and want to join our meetings. (Krista)

Discussion and Recommendations

The purpose of the present paper was to illustrate what benefits can be created by participating in a CoP through the use of narratives, and to provide recommendations for implementing CoPs in university sport settings. The findings revealed that all the participants saw value in engaging in a LG, and that all LG members gained value by participating in their LG. The findings also revealed that creating LGs within university settings was both practical and effective for enhancing university sport coaches' learning and development, as well as providing them with ongoing support from peers and stakeholders at the university. The LG members were able to create value that was both relevant and meaningful given their coaching needs. During their engagement with the LG, the participants made important connections with others at their university, which may not have otherwise developed without the LG. The participants highly valued these connections, and saw them as instrumental to their learning and development. These connections helped the participants short cut the trial and error method of learning that is common within the field of coaching (e.g., Irwin, Hanton, and Kerwin 2004). The findings from the present study demonstrate that coaches can benefit from participating in a CoP, regardless of a their level of experience. It became clear that both the novice coach and the experienced coach benefitted in a number of ways through their participation, and they both felt that participating in a CoP was important for their learning and success as a coach.

The findings further illustrate that participating in LGs allowed the female coaches to develop relationships (i.e., connections and mentorships) with other coaches at their university. Marshall (2010) suggested that female coaches face many challenges as females in a male dominated profession. First, there is a lack of female role models and mentors (Marshall). This, paired with the fact that female leaders tend to be excluded from social networks, makes it difficult

for female coaches to develop meaningful connections and mentorships with other female coaches (Marshall). Marshall also argued that it is important for women to establish networks, and even stated that it “should be considered an essential part of the job” (xxiv). The findings of the present study showed that the female coaches, through their participation in an LG, were able to develop connections with other female coaches at their university, and that these relationships became quite meaningful in their professional development and personal wellbeing. Marshall also proposed that women are motivated by different things than men. For example, women can be motivated by connections to colleagues, recognition, and giving back to the community. For the women who participated in the present study, it was clear that participating in the LGs allowed them to experience all three of these motivators, and thus develop a renewed sense of purpose in their work. By participating in the LG meetings and interacting in smaller groups and in one-on-one meetings, the coaches were able to: (a) develop connections, (b) receive recognition from their superiors and each other, and (c) give back to the community through collaborating on community service projects, as well as by helping and supporting one another as a collective group. In addition to these benefits, the female coaches were able to address some of their immediate coaching needs, and continue learning about various coaching topics.

The LGs illustrated in the present paper exemplified four of the five key guidelines presented by Gilbert and colleagues (2009): (a) they continued to meet with the intention of supporting each other and enhancing their coaching effectiveness (stable settings dedicated to learning), (b) they all coached female sport teams at the university level (job alike teams), (c) they created and followed agendas for each meeting (published protocols), and (e) they continued working on athlete goals until they observed realised value (working on athlete goals). However, in terms of (d) trained peer facilitators, the initiators were not specifically “trained” to implement and

facilitate the LGs. Instead, they simply learned about the CoP concept and some of the potential benefits of participating in CoPs. The coaches were then encouraged to create a CoP at their respective university. They did not receive any training, but did receive some information on how CoPs are typically structured. With that in mind, they initiated a CoP at their university. The findings showed that all five coaches created a successful CoP, which, at the time of this paper's publication, are still thriving. Therefore, contrary to Gilbert et al.'s (2009) suggestion, it does not appear that "trained" peer facilitators are a necessary component to successfully implementing a CoP, though arguably, it would be additionally beneficial if the facilitators were trained in some regard.

It is important to note that although the participants in the present study were all females within the NCAA university sport setting, the benefits of participating in CoPs are universal and can be created and gained by those engaging in CoPs within a variety of settings. Researchers have explored CoPs in other settings with both male and female coaches, and in a wide range of competition levels (e.g., youth through to elite), and those inquiries have reported similar findings (e.g., Culver et al. 2006, 2009). The two narratives that were developed from the findings provide support for the fact that both novice coaches and highly experienced coaches can create value by participating in CoPs. In light of these findings, coach education researchers and practitioners should consider supporting coaches' ongoing learning and development by implementing CoPs in professional development opportunities for coaches. As argued by Trudel, Gilbert, and Werthner (2010), "National sport governing bodies will have to be innovative in providing coaches with adequate learning opportunities" aside from those that coaches currently have access to in their sport's formal coach education setting. The present study supports the suggestion that CoPs be one

of those innovative methods for providing unique and context specific learning opportunities. Future inquiries should further explore the use of the VCF in various sport settings.

The following section is based upon the findings of the present study, and is intended to provide practical suggestions for implementing or modifying existing CoPs or social learning groups. It is important to note that each and every CoP is unique, and should be modified according the setting and members' needs. However, the important elements that are essential for supporting learning and development are: (a) mutual engagement – members continuously engage with others in the group, (b) joint enterprise – members are focused on getting better within a similar endeavour, and (c) shared repertoire – members share challenges, ideas, and practices.

Recommendations

- **Increase awareness about the benefits of CoPs and encourage coaches to create them.**

At the very least, like the Alliance of Women Coaches, coach educators should begin teaching coaches about the benefits of CoPs, and help coaches take the first step towards developing their own CoPs within sport settings. The coaches in the present study were simply taught about the benefits of CoPs and the basic structural elements, and then urged to create them. If coach educators across various domains began doing the same, coaches might begin creating CoPs on their own with other coaches in similar settings, whether they be local or not. However, ideally, coach educators would lead these efforts and not leave the creation of CoPs up to chance.

- **Ask if others want to create a CoP.** Each of the CoPs included in this study were initiated by a coach, who simply wished to develop a supportive network, and to continue their professional development. By demonstrating their passion for these two endeavours, and

providing other coaches with some general information about what to expect, the coaches in the present study were able to recruit other coaches and create successful CoPs.

- **Attempt to change your perspective and that of others.** Before creating a CoP, each of the coaches in the present struggled with coaching dilemmas and were not involved in collaboration and sharing. However, once they began participating in the CoP, it became clear that collaborating and sharing was nothing but beneficial to their learning and coaching performance. They began to view their efforts in terms of collective goals (e.g., helping all the female coaches at the university improve their knowledge and effectiveness), rather than as individual efforts to get better. The key is helping others become aware of the benefits of sharing coaching strategies.
- **Find ways to connect and share.** Coaches are busy; especially in highly competitive settings. The findings showed that the female coaches set aside time to attend a group meeting approximately once per month. Aside from that, they met more frequently in smaller groups and one-on-one whenever their schedules allowed. This shows that participating in a CoP is possible. Coaches will need to set aside time for things that are important to their coaching, and the findings showed that participating in a CoP was important to the coaches, and contributed greatly to the coaches' learning.
- **Consider using an online or social media platform to further support interactions.** The coaches in the present study used an app called "GroupMe" to foster the supportive and collaborative culture of the CoP. They used it to send encouragement and support after a tough game, or a congratulatory note after a successful one. We recommend the use of this app, or one that is similar, to help foster interactions in between meetings.

- **Assign different roles that contribute to the effectiveness of the CoP.** Each of the CoPs in the present study was run in a similar fashion, but there were also differences. One of the factors that contributed to the effectiveness of the CoPs is that coaches fulfilled different roles and responsibilities within the CoP. However, the two CoPs that rotated facilitators seemed to very much appreciate this characteristic, and felt that it greatly contributed to a team environment. Thus, those wishing to implement CoPs should consider this approach by collectively identifying what each coach or coaching staff is good at, which could result in each meeting being facilitated by a different member (whose expertise might be pertinent to the particular topic of that meeting). CoP initiators should consider assigning one person to collect and store all the documents and tools produced by the CoP, and another to organise and schedule meetings. Additional roles to consider include: (a) community keepers, who ensure all members are able to fully participate, (b) critical friends, who reflect on what works and what does not, and (c) social reporters, who help generate a history of the CoP (Wenger-Trayner and Wenger-Trayner 2013).
- **Seek administrative support and interest.** Each of the LGs had some form of support from the administration at their university. This ranged from the AD simply providing meeting rooms and frequently touching base with the LG, to providing funding of up to \$10,000 to help the LG bring in experts on various topics and send select LG members to “The Huddle” (an annual conference hosted by The Alliance). The coaches felt that support from the administration was essential to the effectiveness of the CoPs, and led them to be more committed to engaging in the LG. Therefore, attempt to get administrative support. This could include the administration buying lunch or coffee and bagels, providing meetings rooms and office supplies, showing interest and checking in, encouraging

coaches' participation, sharing the CoPs efforts and outcomes with others, or asking for ways in which they can help.

- **Help coaches realise the value they are creating.** Realising the value created by participating in CoPs can be an important step for gaining additional buy-in and continued engagement. Simply participating in this study seemed to validate the coaches' opinions of the CoP, and help them realise that they were in fact creating a great deal of value. Sharing value creation with others may help recruit new members, as well as allow existing members to realise the full scope of the benefits they gain. This could be achieved by using Wenger, Trayner, and De Laat's (2011) VCF. The VCF is intended to help researchers, practitioners, and CoP members reflect on and identify the value that is created by participating in CoPs. It provides various tools that can help CoP members explore the various types of value that is created, such as questions to assist CoP members reflect on their participation, value creation story templates, and key indicators to help identify value creation. Moreover, the VCF can be used to plan CoP activities through tools that encourage members to reflect on the value that they aspire to create within their community.

Conclusion

Coach education researchers have suggested that CoPs are an effective means for supporting the ongoing learning and development of sport coaches (e.g., Bertram and Gilbert 2011; Culver et al. 2006, 2009; Gilbert, Gallimore, and Trudel 2009). However, to date, there are no scholarly works that explore CoPs in university sport settings, nor present findings in the form of narratives. The findings of the present study indicate that the coaches who participated in LGs in the university setting gained a number of invaluable benefits, which enhanced their learning

and development. Presenting the findings in two narratives allowed the authors demonstrate how both novice and experienced coaches can benefit from participating in CoPs. It was apparent that regardless of the coaches' level of experience, they gained value that helped them become more competent coaches. Therefore, the authors argue that CoPs are a suitable approach to implement to enhance coaches' knowledge and expertise, and coach educators should consider using CoPs on a broader scale to support the learning of coaches both regionally and nationally.

