AN EXPLORATORY EXAMINATION OF COACH-ATHLETE INTERACTIONS IN ADOLESCENT TEAM SPORT

by

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Abstract

The purpose of this study was to explore coach-athlete interactive behaviours. More specifically, it investigated why coaches choose to interact with their athletes, and why coaches interact with their athletes in a particular manner. Head male coaches, of nine female competitive club soccer teams participated in the current study. Each coach was videotaped and audiotaped during two practices. Each video was uploaded to a computer and reviewed. Coaches then participated in a stimulated recall interview. During the interview, coaches were shown a total of 15 video clips that included footage of themselves interacting with an individual athlete, group of athletes, and the entire team. Coaches were asked to expand on the dynamics of these interactions. The results of the study indicate that when coaches interact with athletes, their reasoning is two-fold: first they decide to interact, and second, they decide the way in which they should interact with their athlete(s) based on several factors. Coaches interacted for one of four reasons: (1) connection to a larger picture, (2) teachable moments, (3) standards of behaviour, and (4) organization. The manner in which coaches interacted with their athletes was influenced by four factors: (1) knowledge of the athlete, (2) degree of athlete input, (3) degree of tolerance, and (4) team unit involved. Together, these results helped to construct a model that illustrates how coaches make decisions with regards to coach-athlete interactive behaviour in context. Preliminary findings indicate that coaching philosophy permeates this entire process.
Co-Authorship

This thesis presents the original work of Sara Buckham in collaboration with her advisor, Dr. Jean Côté.
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Chapter 1

Introduction

Sport has been found as a unique environment where positive youth development is possible (Fraser-Thomas, Côté, & Deakin, 2005; Larson, 2000). While developmental programs, such as sport, have the potential to engage youth and promote positive youth development, it is the group leaders for the most part (i.e., coaches in sport) that are ultimately responsible for the successful implementation of developmental programs and ultimately, the provision of positive developmental experiences (Peterson, 2004; Vella, Oades, & Crowe, 2011). In the sport environment, coaches play a pivotal role in shaping the experiences of their athletes. As a result, it comes as no surprise that a wealth of research has focused on the roles of coaches in sport and their facilitation of positive youth development.

An extensive body of literature has highlighted that coach-athlete interactions may serve as an effective avenue through which to foster positive development in sport. Indeed, relationships and interactions that occur in sport have a big impact on youth sport experiences. In particular, coaches have been shown to influence positive and negative outcomes in their athletes simply through their interactions with them. For example, athletes have expressed that they view their coaches as teachers, mentors, and friends (Becker, 2009). In addition, how coaches interact with their athletes can influence the amount of enjoyment an athlete experiences in sport, and whether or not they show effort, determination, motivation, and confidence (Cushion, 2010). It has become clear that supportive relationships with adults (i.e., coaches) are imperative in facilitating positive developmental outcomes in athletes (Gould, Flett, & Lauer, 2012).

Researchers have tried to better understand how coaches can cultivate a positive environment for their athletes and positively influence their personal and psychosocial development. A main way coaches have been found to exert this influence is through their
behaviours, in particular their interactive behaviours (Erickson & Gilbert, 2013). Observational research has catalogued what coaches do and has shed light on behaviours commonly displayed by coaches. Some examples include instruction, silence, observation, and praise (Cushion, 2010). In addition, questionnaire-based research regarding coaching behaviours has complimented observational research by examining how specific coaching behaviours influence outcomes in the youth involved. While previous observational and questionnaire research on coach-athlete interaction have helped to unveil what coaches do, and how their behaviours link to outcomes, attempts to understand coaches’ roles in promoting positive youth development typically focus on observable coaching behaviours (Cushion, 2010). Thus, coaches’ decision making that leads to certain behaviours have been largely overlooked. This link is vital to understanding how coaches foster positive youth development.

Decision making has been identified as an integral part of everyday coaching practice, so much so that some researchers propose that at its most basic level, coaching is a cognitive activity (Abraham, Collins, & Martindale, 2006). Indeed, decision making has been highlighted as an important aspect of coaching expertise and effectiveness, and essential to the coaching process. And yet, research conducted in this area is limited (Gilbert & Trudel, 2004). Given the pronounced influence of coaches’ interactive behaviours on their athletes’ experiences in sport, as well as the lack of research on coaches’ decision making behind coach-athlete interactions, it is logical to study the reasoning underlying coaches’ interactive behaviours. Therefore, the purpose of the present study is to explore the “why” of coach interactive behaviours and enhance our understanding of the coaching process in youth sport.
Chapter 2

Literature Review

Coaches play an important role in the sport context. An extensive body of literature has highlighted the influence that coaches have on their athletes, both in terms of skill development and psychosocial outcomes (Horn, 2008; Smith & Smoll, 2007). For example, a coach’s behaviour can greatly influence whether their athletes develop self-esteem, show determination and effort, and whether or not they enjoy their sport experience (Cushion, 2010). In other words, a coach’s behaviour will not just influence their athletes’ performances, but also their psychosocial well being. Conversely, coach behaviours have also been linked to negative developmental experiences in athletes such as poor performance, burnout, and a low sense of confidence (Amorose, 2007). Coaches exert a positive or negative influence on their athletes primarily through their interactive behaviours (Erickson & Gilbert, 2013), however little is known about the reasons and processes that underpin effective coaches’ behaviours.

Many conceptualizations of sports coaching highlight positive youth development as an integral part of effective coaching practice. For example, Côté and Gilbert (2009) defined coaching effectiveness as the “consistent application of integrated professional, intrapersonal, and interpersonal knowledge to improve athletes’ competence, confidence, connection, and character in specific coaching contexts” (p. 316). That is, an effective coach is one who looks to maximize athlete outcomes, which are defined collectively as the 4Cs: competence, confidence, connection and character. From the coaching effectiveness definition, coaches maximize athlete outcomes by displaying behaviours that are the objective demonstration of integrated professional, intrapersonal and interpersonal knowledge (i.e., “consistent application over time…”). However, how coaches incorporate these knowledge structures into their observable coaching behaviours is a process that is not well understood. Despite a vast amount of research on coaching in the last
40 years, we still have a limited understanding of the reasoning behind coach-athlete interactive behaviours that ultimately lead to the development of athletes’ positive development through sport (e.g., 4Cs). To highlight these gaps, the relevant literature on coaches’ behaviours is first reviewed, and then followed by coaches’ knowledge and decision making.

**Coach Behaviour**

Since coaches play an important role in promoting positive youth development, coaching research has continued to grow as a field of study. Indeed, research has been increasingly directed at the improvement of effective coaching practices. In 2004, Gilbert and Trudel conducted a review of the coaching literature to summarize the coaching science research published from 1970-2001. They found that out of 610 articles, studies employing questionnaires accounted for 70% of all coaching studies. Questionnaire research has allowed researchers to explore how coaches’ behaviours are linked to different types of athlete experiences in sport. For instance, prior studies using questionnaires such as the Leadership Scale for Sport (LSS; Chelladurai & Saleh, 1980), and the Coaching Behaviour Questionnaire (CBQ; Martin & Barnes, 1999) have assessed the impact of perceived coaching behaviours on various athlete outcomes. For example, studies that have utilized the LSS have explored the association between perceived and preferred leadership behaviours and athlete satisfaction. These investigations have revealed that leadership styles that are linked with behaviours such as instruction, positive feedback, and social support are associated with athletes’ motivation and satisfaction in the sport environment (Horn, 2002, Amorose & Horn, 2000). Indeed, previous work examining coach behaviours have shown that coach-athlete interactions are a fruitful avenue for research as coach interactive behaviour is related to athletes’ skill and psychosocial development (Alfermann, Lee & Würth, 2005; Erickson & Gilbert, 2013).

In explorations of the coach-athlete relationship, researchers have examined autonomy-supportive coaching behaviours and their importance in the facilitation of positive outcomes in
youth (Amorose & Horn, 2000; Gagné, Ryan & Bargman, 2003; Mageau & Vallerand, 2003). For instance, Mageau and Vallerand (2003) presented a motivational model of the coach-athlete relationship to illustrate how coaches can influence their athletes’ motivation. In doing so they outlined seven autonomy-supportive behaviours that may contribute to athletes’ experience in the sport environment. Some examples include, providing choice within certain rules and limits, providing athletes with opportunities for independent work and initiative taking, as well as providing non-controlling feedback. Much literature has shown that athletes, who perceive their coaches to be autonomy supportive, have more positive experiences in the youth sport environment. These athletes are more likely to experience increased enjoyment, motivation, concentration, and determination (Amorose & Horn, 2000; Gagné, Ryan & Bargman, 2003).

Conversely, athletes who perceive their coaches to exhibit a controlling or autocratic leadership style tend to experience positive outcomes to a lesser extent and are less satisfied with the coach-athlete relationship (Mageau & Vallerand, 2003).

While questionnaire-based research has helped to identify the impact of coaching behaviours on athlete outcomes, it is limited in that these studies have only examined perceptions of these behaviours. Indeed, studies employing questionnaires have demonstrated our continued understanding of the important role of coaches in youth sport and their impact on athlete outcomes. Yet, it is evident that questionnaire research has been dominated by subjective evaluation of de-contextualized coaching situations. Further, relying on coaching situations that are not representative of actual coaching environments fails to completely capture the complex role of coaches in a wider interactive process.