References

- Alliance of Women Coaches. 2014. "About Us." Accessed 1 April 2015.
<http://allianceofwomenscoaches.org/about/>
- Bertram, R., and W. Gilbert. 2011. "Learning Communities as Continuing Professional Development for Sport Coaches." *Journal of Coaching Education*, 4 (2): 40-61.
- Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology*, 3 (2): 77-101.
- Bruner, J. S. 1986. *Actual Minds, Possible Worlds*. Cambridge, MA: Harvard University Press.
- Callary, B. 2013. "Coaches Create and Sustain a Community of Practice." *PHenex Journal*, 4 (3): 1-13.
- Culver, D., and P. Trudel. 2006. "Cultivating Coaches' Communities of Practice: Developing the Potential for Learning Through Interactions." In *The sports coach as educator: Reconceptualising sports coaching*, edited by R. L. Jones, 97-112. London: Routledge.
- Culver, D., P. Trudel, and P. Werthner. 2009. "A Sport Leader's Attempt to Foster a Coaches' Community of Practice." *International Journal of Sports Science & Coaching*, 4 (3): 365-383.
- Denison, J. 1996. "Sport narratives." *Qualitative Inquiry*, 2 (3): 351-362.
- Gallimore, R., B. A. Ermeling, W. M. Saunders, and C. Goldenberg. 2009. "Moving the Learning of Teaching Closer to Practice: Teacher Education Implications of School-Based Inquiry Teams." *The Elementary School Journal*, 109 (5): 537-553.
- Gilbert, W., R. Gallimore, and P. Trudel. 2009. "A Learning Community Approach to Coach Development in Youth Sport." *Journal of Coaching Education*, 2 (2): 1-21.

- Glesne, C. 1997. "That Rare Feeling: Re-Presenting Research Through Poetic Transcription." *Qualitative Inquiry*, 3: 202-221.
- Irwin, G., S. Hanton, and D. G. Kerwin. 2004. "Reflective Practice and the Origins of Elite Coaching Knowledge." *Reflective Practice*, 5 (3): 425-442.
- Jowett, S. 2008. "Outgrowing the Familial Coach-Athlete Relationship." *International Journal of Sport Psychology*, 39 (1): 20-24.
- Lave, J., and E. Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. New York, NY: Cambridge University Press.
- Lemyre, F. 2008. "La réflexion et les communautés de pratique pour faciliter l'apprentissage par expérience d'entraîneurs d'un club de karaté et d'un programme de sport scolaire. [Reflection and communities of practice to facilitate the learning experience of coaching a karate club and a school sports program]." PhD diss., University of Ottawa, Ottawa, Canada.
- Marshall, D. 2010. "Introduction." In *Taking the Lead: Strategies and Solutions from Female Coaches*, edited by S. Robertson, xv-xxix, Edmonton, Alberta: The University of Alberta Press.
- McLeod, J. 1997. *Narrative and Psychotherapy*. London: Sage.
- Merriam, S. B. 2002. "Introduction to Qualitative Research." In *Qualitative Research in Practice: Examples for Discussion and Analysis*, edited by S.B. Merriam, 3-17. San Francisco: Jossey-Bass.
- Partington, E., S. Partington, L. Fishwick, and L. Allin. 2005. "Mid-Life Nuances and Negotiations: Narrative Maps and the Social Construction of Mid-Life in Sport and Physical Activity." *Sport, Education and Society*, 10 (1): 85-99.

- Polkinghorne, D. E. (1995). "Narrative Configuration in Qualitative Analysis." *International Journal of Qualitative Studies in Education*, 8 (1): 5-23.
- Poindexter, C. 2002. "Research as Poetry: A Couple Experiences HIV." *Qualitative Inquiry*, 8 (6): 707-714.
- Qualitative Solution and Research. 2012. N*Vivo. Version 10.0. Doncaster, Australia: Qualitative Solution and Research. Computer software.
- Saunders, W. M., Goldenberg, C. N., and Gallimore, R. 2009. "Increasing Achievement by Focusing Grade-Level Teams on Improving Classroom Learning: A Prospective, Quasi-Experimental Study of Title I Schools." *American Educational Research*, 46 (4): 1006-1033.
- Trudel, P., W. Gilbert, and P. Werthner. 2010. "Coach Education Effectiveness." In *Sports Coaching: Professionalisation and Practice*, edited by J. Lyle and C. Cushion, 135-152. London: Elsevier.
- Wenger, E. 1998. *Communities of Practice: Learning Meaning and Identity*. New York, NY: Cambridge.
- Wenger, E., B. Trayner, and M. De Laat. 2011. "Promoting and Assessing Value Creation in Communities and Networks: A Conceptual Framework." Research Report No. 18. Ruud de Moor Centrum, Open University of the Netherlands.
- Wenger, E., R. McDermott, and W. M. Snyder. 2002. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. Boston, MA: Harvard Business School.
- Wenger-Trayner, E., and B. Wenger-Trayner. 2013. "Leadership Groups: Distributed Leadership in Social Learning." Retrieved from <http://wenger-trayner.com/resources/practice/disciplines-of-social-learning-leadership/>

Appendix A

Study Two – Interview Guide

18. Can you please provide a brief overview of your biography?
 19. How long have you been coaching in your current position?
 20. What circumstances led you to coach at your current position?
 21. Have you participated in the coaching group before? If yes, how long have you participated in this group?
 22. How was this group created?
 23. Who are the members in the group?
 24. How does the group function?
 25. How has the group been sustained?
 - a. What do you think are the main contributing factors to its sustainability?
 26. What are your overall perceptions of the group?
 27. Can you please discuss your participation in the Loop Group?
 - b. What happened and what was your experience of it?
 28. What has all this activity produced?
 - a. Did you gain or learn anything from participating in the group?
 - b. How has your participation changed your social relationships?
 - c. Are there any tools or techniques that were developed through your participation in this group?
 - d. Where have you used these tools or techniques?
 29. Has it made a difference to your practice, life, or context? If yes:
 - a. What aspects of your performance have been affected by your participation in the community?
 - b. What aspects of your life have been affected by your participation in the community?
 - c. Where did you apply a skill you acquired?
 30. What difference has participating in the Loop Group made to your ability to achieve what matters to you or other stakeholders?
 31. Has it changed your or other members' understanding and definition of what matters?
 32. Are there any strengths or positives about the group? If yes, what are they?
 33. Are there any weaknesses or negatives about the group? If yes, what are they?
 34. How do you think the Loop Group could be modified to better serve its members?
- Do you have any other comments or thoughts to add?

Table 1

Participants' biographies and roles

Participant	Role	Sport	Years in current position	Education
1	Head Coach	Women's Softball	26	Master's in Sport Management
2	Head Coach	Women's Volleyball	23	Master's in Physical Education
3	Head Coach	Women's Soccer	19	Master's in Exercise Science
4	Head Coach	Women's Softball	11	Master's in Physical Education and Sports Administration
5	Assistant Coach	Women's Softball	9	Master's in Sport Management
6	Head Coach	Men's and Women's Swimming	6	Master's in Liberal Studies
7	Strength and Conditioning Coach	All female sports	5	Master's in Human Performance
8	Associate Head Coach	Women's Basketball	4	Bachelor's in Criminal Justice
9	Assistant Coach	Men's and Women's Cross Country & Track	3	Bachelor's in Physical Education
10	Coordinator of Player Development	Women's Basketball	1	Master's in Teaching and a Teaching Credential
11	Senior Associate Athletic Director	All sports	7	Master's in Sport Management
12	Athletic Director	All sports	6	Doctorate in Law

Figure 1

Information about the LGs

	CoP 1: NCAA D1	CoP 2: NCAA D1	CoP 3: NCAA D1	CoP 4: NCAA D1	CoP 5: NCAA D3
Members	12-17 female coaches	10-15 female & male coaches, & administration (females also meet separately for additional support)	8-10 female coaches and supporting roles (e.g., nutritionist, athletic trainer, etc.)	8 female coaches, sometimes invite administration	10-15 female coaches
# of coaches interviewed for the study	1	2	4	1	4
Meeting outline	-60m share & discuss best practices -15-30m needs (additional time if necessary)	-45m share & discuss best practices on topic -30m needs	-15m check in -45m best practice -30m needs	-60-90m	-60m, stay longer if necessary
Frequency	Every 6 weeks	Once per month	Once per month	Once per month	Once per month
Support from administration	Breakfast or lunch, meeting room	Coffee & bagels, meeting room, checks in	\$10,000 budget meeting room, Admin checks in	Lunch out, or in meeting room, checks in	Coffee, meeting room, checks in
Facilitated by:	Coaching staffs	Initiator / different coaches & coaching staffs	Co-initiators	Initiator	Co-initiators
Life of CoP (at time of study)	3 years	1 year	1 year	1 year	1 year

General Discussion

The general purpose of the present doctoral dissertation was twofold: (a) to explore how communities of practice were designed, implemented, and sustained with sport coaches, and (b) to explore the value that was created by participating in a CoP using Wenger, Trayner, and De Laat's (2011) VCF. To address this purpose, two studies were conducted. Study One employed a collaborative inquiry approach, and was intended to explore how a CoP could be designed, implemented, and assessed within a sport setting. Five coaches participated, and were involved in youth coaching at a local soccer club. The CoP was collaboratively designed and implemented with the researcher and the five co-researchers. Two individual interviews were conducted with each co-researcher (one in the beginning, and one after the CoP gatherings had ended), and the researcher's observations from the scheduled meetings and online discussions were documented. In Study Two, a basic interpretive qualitative methodology was used, and explored the value created by participating in CoPs (called LGs). Data collection included 12 individual interviews with five Head Coaches, three Assistant/Associate Coaches, two Administrators, one Coordinator of Player Development, and one Strength and Conditioning Coach. Both Study One and Study Two revealed that the participants and co-researchers (referred to as participants moving forward) created a variety of value, within all five cycles of the VCF. The findings demonstrated that the participants gained value that was personally relevant and timely given their individual coaching needs and their desire to learn more about specific topics. In addition, the participants were able to address immediate coaching dilemmas during their interactions in the CoPs, which helped them short cut the typical trial-and-error of learning through experience. Thus, learning through CoPs became an important means for enhancing their learning and development as sport coaches.