One way researchers have attempted to address this gap is through observational research. Over the past 30 years, there has been a significant increase in the amount of literature aiming to unveil what coaches do, and even more so what “good” or “effective” coaches do through observation. As such, observational research concerning coach behaviour has become a
critical area of study in the coaching literature. Observational studies conducted on coach
behaviours have contributed greatly to our knowledge of coaches and more importantly, have
described coaching behaviours in a variety of different sport contexts. For example, in the late
1970s Smith, Smoll, and Hunt (1977) developed the Coach Behaviour Assessment System
(CBAS) to create behavioural profiles for youth coaches. Studies employing the CBAS have
looked at observable coach behaviours and strategies used by coaches both in practice and
competition contexts (Smith & Smoll, 1990; Smith, Smoll & Curtis, 1978). Through a series of
studies, Smith and Smoll (1996) summarized their research by suggesting coaches who impact
their athletes positively do so by providing positive reinforcement, mistake-contingent
encouragement, as well as technical and corrective instruction. In addition, Cushion (2010)
outlined three categories of coaching behaviour that can account for over 80% of coach
behaviours they are: (1) instruction, (2) silence, (3) praise, and scold. It is clear that previous
literature has extensively examined coaching behaviours that are present in the youth sport
context, however knowing what coaches do in practices and games does not provide insight into
why they do it.

To date the majority of research conducted on coaching behaviours has focused on
documenting and analyzing perceived and observable coaching behaviours, while much less
attention has been given to the reasoning behind, or the “why” of effective coach behaviours
(Cushion, 2010). Observational and questionnaire methodologies have been valuable tools used to
catalogue coach behaviours and to link coach behaviours to athlete outcomes, however it is
limited in that it cannot unveil coaches’ reasoning that lead coaches to exhibit such behavioural
patterns. Thus, researchers must seek to explore and integrate new coaching knowledge with the
foundation of coach behaviour research that already exists. In order to examine how coaches’
decisions inform observable coaching behaviours, researchers must investigate coaches in their
natural environments, and go beyond cataloguing behaviours and connecting these behaviours with athlete outcomes.

**Coach Knowledge and Decision Making**

Côté and Gilbert (2009) identified three types of knowledge that are used by coaches: professional, interpersonal, and intrapersonal knowledge. The coaching knowledge literature highlights that a large part of coaching effectiveness and expertise resides in a coach’s ability to teach sport specific skills, which might be considered professional knowledge. Professional knowledge in the coaching literature has been defined as the “‘how-to’ version of coaching knowledge” (Côté & Gilbert, 2009, p. 310). For instance, Abraham, Collins, and Martindale (2006), highlighted that effective coaches used professional knowledge to teach skills, correct performances, and make decisions. Similarly, Côté, Salmela, Trudel, Baria, and Russell (1995) reported that expert gymnastic coaches in training and competition used professional knowledge to adapt their behaviours in the different sport settings.

However, coaching effectiveness also lies in one’s ability to create meaningful relationships (interpersonal knowledge), as well as an ability to reflect on their own performance and learn from themselves (intrapersonal knowledge). Interpersonal knowledge involves coaches and their relationships with others such as athletes, parents, assistant coaches, and referees. In the youth sport context, the coach-athlete relationship has been found to be central to an athlete’s physical and psychosocial development (Jowett & Cockerill, 2003). A coach’s effectiveness, at least in part, depends on interpersonal knowledge. On the other hand, intrapersonal knowledge relates to a coach’s ability for introspection and reflection. Gilbert and Trudel (2001) conceptualized a model that describes how coaches refine strategies and behaviours through reflection. In fact, effective coaches engaged in reflective practices to supplement their learning from practical coaching experiences.
Another avenue that has been investigated regarding coaching knowledge concerns how coaches develop these knowledge sources. That is, how do coaches acquire professional, interpersonal, and intrapersonal knowledge that is crucial to effective coaching practice? Coach education programs and formal coach training have been identified as a main pathway through which coaches develop coaching knowledge and in particular, professional knowledge (Werthner & Trudel, 2006; Wright, Trudel, & Culver, 2007). However, formal coach education sheds light on only one way coaches learn to coach. Various situations and factors such as playing experience, mentoring, and interactions with other coaches, have been shown to have an influence on coaches’ development of knowledge as well (Bloom, Durand-Bush, Schinke & Salmela 1998; Jones, Armour & Potrac, 2003).