While reflecting on the findings from Study One and Study Two, it appears that a number of interesting conclusions can be drawn. First and foremost, the findings from this doctoral dissertation illustrate that the use of CoPs can be a practical and effective means for cultivating ongoing coach learning and development. In the teacher education setting, O'Sullivan (2007) suggested that practitioners encounter many challenges when attempting to implement CoPs in practical settings. Among those challenges was a claim that practitioners struggled to inspire critical and deep discussions. However, the present dissertation demonstrated that participants did in fact engage in critical and deep discussions during interactions with other CoP members, and that those discussions were quite important to the learning and development of the participants. The participants felt that they gained a number of significant benefits by participating in CoPs, which they believed helped them become more competent coaches. Specific guidelines pertaining to frequency and duration of meetings have not yet been presented in the literature. In fact, Wenger and colleagues (2002) suggested that the life span of CoPs can vary greatly. The findings from the present dissertation, though, show that even four months of participation in a CoP is enough to foster value creation.

An original contribution of the present doctoral dissertation is that the findings illustrate the participants experienced a change in their learning and coaching practices. Although there have been a handful of studies on CoPs in sport settings, Cushion and colleagues (2010) suggested that none delve into the actual impact on the participants' learning or coaching practices. The present dissertation however does just that. The participants presented their personal value creation stories, and within them, they highlighted a number of key learnings and changes they made to their coaching practices, many of which led to improvements in their coaching performance. For example, the participants discussed learning about a variety of coaching strategies, philosophies,

and goals, which they could implement in their coaching. They then went out and applied some of their learning, which led to making changes to their coaching practices (e.g., communicating differently with athletes, applying new motivation strategies, engaging in more social learning situations). Thus, it can be argued that CoPs are a practical and effective means for contributing to the ongoing learning and development of coaches, which can be illustrated through the use of value creation stories. Further, it can be argued that the VCF was useful in allowing these findings to emerge from the data.

The VCF provided a pragmatic and beneficial means to explore the value created by participating in CoPs. Edwards (2005) argued that the CoP concept fails to consider how learning occurs on an individual level, focusing primarily on the collective gains. However, the VCF is intended to provide a toolkit for allowing CoP members to tell individual and collective value creation stories (Wenger et al., 2011). The researcher found the VCF useful because it allowed the participants to reflect on the value that was created by participating in CoPs both on an individual and collective level. The findings from Study One and Study Two showed, that the CoP members created value that was personally relevant to them, in addition to creating value that benefited the CoP as a collective whole (especially in Study Two). The researcher found that the VCF provided further guidance by clearly outlining the cycles of value that can be created by participating in CoPs, offering a valuable framework of which has not yet been fully explored in the coach education literature. For instance, the findings showed that participants created immediate value by simply engaging in the CoPs. They enjoyed the meetings, were inspired to learn more about a variety of topics, and received recognition and affirmations about their coaching practices. They created potential value by sharing ideas, information, challenges, and best practices, and gained access to tools and other knowledgeable coaches. The participants created applied value, and

illustrated this by discussing specific changes they made to their coaching practices and the way they engaged in personal development. Realised value was created when they described observing benefits from applying their learning. And finally, the participants discussed creating reframing value when they explained how their participation in the CoPs led to restructuring how they viewed success or their aspirations for athlete development. These findings add additional insight into the benefits coaches gain by participating in CoPs.

Although the VCF was an extremely useful tool throughout the present doctoral dissertation, some minor adjustments of the framework could be useful for those wishing to use it to assess value creation in sport coach CoPs. The VCF could be more easily used if the language and terminology used in the key questions provided by Wenger et al. (2011) better reflected the needs of sport coaches. For instance, the question “Where have you used the products of the community/network?” could be modified as follows: “Can you think of any situations where you have implemented a new strategy, technique, or tool in your coaching practices?”; and, “What aspects of your performance has your participation in the community/network affected?” could be revised to: “Have you noticed any changes in your coaching abilities or in your athletes’ performance as a result of participating in the CoP?” In addition to modifying the key questions to better reflect sport coaches’ language, Wenger and colleagues could include questions that allow researchers to explore how a CoP could be enhanced to better serve its members. Currently, the VCF only includes useful tools for exploring the positive aspects of participating in CoPs. However, as Wenger (1998) noted, all of the potential outcomes and features of CoPs are not naturally positive. Bertram et al. (2014) suggested that focusing strictly on the positive aspects and outcomes of a CoP presents only a partial picture of the overall group functioning. Although the personal value narrative templates in the VCF do allow participants to explore positive and

negative aspects of CoPs, the key questions do not include any reference to negative aspects. Therefore, in order to fully explore the outcomes associated with participating in a CoP, the VCF could include questions that stimulate discussion around how the CoP can be improved. For instance, “Are there any aspects of the CoP you think could be improved?” or “Did you encounter any barriers or negative outcomes? If so, what could have been changed to improve your experience?” Including these questions in the interview guides in the present dissertation led to participants revealing that they did in fact encounter barriers that affected their participation in the CoPs (e.g., not being able to discuss sensitive issues regarding athletes, parents, or coaches that other group members knew). If these questions were not included in the interview guides, these findings would not have emerged.

Previous literature has suggested that facilitators are essential to the ongoing engagement of members and to the life of a CoP (e.g., Culver, 2006, 2009; Gilbert, Gallimore, et al., 2009). Gilbert, Gallimore, and Trudel (2009) stated: “Any attempt to create and nurture a professional learning community requires leadership; ultimately someone in the group has to provide guidance and hold other group members accountable for contributing to the learning effort” (p. 21). This was also the case in Study Two. Each of the LGs had someone who was in charge of encouraging the engagement of others, and who served as the driving force by keeping the coaches interested and engaged. However, Gilbert, Gallimore, et al. also argued that “the peer facilitator will need to complete some basic training on how to lead a coach learning community, which may be as rudimentary as a 1-2 hour orientation session” (p. 12). In the case of Study Two, the LG facilitators only received a one-page handout about LGs, and sat through a short talk about LGs, which was less than 15 minutes long, and which presented the common characteristics and the benefits of participating in LGs. Essentially, the coaches were encouraged to create one in their individual

university settings, but learned how to facilitate them on the fly and through trial and error rather than in a more formal orientation training session. The characteristics that the facilitators in Study Two did exemplify were: commitment to initiating the CoP, a willingness to dedicate time and effort towards encouraging other coaches to continue participating in the CoP, and a genuine concern for the learning and development of all CoP members. Thus, the findings from Study Two suggest that the facilitators do not in fact need to be trained (though arguably training would be beneficial) to effectively facilitate a CoP, but may instead suggest that there are common desirable qualities that the facilitators might characterize.

The present doctoral dissertation provided further evidence that CoPs are in fact effective in a variety of settings. To date, no scholarly works have explored CoPs within the university sport setting. The original contribute of Study Two (Articles Two and Three) is that it is the first of its kind to identify CoPs nested in university sport settings, and to explore the value that is created within them. In fact, Study Two provided five practical examples of CoPs being initiated and sustained within university sport settings, demonstrating that they can be effectively implemented and sustained in highly competitive sport contexts. Some have argued that CoPs do not work in HP contexts, where coaches view each other as competitors and thus take a more individualistic approach (e.g., Culver et al., 2009). The CoPs explored in Study Two were unique, in that the coach members were not competing with one another, but instead included coaches from the same university. Previous academic works have suggested that coaches who coached in the same sport tended to view one another as competition, and as a result, were not open to sharing some of their coaching strategies (e.g., Culver, 2006). However, this was not the case for the coaches in Study Two, who coached different sports at the same university. These coaches reported that, aside from the X's and O's of their particular sport, they could engage in many critical discussions that

revolved around a number of useful coaching topics. The coaches in Study Two felt “alike,” in that they were coaching at the same university, were female sport coaches, and were pursuing similar goals. This is in line with one concept in the literature, which suggests that being in “job-alike teams” help coaches relate to one another and view the information shared in the CoP as personally relevant (Gilbert, Gallimore, et al., 2009). Therefore, the fact that CoPs were nested in a university athletics department, where coaches were all working at the same university (i.e., shared practice), prevented the issue of competitiveness between them, allowing the CoP to be effectively implemented in this high performance setting.

During the data analysis in Study Two, two distinct stories emerged: the novice coach and the experienced coach. The novice coach and the experienced coach both created a great deal of value, highlighting that coaches can benefit from ongoing support in the form of participating in CoPs regardless of their level of experience, similar to the findings reported by Culver and Trudel (2006). In addition to showing that coaches benefit from participating in CoPs in university sport settings, Study One provided further support for the use of CoPs in youth sport settings. The participants in Study One felt that the CoP provided them with opportunities to receive support and enhance their learning and development that they did not receive from traditional coach education programmes they had previously participated in. This is consistent with the literature, which suggests that coaches require ongoing support after their initial training and certification (e.g., Bertram & Gilbert, 2011; Gilbert, Gallimore, et al., 2009). It also appeared as though the act of participating in Study One and Study Two allowed the participants to reflect on the value they created throughout their participation in the CoPs. While speaking with the participants, it seemed clear that this helped them become more aware of the benefits they were receiving as a member of the CoP, possibly turning incidental learning into explicit learning as they began to reflect on and

verbalise some of their learning experiences. The encouragement of this type of internal learning situation within the CoP and through the implementation of the VCF might have a spill over effect that would allow the coaches to use more reflection in their practice in general.

It is also important to discuss the sustainability of the CoPs studied in the present doctoral dissertation. For Study One, although the CoP only existed for a short period of time (4 months), the researcher received a call from one of the participants in December, 2015, indicating that she was looking for advice and guidance in an effort to create a CoP in her new coaching position. This illustrates the fact that the healthiness and vitality of a CoP is always changing (Wenger et al., 2002). In other words, a CoP can be thriving and all members can be fully engaged at one point in time, and completely unengaged at another point in time. Thus, CoP members are not necessarily *always* producing beneficial outcomes throughout their participation. Throughout Study One, the CoP appeared to be healthy, as it was producing change and learning in its members. Then, when the coaches stopped meeting, it entered into an unhealthy form. However, the fact that one of the members is now creating another CoP, suggests that when a CoP seems to be fading, it can actually morph into a new thriving CoP. Therefore, although the original CoP in Study One did not survive, it did result in the creation of a new CoP, showing that it was in fact sustained in some regard. In the case of Study Two, the CoPs are, at the time of the present thesis submission, still in existence and thriving. This speaks to the sustainability of CoPs in the university sport setting, providing support for a few characteristics that the participants felt contributed to livelihood. First, the participants felt that the role of the organiser was essential, and that the person in this role helped drive the coaches' interest and engagement in the CoP. Second, support from the administration was a key element that the coaches felt enhanced their commitment to the CoP and the importance they placed on engaging in interactions with others in the group. Third, the supportive and

collaborative environment that was created through the coaches' participation in the CoPs led to increased buy-in and engagement, and even led to more female coaches joining throughout the academic year.

Limitations

It is necessary to discuss some of the limitations of the studies that were conducted in order to fulfill the requirements of this doctoral dissertation. For Study One, only one CoP was designed, implemented, and assessed within a local soccer club, and it was the first in the sport setting to use the VCF. Consequently, readers should be careful not to conclude that all CoPs nested in a youth soccer organisation will result in the same findings, and that the value created will highly depend upon the needs of the coach participants and their athletes.

For Study Two, it is important to note that all the participants were female. It was noticeable that the participants highlighted a number of challenges they faced as female coaches in a male dominated profession. As such, implementing CoPs with male university sport coaches might not result in the same value creation, and thus readers should consider this when reflecting on the findings of Study Two. Another limitation was that the researcher was only able to interview a total of 12 participants from five different CoPs. Each CoP had between 10 and 15 members, which meant that there were approximately 50 coaches and administrators who did not participate in Study Two. Furthermore, the sole method of data collection in Study Two involved individual interviews with the participants; the researcher was unable to attend or observe any scheduled meetings or interactions between coaches. Therefore, the conclusions rely solely on the findings that emerged through the interview data.

Future Research

The findings of the present doctoral dissertation have increased our understanding of how CoP can be designed, implemented, assessed, and sustained in a youth sport setting and in a university sport setting. However, the findings have led to a number of interesting questions that future inquiries should consider. For instance, the findings from Study Two explored the value that female coaches created by participating in CoPs. Among the findings, the participants suggested that their involvement in the CoP resulted in more effective recruiting and retaining of female coaches in the university sport setting. This was not the main purpose of the present dissertation, and thus could be explored more thoroughly. Therefore, it would be interesting if future inquiries could explore how CoPs can play a role in recruiting and retaining female coaches in the university sport setting, especially when one considers that female university sport coaches face a number of challenges that their male counterparts do not encounter (Marshall, 2010). This, in part, contributes to the fact that female sport teams are predominantly coached by male coaches (Marshall, 2010).

The present dissertation has provided additional support for the use of CoPs in sport settings. Nevertheless, CoPs have not yet been implemented on a wide scale basis. Inquiries in the literature are primarily focused on implementing and examining CoPs implemented in a sport organisation (e.g., Callary, 2013), in a school district (e.g., Bertram & Gilbert, 2011), or in a league (e.g., Culver et al., 2009). Therefore, future research should explore how CoPs can be implemented on a broader scale, such as nested within a coach education programme that serves coaches regionally or nationally. For instance, it would be interesting to explore how CoPs could be implemented within Canada's National Coaching Certification Program (NCCP). Similarly, future inquiries should consider exploring how a landscape of practice (LoP; Wenger-Trayner & Wenger-Trayner, 2015) lens might influence coaches' learning and the creation of CoPs nested within the

landscape. An LoP is a: “Complex system of communities of practice and the boundaries between them” (Wenger-Trayner & Wenger-Trayner, 2015, p. 13). It was clear in Study Two that the Alliance played a role in the creation of the LGs. However, it was not within the scope of the present doctoral dissertation to fully explore the LoP and the boundaries between the CoPs within it. Thus, future studies should consider how the broader landscape contributes to the vitality, outcomes, and sustainment of CoPs.

Future inquiries should consider various elements when implementing CoPs, such as the roles CoP members can fulfill and the use of the VCF. Study One and Study Two also showed that when CoP members take on various roles within the CoP, the interactions and engagement in the CoP can be positively impacted. Wenger-Trayner and Wenger-Trayner (2013) outlined a number of these roles (e.g., social reporters, community keepers, etc.). Future studies should further explore how these roles can impact value creation in a CoP, and even how facilitators might encourage CoP members to fulfill the various roles suggested by Wenger-Trayner and Wenger-Trayner. In terms of using the VCF, future inquiries should explore how participating in a CoP can lead to the creation of collective value. This might be achieved by asking questions specific to the CoP’s collective efforts (e.g., What activities did the CoP engage in? As a group, how did the CoP benefit from the activities?), or by creating collective narratives based on the corroborating experiences within the CoP. Further, coach education researchers should consider using the VCF during the planning phases of designing and implementing CoPs. In other words, they should consider taking advantage of the VCF to help CoP members reflect on *what* value they might want to create during their participation, and *how* they might engage in the CoP to create those specific cycles of value. For example, one might consider the questions: What types of value would you like to create?; What type of environment can we establish in order to create those cycles of value?.

Wenger and colleagues referred to this as the aspirational aspects of the VCF (Wenger et al., 2011), and can help researchers to be strategic while designing CoPs. Taking into consideration these aspirational aspects at the beginning of a CoP initiative might help coaches and coach education researchers strategically set up the conditions that would enable the creation of the value aspired to by CoP members.

Practical Implications

Sport administrators, coach educators, coach education researchers, and coaches can use the findings and suggestions presented in the present doctoral dissertation. Study One illustrates how feasible it is to implement CoPs in youth sport settings, by demonstrating how it is possible to create a CoP and obtain buy-in from coaches. Stakeholders can consider the findings from Study One, and reflect on how the CoP was designed, implemented, and assessed. They can use this information to guide the design and implementation of future CoPs in practical sport settings. Study One highlights the need for stakeholder (i.e., sport administrators) buy-in and support. Stakeholders can use these findings to guide their interactions with the CoP and the support they offer to it. For example, Study One shows that stakeholders must demonstrate their buy-in and support by ensuring that other demands placed on coaches do not interfere with the CoP's gatherings (e.g., do not schedule mandatory meetings when CoP meetings have already been scheduled).

The findings from Study One suggest that there are key factors that affect the value created by the CoP. For instance, the facilitator and members must ensure that the purpose of the CoP is clear and that all members are dedicated to pursuing the same objectives (e.g., coach learning and development). If there are members or stakeholders who do not agree with the objectives, the effectiveness of the CoP might be compromised. The facilitator and members must also ensure

there is ongoing engagement in the CoP (e.g., regularly scheduled meetings, and means for engagement outside of scheduled meetings). Furthermore, findings from Study One indicate that while implementing a CoP, the stakeholders and members should encourage each other to take on various roles, which will enhance the effectiveness of the CoP (e.g., the roles outlined by Wenger-Trayner & Wenger-Trayner, 2013). By fulfilling some of those roles, CoP members can create an environment where more than one member (i.e., the facilitator) is contributing to the effectiveness and livelihood of the CoP.

Study Two provides real-world examples of CoPs implemented in the university sport setting. The findings show that coaches can take the lead and implement CoPs in their specific sport contexts. By using the findings from Study Two, coaches can map out how to create a CoP in their context, and provide rationale for others who might consider joining them. Further, Study Two demonstrates that the coaches can align their efforts and obtain support from the athletic administration, highlighting the fact that they do not have to take on these initiatives alone; they can obtain buy-in and backing that might enhance the effectiveness and sustainability of the CoP. Additionally, rather than creating a one-size-fits-all design and conducting facilitator training sessions, the findings from Study Two demonstrate that coach educators can urge coaches to create CoPs in their real-world settings. Coach educators can use the findings to provide coaches with an idea of what CoPs might look like in their setting and how they can be facilitated, leaving the facilitation up to coaches who wish to take on the responsibility and become advocates for implementing CoPs. This approach could be a first step in implementing CoPs on broader scale (e.g., regionally or nationally), across various sport contexts. Coaches may begin to create CoPs in their own settings if they are encouraged to do so. Once they have been created, national governing

bodies could then begin to monitor and help guide them, which might lead to a larger system of CoPs throughout sport structure, region, or nation.

Together, the findings from Study One and Study Two can inform coach educators about the importance of implementing CoPs on a broader scale. The VCF allowed the researcher to conduct an in-depth exploration into how coaches can benefit from participating in CoPs; to date, no scholarly works have explored the impact of participating in CoPs on coaches' learning and performance in such detail. Coach educators can use this information to justify the need to support coach learning and development after the initial certification process. They can also use the findings from the present doctoral dissertation as a template for implementing CoPs across a wide range of contexts (i.e., youth through to high-performance contexts). Finally, the findings further suggest that Wenger and colleagues' (2011) VCF can be employed effectively to assess the value created in CoPs, providing a universal evaluation tool. Coach educators who wish to utilise the VCF could then compare findings from various CoPs in similar contexts to explore how different design elements and members' participation might impact the effectiveness of CoPs.

General Conclusion

Communities of practice have been used within a variety of settings to enhance the learning and development of practitioners. The present doctoral dissertation adds to the literature on CoPs for sport coaches by contributing to our understand of: (a) how CoPs can be designed and implemented in two sport settings: a youth soccer organisation and in the university sport setting, (b) what value can be created by participating in CoPs, (c) how CoPs have been sustained in a university sport setting, and (d) how value creation in CoPs can be assessed using Wenger et al.'s (2011) VCF. The findings from the present dissertation demonstrated that the participants benefited significantly by creating value while engaging in CoPs, and that their involvement in the

CoPs provided them with meaningful and relevant opportunities to engage in ongoing learning and development. The present dissertation contributed to the literature in a number of ways by demonstrating that: (a) participating in CoPs has a significant impact on coaches' learning and coaching practices, (b) CoPs enhance the learning and development of coaches regardless of their level of experience, (c) CoPs are effective in high-performance settings when implemented properly and nested within a non-competitive context, (d) CoP facilitators do not need to be formally trained, but can facilitate a CoP if they exemplify certain characteristics, and (e) the VCF is a useful tool to assess value creation in CoPs nested in youth sport and university sport settings. By providing a concrete example of CoPs implemented in youth sport and university sport settings, the present dissertation can inform coach educators on why and how to implement CoPs into sport coaching contexts. However, there remains a need to further explore the use of CoPs and what value is created within them. Further inquiries that explore participating in CoPs might lead to a better understanding of the impact on coaches' learning and coaching practices, and how we can implement CoPs on a broader scale.

Statement of Contribution

I, Rachael Bertram, was responsible for gathering and analyzing the data throughout the duration of the doctoral dissertation and in both study one and study two. I was entirely responsible for writing every section of this dissertation: introduction, conceptual framework, methodology, all three articles, general discussion, conclusion, and appendices. Dr. Diane Culver reviewed all three articles, as well as the entire thesis, on a number of occasions. Dr. Culver also provided valuable feedback on the overall design of the study, as well as the organisation and content of each article. Additionally, Dr. Culver ensured that the VCF and social learning theories were accurately applied and described. Thus, Dr. Culver's contribution was at the conceptual and organisational level. Dr. Culver also conducted the bracketing interviews that I used to explore my assumptions in regard to conducting this dissertation. Dr. Wade Gilbert reviewed all three articles on a handful of occasions, and provided valuable feedback as it relates to the organisation and content of each article. Both Dr. Culver and Dr. Gilbert ensured that that the articles respected journal guidelines.

References

- Akerson, V. L., Cullen, T. A., & Hanson, D. L. (2009). Fostering a community of practice through a professional development program to improve elementary teachers' views of nature of science and teaching practice. *Journal of Research in Science Teaching*, 46(10), 1090-1113.
- Alliance of Women Coaches. (2014). *Re: About us* [Web post]. Retrieved from <http://allianceofwomenscoaches.org/about/>
- Armour, K. M. (2010). The learning coach...the learning approach: Professional development for sports coach professionals. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 153-64). London: Elsevier.
- Barnson, S. C. (2010). Communities of coaches: The missing link. *Journal of Physical Education, Recreation and Dance*, 81(7), 25-29, 37.
- Barrett, M. S., Ballantyne, J., Harrison, S., & Temmerman, N. (2009). On building a community of practice: Reflective narratives of academic learning and growth. *Reflective Practice*, 10(4), 403-416.
- Barwick, M. A., Peters, J., & Boydell, K. (2009). Getting to uptake: Do communities of practice support the implementation of evidence-based practice? *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 18, 16-29.
- Becker, H. S. (1970). *Sociological work: Method and substance*. Chicago: Aldine.
- Bertram, R., & Gilbert, W. (2011). Learning communities as continuing professional development for sport coaches. *Journal of Coaching Education*, 4(2), 40-61.

- Bertram, R., Paquette, K., Duarte, T., & Culver, D. (2014). Assessing the value created through participating in a graduate studies community of practice. *Transformative Dialogues: Teaching and Learning Journal*, 7(1), 1-14.
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., & Wallace, M. (2005). *Creating and sustaining professional learning communities*. (Research Report No. 637). London, England; General Teaching Council for England, Department for Education and Skills.
- Bray, J. N., Lee, J., Smith, L. L., & Yorks, L. (2000). *Collaborative inquiry in practice: Action, reflection, and making meaning*. Thousand Oaks, CA: Sage.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Callary, B. (2013). Coaches create and sustain a community of practice. *PHEnex Journal*, 4(3), 1-13.
- Carter, A. D., & Bloom, G. A. (2009). Coaching Knowledge and Success: Going Beyond Athletic Experiences, *Journal of Sport Behavior*, 32(4), 419-437.
- Cassidy, T., Potrac, P., & McKenzie, A. (2006). Evaluating and reflecting upon a coach education initiative: The CoDe of rugby. *The Sport Psychologist*, 20, 145-161.
- Chandler, L., & Fry, A. (2009). Can communities of practice make a meaningful contribution to sustainable service improvement in health and social care? *Journal of Integrated Care*, 17, 41-48.
- Cole, M., & Scribner, S. (1978). Introduction. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Mind in society: Development of higher psychological processes* (pp. 1-14). Cambridge, MA: Harvard University Press.

- Cuddapah, J. L., & Clayton, C. D. (2011). Using Wenger's communities of practice to explore a new teacher cohort. *Journal of Teacher Education*, 62(1), 62-75.
- Culver, D., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the potential for learning through interactions. In R. L. Jones (Ed.), *The sports coach as educator: Reconceptualising sports coaching* (pp. 97-112). London: Routledge.
- Culver, D., Trudel, P., & Werthner, P. (2009). A sport leader's attempt to foster a coaches' community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365-383.
- Cushion, C., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R., & O'Callaghan, C. (2010). Coach learning and development: A review of literature. Leeds: Sports Coach UK.
- Dewey, J. (1938). *Experience and education*. New York: Collier.
- Duffy, T. M., & Cunningham, D. J. (1996). Constructivism: Implications for the design and delivery of instruction. In D. Jonassen (Ed.), *Handbook of Research for Educational Communications and Technology* (pp. 170-198). New York: Simon & Schuster Macmillan.
- Dunne, F., Nave, B., & Lewis, A. (2000). Critical friends groups: Teachers helping teachers to improve student learning. *Phi Delta Kappan*, 28, 9-12.
- Edwards, A. (2005). Let's get beyond community and practice: The many meanings of learning by participating. *The Curriculum Journal*, 16(1), 49-65.
- Eisner, E. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practices*. New York: Macmillan.
- Gilbert, W., Gallimore, R., & Trudel, P. (2009). A learning community approach to coach development in youth sport. *Journal of Coaching Education*, 2(2), 1-21.

- Gilbert, W. D., Lichtenwalder, L., Gilbert, J. N., Zelezny, L., & Côté, J. (2009). Developmental profiles of successful high school coaches. *International Journal of Sports Science & Coaching*, 4, 415-431.
- Gilbert, W. D., & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16-34.
- Gilbert, W., & Trudel, P. (2006). Coaching and coach education. In D. Kirk, D. MacDonald, & M. O'Sullivan (Eds.), *The Handbook of physical education* (pp. 516-539). Newbury Parks, CA: Sage.
- Gruenhagen, L. M. (2012). Learning in practice: A first-year early childhood music teacher navigates the complexities of teaching. *Research Studies in Music Education*, 34(1), 29-44.
- Guba, E. G. (1996). What happened to me on the road to Damascus. In L. Heshusius & K. Ballard (Eds.), *From positivism to interpretivism and beyond: Tales of transformation in educational and social research* (pp. 43-49). New York: Teachers College Press.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Thousand Oaks, CA: Sage.
- Hemmasi, M., & Csanda, C. M. (2009). The effectiveness of communities of practice: An empirical study. *Journal of Managerial Issues*, 21(2), 262-279.
- Herdrich, B., & Lindsay, A. (2006). Nurse residency programs: Redesigning the transition into practice. *Journal for nurses in staff development*, 22(2), 55-62.

- Heron, J. (1996). *Co-operative inquiry: Research into the human condition*. London: Sage.
- Heron, J., & Reason, P. (1997). A participatory inquiry paradigm. *Qualitative Inquiry*, 3(3), 274-294.
- Hew, K. F., & Hara, N. (2006). Identifying factors that encourage and hinder knowledge sharing in a longstanding online community of practice. *Journal of Interactive Online Learning*, 5(3), 297-316.
- Hollins, E. R., McIntyre, L. R., DeBose, C., Hollins, K. S., & Towner, A. (2004). Promoting a self-sustaining learning community: Investigating an internal model for teacher development. *International Journal of Qualitative Studies in Education*, 17(2), 247-264.
- International Council for Coaching Excellence, Association of Summer Olympic International Federations, & Leeds Metropolitan University. (2013). *International sport coaching framework* (version 1.2). Champaign, IL: Human Kinetics.
- Janesick, V. J. (2011). *"Stretching" exercises for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage.
- Jarvis, P. (1992). *Paradoxes of learning: On becoming an individual in society*. San Francisco: Jossey-Bass.
- Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. New York: Routledge.
- Jarvis, P. (2009). *Learning to be a person in society*. New York: Routledge.
- Jones, R. L., Armour, K. M., & Potrac, P. (2004). *Sports coaching cultures: From practice to theory*. New York: Routledge.
- Jones, R. L., Harris, R. A., & Miles, A. (2009). Mentoring in sports coaching: A review of the literature. *Physical Education and Sport Pedagogy*, 14(3), 267-284.

- Larocque, L. (2006). *Learning as a process of becoming within communities of practice: A multiple case study of moose hunters in northern Ontario* (Unpublished doctoral dissertation). University of Ottawa, Ontario, Canada.
- Lave, J. A. (1982). A comparative approach to educational forms and learning processes. *Anthropology and Education Quarterly*, 8(2), 181-187.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Lemyre, F. (2008). La réflexion et les communautés de pratique pour faciliter l'apprentissage par expérience des entraîneurs (Reflection and communities of practice for facilitating coaches' learning from experience). (Doctoral dissertation). University of Ottawa, Ottawa, Canada.
- Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *The Sport Psychologist*, 21, 191-209.
- Li, L. C., Grimshaw, J. M., Nielsen, C., Judd, M., Coyte, P. C., & Graham, I. D. (2009). Use of communities of practice in business and health care sectors: A systematic review. *Implementation Science*, 4(27), 16.
- Lincoln, Y. S., & Guba, E. A. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Mallett, C. J. (2010). Becoming a high-performance coach: Pathways and communities. In J. Lyle and C. Cushion (Eds.), *Sports Coaching: Professionalisation and practice* (pp. 119-134). London: Elsevier.
- Marshall, D. (2010). Introduction. In S. Robertson (Ed.), *Taking the lead: Strategies and solutions from female coaches* (pp. xv-xxix). Edmonton, Alberta: The University of Alberta Press.

- Mathison, S. (1988). Why triangulate? *Educational Researcher*, 17(2), 13-17.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: Sage.
- Merriam, S. B. (2002). Introduction to qualitative research. In S. B Merriam (Ed.), *Qualitative research in practice: Examples for discussion and analysis* (pp. 3-17). San Francisco: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Millen, D. R., & Fontaine, M. A. (2003, November). Improving individual and organizational performance through communities of practice. Proceedings of the International ACM SIGGROUP conference on Supporting Group Work (pp. 205-211).
- Moon, J. (2010). *Using story: In higher education and professional development*. New York: Routledge.
- Nelson, L., Cushion, C., & Potrac, P. (2006). Formal, nonformal, and informal coach learning: A holistic conceptualisation. *International Journal of Sports Science and Coaching*, 1, 247-259.
- O'Sullivan, M. (2007). Creating and sustaining communities of practice among physical education professionals. *Journal of Physical Education*, 40(1), 10-13.
- Paquette, K. J., Hussain, A., Trudel, P., & Camiré, M. (2014). A sport federation's attempt to restructure a coach education program using constructivist principles. *International Sport Coaching Journal*, 1, 75-85.

- Polanyi, M. (1962). *Personal knowledge*. Chicago, IL: University of Chicago Press.
- Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. *International Journal of Qualitative Studies in Education*, 8(1), 5-23.
- Polkinghorne, D. (1988). *Narrative knowing and the human sciences*. Albany, NY: State University of New York Press.
- Qualitative Solution and Research. (2012). N*Vivo (Version 10.0) [Computer software]. Doncaster, Australia: Qualitative Solution and Research.
- Rangeon, S., Gilbert, W., & Bruner, M. (2012). Mapping the world of coaching science: A citation network analysis. *Journal of Coaching Education*, 5(1), 83-113.
- Ranmuthugala, G., Plumb, J. J., Cunningham, F. C., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2011). How and why are communities of practice established in the healthcare sector? A systematic review of literature. *BMC Health Services Research*, 11(1), 273-288.
- Robey, D., Khoo, H. M., & Powers, C. (2000). Situated learning in cross-functional virtual teams. *Journal of the Society for Technical Communication*, 47, 51-66.
- Rossignol, M., Poitras, S., Dionne, C., Tousignant, M., Truchon, M., Arsenault, B., Allard, P., Cote, M., & Neveu, A. (2007). An interdisciplinary guideline development process: The Clinic on Low-back pain in Interdisciplinary Practice (CLIP) low-back pain guidelines. *Implementation Science*, 2(1), 36.
- Rynne, S. B., Mallett, C. J., & Tinning, R. (2010). Workplace learning of high performance sports coaches. *Sport, Education, and Society*, 15(3), 315-330.
- Saint-Onge, H., & Wallace, D. (2003). *Leveraging communities of practice for strategic advantage*. Boston, MA: Butterworth-Heinmann.

- Schenkel, A., & Teigland, R. (2008). Improved organizational performance through communities of practice. *Journal of Knowledge Management*, 12(1), 106-118.
- Sharratt, M., & Usoro, A. (2003). Understanding knowledge-sharing in online communities of practice. *Knowledge Management*, 1(2), 187-196.
- Shweder, R. A. (1980). *Fallible judgment in behavioral research*. San Francisco: Jossey-Bass.
- Supovitz, J. A. (2002). Developing communities of instructional practice. *Teachers College Record*, 104(8), 1591-1626.
- Tolson, D., Booth, J., & Lowndes, A. (2008). Achieving evidence-based nursing practice: Impact of the Caledonian Development Model. *Journal of Nursing Management*, 16, 682-691.
- Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach-learner's perspective: Considerations for coach administrators. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 375-87). London: Routledge.
- Trudel, P., & Gilbert, W. (2004). Communities of practice as an approach to foster ice hockey coach development. In D. J. Pearsall & A. B. Ashare (Eds.), *Safety in Ice Hockey* (Volume 4) (pp. 167-179). West Conshohoken: ASTM International.
- Trudel, P., Gilbert, W., & Werthner, P. (2010). Coach education effectiveness. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 135-152). London: Elsevier.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*.

Cambridge, MA: Harvard University Press.

Walker, J. S., Bruns, E. J., Conlan, L., & LaForce, C. (2011). The national wraparound initiative:

A community of practice approach to building knowledge in the field of children's mental health. *Best Practices in Mental Health*, 7(1), 26-46.

Wenger, E. (1998). *Communities of practice: Learning meaning and identity*. New York:

Cambridge.

Wenger, E. (2011). Communities of practice: A brief introduction. *National Science Foundation*.

Available at

<https://scholarsbank.uoregon.edu/jspui/bitstream/1794/11736/1/A%20brief%20introduction%20to%20CoP.pdf>

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Press.

Wenger, E., Trayner, B., & De Laat, M. (2011). *Promoting and assessing value creation in communities and networks: A conceptual framework*. (Research Report No. 18). Ruud de Moor Centrum, Open University of the Netherlands.

Wenger-Trayner, E., & Wenger-Trayner, B. (2013). Leadership groups: Distributed leadership in social learning. Retrieved from <http://wenger-trayner.com/resources/practice/disciplines-of-social-learning-leadership/>

Wenger-Trayner, E., & Wenger-Trayner, B. (2015). Learning in a landscape of practice. In E. Wenger-Trayner, M. Fenton-O'Creevy, S. Hutchinson, C. Kubiak, & B. Wenger-Trayner (Eds.), *Learning in landscapes of practice: Boundaries, identity, and knowledgeability in practice-based learning* (pp. 13-29). New York: Routledge.

- Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, 20, 198-212.
- Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. *Qualitative Health Research*, 11(4), 522-537.
- Wilson, L., Bloom, G. A., & Harvey, W. (2010). Sources of knowledge acquisition: Perspectives of the high school teacher/coach. *Physical Education & Sport Pedagogy*, 15(4), 383-399.

Appendices

Appendix A

Timeline of Studies

Study One

Phase 1: Design

- September 2013 to January 2014: Tentative Design
- February 5, 2014: First Meeting

Phase 2: First Interview

- February 20-25, 2014

Phase 3: Community of Practice Gatherings

- February 5, 2014: First Meeting
- February 12, 2014: Second Meeting
- February 27, 2014: Third Meeting
- March 19, 2014: Fourth Meeting
- April 2, 2014: Fifth Meeting
- April 17, 2014: Sixth Meeting
- May 7, 2014: Seventh Meeting
- May 29, 2014: Eighth Meeting

Phase 4: Second Interview

- August 13 to August 27, 2014

Phase 5: Coach-Participant Validation

- October 2014 to April 2015

Study Two

1) Contacting potential participants

- January 2014 to April 2014

2) Interview with staff member at the Alliance of Women Coaches

- April 29, 2014

3) Interview with LG members at five different universities

- April to July 2014

4) Member-checking

- April to August 2014

Appendix B

Ethics Approval

File Number: H08-13-24

Date (mm/dd/yyyy): 09/06/2013



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice

Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Diane	Culver	Health Sciences / Human Kinetics	Supervisor
Rachael	Bertram	Health Sciences / Human Kinetics	Student Researcher

File Number: H08-13-24

Type of Project: PhD Thesis

Title: Implementing, assessing, and sustaining sport coach communities of practice

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
09/06/2013	09/05/2014	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:

N/A

File Number: H08-13-24

Date (mm/dd/yyyy): 09/06/2013



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement and other applicable laws and regulations in Ontario, has examined and approved the application for ethical approval for the above named research project as of the Ethics Approval Date indicated for the period above and subject to the conditions listed the section above entitled "Special Conditions / Comments".

During the course of the study the protocol may not be modified without prior written approval from the REB except when necessary to remove subjects from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the study (e.g. change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, information/consent documentation, and/or recruitment documentation, should be submitted to this office for approval using the "Modification to research project" form available at: <http://www.research.uottawa.ca/ethics/consent.html>.

Please submit an annual status report to the Ethics Office four weeks before the above-referenced expiry date to either close the file or request a renewal of ethics approval. This document can be found at: <http://www.research.uottawa.ca/ethics/consent.html>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Appendix C

Ethics Renewal

File Number: H08-13-24



Date (mm/dd/yyyy): 10/20/2014

Université d'Ottawa **University of Ottawa**
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

Ethics Renewal Notice Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Diane	Culver	Health Sciences / Human Kinetics	Supervisor
Rachael	Bertram	Health Sciences / Human Kinetics	Student Researcher

File Number: H08-13-24

Type of Project: PhD Thesis

Title: Implementing, assessing, and sustaining sport coach communities of practice

Renewal Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
09/06/2014	09/05/2015	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:
N/A

File Number: H08-13-24

Date (mm/dd/yyyy): 10/20/2014



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://www.research.uottawa.ca/ethics/forms.html>.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://www.research.uottawa.ca/ethics/forms.html>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Appendix D

Study One – Letter of Informed Consent

Project Title: Designing, implementing, assessing, and sustaining communities of practice within sport settings

Investigators:

Rachael Bertram, MA
PhD Candidate
School of Human Kinetics
University of Ottawa

Diane Culver, PhD
Research Supervisor
School of Human Kinetics
University of Ottawa

INVITATION

You are invited to participate in the abovementioned research study conducted by PhD candidate Rachael Bertram and Dr. Diane Culver of the University of Ottawa. The purposes of the study are to: (a) design and implement a community of practice within a sport setting, and (b) explore how coaches are influenced by their participation in the two aforementioned communities of practice.

WHAT'S INVOLVED

As a participant in the newly implemented community of practice, you will be asked to collaboratively design and participate in the community of practice, participate in two individual interviews lasting approximately 60 minutes, and participate in one focus group interview lasting approximately 60-90 minutes. The first individual interview will be conducted in the beginning of the study and will explore: (1) your coaching biography, (2) your expectations for your participation in the community of practice, and (3) what you hope to get throughout your participation in the community of practice. The second individual interview will be conducted at the end of the study and will explore: (1) perceptions of the community of practice, (2) how you participate in the community of practice, (3) how you are influenced by your participation in the community of practice, and (4) recommendations you might have for implementing communities of practice within other sport settings. Furthermore, you will be asked to participate in one focus group, which will be held towards the end of the study and will attempt to further explore the questions asked within the individual interviews as well as the findings that will be presented to the community of practice. Each interview and focus group will be audiotaped and transcribed verbatim, and you will have the chance to edit and revise your responses.

POTENTIAL BENEFITS AND RISKS

Your feedback is very important as it may help enhance the quality and effectiveness of coach education initiatives moving forward. Possible benefits of participation include developing coaching knowledge and expertise, networking and developing beneficial connections with other coaches in your sport, gaining a better understanding of how to learn through collaboration with other coaches, and gaining access to other experts within your coaching domain. Moreover, following the completion of the study, recommendations will be made for how coaches might continue participating in the community of practice (or similar group) in order to continue

developing coaching knowledge and expertise with others. Other than requiring your time and effort, there are however no known risks associated with participation in this study.

CONFIDENTIALITY

The information that you share will remain strictly confidential. The data and analyses of the data will be kept at the University of Ottawa in both Rachael Bertram and Dr. Diane Culver's locked offices on password protected computers, and will be kept for ten years beginning once all data has been collected. At the end of the ten years all the data will be deleted or destroyed.

VOLUNTARY PARTICIPATION

Your participation in this research is voluntary and you are free to withdraw or refuse to answer any questions at any time and without any negative consequences.

PUBLICATION OF RESULTS

Results of this study may be published in academic and professional journals, and presented at conferences. Feedback about this study will be available through Rachael Bertram at the phone number and email address given above.

CONTACT INFORMATION AND ETHICS

If you have any questions, comments, or concerns about this study or your rights as a research participant, please contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5 Tel.: (613) 562-5387 Email: ethics@uottawa.ca.

CONSENT

I agree to participate in this study described above. I have made this decision based on the information I have read in this Information-Consent Letter.

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

☐ YES

☐ NO

I will have the opportunity to re-examine and modify, if necessary, the information that I have given. That is, at the end of my interview, I will be given the chance to remove or add to any portions of the interview. I will also receive a copy of my interview transcript and will be able to make additional changes before analysis begins.

I would like to receive the material:

☐ via e-mail or ☐ hard-copy traditional mail

E-mail address: _____ or

Mailing address: _____

Please note that no additional security measures will be taken during this exchange of information. That is, the material will be exchanged as a regular e-mail attachment or in a regular standard letter mail service through Canada Post.

I, _____, agree to participate in this research led by Rachael Bertram and Dr. Diane Culver of the School of Human Kinetics from the Faculty of Health Sciences at the University of Ottawa.

(Participant's signature)

(Date)

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

Appendix E

Study One – Interview Guide 1

1. Can you please provide a brief overview of your biography?
2. How long have you been coaching in your current position?
3. What circumstances led you to coach at your current position?
4. After the first meeting where we discussed the design of the coaching group, do you have any thoughts or expectations about the group?
5. What are your expectations for participating in the group?
6. Do you think participating in the group will affect your coaching performance?
7. Do you think participating in the group will affect other aspects of your life?
8. What do you hope to gain or learn from the group?
9. Do you have any additional comments or thoughts to add?

Appendix F
Study One – Top 10 Master List

- 1) Coaching responsibilities
 - a. What are they?
 - b. How do you fulfill them?
- 2) Time management
 - a. Effective practice and season plans
 - b. Transitions
 - c. On Track
 - d. Strategies
 - e. Adjusting
- 3) Dealing with conflicts
 - a. Player
 - b. Parents
 - c. Other coaches (head/assistant)
- 4) Psycho-social aspects
 - a. Developing the whole person
 - b. Holistic coaching
 - c. Life skills
- 5) Communication
 - a. Feedback
 - b. Effective communication
 - c. Strategies
 - d. Balance between feedback for team vs. individual
 - e. Different personalities
- 6) Motivation
 - a. Keeping players engaged during practices
 - b. Keeping players engaged during games
 - c. Raising the bar
 - d. How to get the most out of athletes
- 7) Team management
 - a. Engagement
 - b. Commitment
 - c. Choosing captains
 - d. Fostering leadership
 - e. Role of head vs. assistant coaches
- 8) Team building
 - a. Getting players to work together as a team
 - b. Differences between males and females
- 9) Coaching behaviours
 - a. Good coaching behaviours/habits
 - b. Bad coaching behaviours/habits
- 10) Other
 - a. Use of technology
 - b. Coaching athletes in puberty
 - c. Releases

Appendix G

Study One – Post Gathering Reflection Questions

Review of session

1. Did you find this gathering beneficial to your coaching?
 - a. If yes, what were you able to take from the meeting?
 - b. If not, what could have been better?

Game plan

2. Will you be able to apply what you took from this gathering to your coaching?
 - a. If yes, how and when?
 - b. If not, why?
3. What are some potential obstacles? How might you overcome them?

Prep for next meeting

4. Based on your participation this time, what do you hope to bring to next gathering?

Appendix H

Study One – Example Post on Basecamp.com

Lisa's post meeting driving home thoughts

“So I hope it is ok to add a few thoughts randomly here. As I was driving home I was thinking about our conversation and how underlying many comments is our insecurities as coaches, not thinking we are good enough, feeling pressured to have answers, etc. And I was in parallel thinking about how as coaches we are all wrestling with the approach of being a 'facilitator', using guided discovery methods, supporting players to develop problem solving skills - in essence recognizing that there is never 'an' answer and that we want the players both individually and then Collectively as a team to problem solve.

It made me wonder why do we as coaches not try to coach ourselves as we coach the players? Ironically we seem to expect the opposite of ourselves from what we try to nurture in our players: we perceive that someone will be criticizing us for not 'giving the answers' when we believe that players need to be good at problem solving (which in my line of work usually begins with asking good questions).

Basically, who is coaching the coaches, giving us the confidence in ourselves to facilitate, to be comfortable with 'silences' instead of filling the air with our 'knowledge', to learners just like the players? I think that we coaches need someone who is facilitating us to be problem solvers (which includes making mistakes, correcting, learning), just as we are facilitating this in our players.

Which of course put me in mind of the article we read in which Bias had a mentor who was doing exactly that- encouraging him to make mistakes, question, listen, reflect, as opposed to 'filling the empty vessels'. It would be very interesting to see how a CoP could play the role of mentor, facilitator, etc. and give all participants confidence and comfort not having all the answers.”

Appendix I

Study One – Example of Researcher's Observation Notes

Meeting 2, February 12, 2014

Topic: Psycho-social aspects

Attendees: all five coaches

Notes from discussion on topic

- What is holistic coaching?
 - o Focusing on entire athlete
 - o Sport skills, psychosocial skills, life skills
 - What you want to develop depends on team
- Discusses personality types and how to interact with them
- Brings up birth order and siblings (influences the attitudes of child)
- Pressure from parents to develop certain things
 - o Solutions: explain to parents your objectives, try to get parents on board with parent meeting, support your practices with tools that outline various athlete outcomes, don't let parents pressure you (know that you are pursuing the right goals).
- Use of 'guided discovery' can be effective in engaging athletes
- How are you hitting all the various skills you want them to develop?
 - o Keep an open mind, keep a list and have it with you at all times, reference list before each practice, reflect after practice to see what you did to either develop that skill or not

Additional topics (immediate issues)

- Parents not picking up kids on time
 - o Solutions: wait a day to calm down and send email or phone letting the parent know why it is important to be there 15 minutes before practice ends, hold parent meeting with expected behaviours and practices, ask the child to remind parents when practice ends and to be on time, ask the parent to set a reminder in their phone.

Additional reflections

- All coaches engaged in conversation
- All coaches providing suggestions, advice, or insight into each topic
- Coaches have interesting and insightful solutions to problems
 - o Some are ideas, some have been used before

To Do:

- Post notes on Basecamp
- Create thread for coaches to post their reflection questions into
- Send out email reminder about next meeting
- Research and bring some ideas for next meeting

Appendix J

Study One – Interview Guide 2

1. What are your overall perceptions of the coaching group?
2. Can you please discuss your participation in the group this past season?
 - a. What happened and what was your experience of it?
3. What are your thoughts on how the group was created and implemented?
4. What has all this activity produced?
 - a. Did you gain or learn anything from participating in the group?
 - b. How has your participation changed your social relationships?
 - c. Are there any tools or techniques that were developed through your participation in this group?
5. Has it made a difference to your practice/life/context? If yes:
 - a. What aspects of your performance have been affected by your participation in the community?
 - b. What aspects of your life have been affected by your participation in the community?
 - c. Where have you used the products of the community?
 - d. Where did you apply a skill you acquired?
6. What difference has participating in the group made to your ability to achieve what matters to you or other stakeholders?
7. Has it changed your or other stakeholders' understanding and definition of what matters?
8. Are there any strengths or positives about the group? If yes, what are they?
9. Are there any weaknesses or negatives about the group? If yes, what are they?

10. How do you think the coaching group could be modified to better serve its members?
11. What factors might contribute to sustaining this group?
12. *Other questions related to data analysis throughout the proposed study.*
13. Do you have any other comments or thoughts to add?

Appendix K

Study Two – Letter of Informed Consent

Project Title: Designing, implementing, assessing, and sustaining communities of practice within sport settings

Investigators:

Rachael Bertram, MA
PhD Candidate
School of Human Kinetics
University of Ottawa

Diane Culver, PhD
Research Supervisor
School of Human Kinetics
University of Ottawa

INVITATION

You are invited to participate in the abovementioned research study conducted by PhD candidate Rachael Bertram and Dr. Diane Culver of the University of Ottawa. The purposes of the study are to: (a) design and implement a community of practice within a sport setting, (b) explore how members participate within an existing community of practice, and (c) explore how coaches are influenced by their participation in the two aforementioned communities of practice.

WHAT'S INVOLVED

As a participant in an existing community of practice, you will be asked to take part in one individual interview lasting approximately 60 minutes. The interview will be audio-taped and will explore (1) how you participate in the community of practice, (2) how you are influenced by your participation in the community of practice, and (3) recommendations you might have for implementing communities of practice within other sport settings. Furthermore, you will be asked to participate in one focus group that will be audio-taped and will attempt to further explore the questions asked within the individual interviews.

As a participant in the newly implemented community of practice, you will be asked to collaboratively design and participate in the community of practice, and participate in one individual interview lasting approximately 60 minutes. The interview will be audio-taped and will explore (1) your perceptions of the community of practice, (2) how you participate in the community of practice, (3) how you are influenced by your participation in the community of practice, and (4) recommendations you might have for implementing communities of practice within other sport settings. Furthermore, you will be asked to participate in one focus group that will be audio-taped and will attempt to further explore the questions asked within the individual interviews.

POTENTIAL BENEFITS AND RISKS

Your feedback is very important as it may help enhance the quality and effectiveness of coach education initiatives moving forward. Possible benefits of participation include having a better understanding of your participation within the community of practice and the benefits you gain throughout your participation. Moreover, following the completion of the study, recommendations

will be made for how the community of practice might be modified to better serve its members. There are however no known risks associated with participation in this study.

CONFIDENTIALITY

The information that you share will remain strictly confidential. The data and analyses of the data will be kept at the University of Ottawa in both Rachael Bertram and Dr. Diane Culver's locked offices on password protected computers, and will be kept for ten years beginning once all data has been collected. At the end of the ten years all the data will be deleted or destroyed.

VOLUNTARY PARTICIPATION

Your participation in this research is voluntary and you are free to withdraw or refuse to answer any questions at any time and without any negative consequences.

PUBLICATION OF RESULTS

Results of this study may be published in academic and professional journals, and presented at conferences. Feedback about this study will be available through Rachael Bertram at the phone number and email address given above.

CONTACT INFORMATION AND ETHICS

If you have any questions, comments, or concerns about this study or your rights as a research participant, please contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5 Tel.: (613) 562-5387 Email: ethics@uottawa.ca.

CONSENT

I agree to participate in this study described above. I have made this decision based on the information I have read in this Information-Consent Letter.

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

☐ YES

☐ NO

I will have the opportunity to re-examine and modify, if necessary, the information that I have given. That is, at the end of my interview, I will be given the chance to remove or add to any portions of the interview. I will also receive a copy of my interview transcript and will be able to make additional changes before analysis begins.

I would like to receive the material:

☐ via e-mail or ☐ hard-copy traditional mail

E-mail address: _____ or

Mailing address: _____

Please note that no additional security measures will be taken during this exchange of information. That is, the material will be exchanged as a regular e-mail attachment or in a regular standard letter mail service through Canada Post.

I, _____, agree to participate in this research led by Rachael Bertram and Dr. Diane Culver of the School of Human Kinetics from the Faculty of Health Sciences at the University of Ottawa.

(Participant's signature)

(Date)

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

Appendix L

Study Two – Interview Guide

1. Can you please provide a brief overview of your biography?
2. How long have you been coaching in your current position?
3. What circumstances led you to coach at your current position?
4. Have you participated in the coaching group before? If yes, how long have you participated in this group?
5. How was this group created?
6. Who are the members in the group?
7. How does the group function?
8. How has the group been sustained?
 - a. What do you think are the main contributing factors to its sustainability?
9. What are your overall perceptions of the group?
10. Can you please discuss your participation in the Loop Group?
 - c. What happened and what was your experience of it?
11. What has all this activity produced?
 - a. Did you gain or learn anything from participating in the group?
 - b. How has your participation changed your social relationships?
 - c. Are there any tools or techniques that were developed through your participation in this group?
 - d. Where have you used these tools or techniques?
12. Has it made a difference to your practice, life, or context? If yes:

- a. What aspects of your performance have been affected by your participation in the community?
 - b. What aspects of your life have been affected by your participation in the community?
 - c. Where did you apply a skill you acquired?
13. What difference has participating in the Loop Group made to your ability to achieve what matters to you or other stakeholders?
14. Has it changed your or other members' understanding and definition of what matters?
15. Are there any strengths or positives about the group? If yes, what are they?
16. Are there any weaknesses or negative about the group? If yes, what are they?
17. How do you think the Loop Group could be modified to better serve its members?
18. Do you have any other comments or thoughts to add?

Appendix M

Bracketing Interview Guide

1. Your thesis will be on what theme? In what sport context (youth, recreation, elite)?
2. What is your experience in coaching? What is your experience participating in coach education? What other experiences do you have related to coach education?
3. Tell me about your experience as an athlete?
4. What prior experiences do you have relate to this research?
5. What does a model Community of Practice look like?
6. What are the characteristics of a model PhD student conducting this type of research?
7. What are the characteristics of a model Community of Practice facilitator?
8. How do you think coaches would react to the idea of participating in Communities of Practice?
9. Ideally, how would a coach participate in your study?
10. Why are you doing this research?
11. What do you intend to learn?
12. How will you remain open to alternative ideas related to coach learning and communities practice?
 - a. How will you immerse yourself in this context with open eyes?
 - b. How will you monitor your assumptions throughout the process of your research?
13. How do you plan on generating data?
14. What are the challenges you anticipate facing during your research?

Appendix N

Excerpts from Researcher's Reflective Journal

February 5, 2014

Today was our first meeting. Right from the start, the coaches seemed very interested in participating in the study. All appear to be interested in becoming better coaches, and have not yet had an opportunity to participate in a CoP in sport settings. One mentioned he had participated in one for her job, and another said her husband had been in one and she was always interested to hear about his interactions in his CoP. Overall, I think the first meeting went well. The coaches offered input on the project's design. For example, they wished to meet later in the evening when their schedules were less hectic, but wanted to ensure that we could meet for a sufficient amount of time. They all said one hour was too short, but two hours might take up too much of their evening. So we settled on approximately an hour and a half, but they did say that if we were having a good discussion that they would like to stay longer. Otherwise, if they felt the topic had been covered and they had learned a lot, then we could cut the meeting a few minutes short. All the coaches signed the letter of informed consent, and seemed very excited to begin meeting. We decided that we would use a "Top 10" list of things they wanted to get better at throughout the study. During the upcoming meeting, we will discuss each of our lists, and create a "Master List" that can guide our topics for the remainder of the project.

It is exciting for me to see that the coaches are energetic and enthusiastic about this project. To me, that shows that initiatives like the CoP approach can work, as long as there are coaches who are excited about participating in them. Maybe their excitement will wear off on others, and we can create a long-term CoP at the organisation. I am excited to see how this project unfolds and its influence on the coaches.

May 7, 2014

Today's topic was "Team Management." It was the first meeting where a coach was the facilitator. I think it went very well. The coaches all seemed to be very engaged in the meeting. They were all respectful of the facilitator, and provided her with all their attention. It even seemed that they were even more engaged than usual, not that they were not engaged before. But, the coaches seemed quicker to respond and offer ideas, best practices, and even ask questions. They also did not look to me to guide the discussion as much. Instead, they allowed themselves to go in slightly different directions (like discussing problems that were 'somewhat' related to the topic, but not the exact topic itself). For example, some people had problems with managing parents, which was not the specific topic of the day. However, it was somewhat related, and obviously has an impact on managing your team, so the coaches wanted to touch on that topic as well. Yet, they quickly got back to the main topic and continued discussing. It is clear that the coaches all reflect on the topics in between meetings, and come prepared (they all have notes that they bring with them). In particular, today they had a list of issues they've come across that they wanted to discuss (e.g., how to increase engagement of players in practice, how to increase commitment and buy-in, and how to foster leadership in their players).

Overall, I think the meeting was great. It was interesting to see the difference between when I facilitated and when a peer facilitates. I think it enhanced the coaches' engagement and promoted a more critical and deep discussion. They also seemed better prepared for the meeting, ready to jump in and engage in discussion, and not look to me to guide it as much. This might be because the coaches felt like they wanted to help out the peer who was facilitating. They might also view me as an "expert," where I am supposed to "give" them information. I have tried to

communicate to them that I am not the expert, that in fact they are the experts because they have more knowledge about coaching in their specific sport context with their specific athletes.

However, my presence as a facilitator may have still led them to view me as the expert. During this meeting when a peer was facilitator, maybe they viewed her more so as someone who is just there to share insight, but that they have just as much information and best practices to share... causing them to be more willing to share and discuss the topic. During my facilitation sessions, by no means did I “teach” them anything. I have encouraged them to share their best practices. But maybe they were still sceptical and felt that I was a “researcher” and not a “peer.” It definitely seemed that having a peer as facilitator led them to be very open early on in the meeting. Whereas when I was facilitator, it seemed to take them 10-15 minutes to “warm up” to me and begin sharing and critically discussing the topics. I will have to reflect on this more later, and be sure to ask the coaches about it during the second interview.