While studies investigating coach knowledge have unveiled the types of knowledge used by coaches and how they might develop this knowledge, it does not address how this knowledge translates into coach-athlete interactive behaviour. Coaches, and especially effective coaches, are able to take their knowledge and find a meaningful way to convey that information to their athletes. However, how this process works is not well understood. From the coaching knowledge literature, we know what knowledge coaches have acquired and generally use when coaching. So while past literature in this domain has explored what coaches know, how they use their knowledge, and how this process links to coach behaviour is not clear. With that said there are a few researchers who have attempted to explore the process linking coaches’ thoughts and their subsequent athlete-directed behaviour (Debanne & Fontayne, 2009; Gilbert, Trudel, & Haughian, 1999; Lorimer & Jowett 2009a, 2009b; Smith & Cushion, 2006).

Recently, Lyle and Vergeer (2013) conducted a search on published research papers from 1990 to 2010 that explored coaches’ cognitions. They found less than 30 articles regarding coach decision-making. Most of the studies focused on coaches’ decision making in relation to strategy, organization, and specific factors or events. Only a few of these studies concerned the coach-
athlete relationship (e.g. Lorimer & Jowett 2009a, 2009b; Gilbert, Trudel & Haughian, 1999). This is surprising given that coaches can influence developmental outcomes through their interactions with their athletes. This review reinforces the need for studies investigating the reasons for coach-athlete interactive behaviour.

In an effort to address this gap in the literature, some researchers have begun to move from cataloguing coach behaviours to trying to understand the processes underpinning coach-athlete interactions (Gilbert & Trudel, 2004). Cushion (2010) highlighted that researchers are moving beyond “what coaches do” and beginning to explore “why they do it.” For example, Smith and Cushion (2006) used a mixed methods approach to investigate the coaching behaviour of professional youth soccer coaches and more specifically, the cognitive processes underlying coach behaviour. In this particular study, researchers observed coaches and used the Arizona State University Observational Instrument (ASUOI; Lacy & Darst, 1984) to code coaches’ behaviours. Coaches then participated in semi-structured interviews to provide a more holistic view of the processes behind coach behaviour. They found that coaches had a conscious pattern of behaviour. For the most part they monitored athletes silently. This monitoring was interspersed with instruction that was often paired with praise and encouragement. Results from the interviews revealed three major themes that guided coach behaviour: support and encouragement, developing an understanding for the game, and coaches’ roles and influences. In essence, this study explored both the cognitive and behavioural processes of coaches in context, thus going beyond description of coach behaviours and providing a more holistic understanding of coach behaviour. However, this study explored youth sport coach behaviours in a competition context and did not examine the reasons for coach-athlete interactions specifically.

One line of research that has attempted to examine thoughts and feelings about coach-athlete interactions is the work of Lorimer and Jowett (2009a, 2009b). Lorimer and Jowett (2009a, 2009b) investigated empathic accuracy in coach-athlete dyads in both team and
individual sports using a mixed-methods approach. Empathic accuracy is defined as “the accuracy of an individual’s moment-to-moment perception of the psychological condition of another” (Lorimer & Jowett, 2009b, p.202). Coaches and athletes participated in self-confrontation interviews. Coach-athlete dyads were videotaped during a training session. Each coach-player dyad was shown a video clip of them interacting and was asked during 80 seconds of blank footage to expand on their specific thoughts and feelings they remember having during the interaction. The coach-athlete dyad then watched the video clip a second time and wrote down what they thought their partner had thought or felt during the selected interaction. Athletes and coaches recorded the general feelings they remembered having, the specific thoughts they remembered having, as well as their opinions regarding how the training session was going up until that point. The findings of these two studies showed that the dynamics of interactions between coach and athlete(s) have a large influence on how well coaches and players can perceive each other’s thoughts and feelings. The importance of this finding is underscored by the fact that the ability of coaches and athletes to perceive and understand each others viewpoints may allow coach-athlete dyads to better identify and resolve conflict and may consequently enhance coach-athlete relationship quality (Jowett, 2007). Further, increased empathic accuracy has been linked to greater satisfaction in the coach-athlete relationship (Lorimer & Jowett, 2009b). There are several benefits to this methodological approach. First, research examining empathic accuracy has explored coach thoughts and feelings during coach-athlete interactions in context. Second, Lorimer and Jowett’s work has been valuable in highlighting the importance of the coach-athlete relationship in youth’s sport experience. Nonetheless, while these two studies examined the feelings and intentions coaches had, and their ability to predict the thoughts and feelings of their athlete during interactions, they did not explore how these thoughts and feelings translated into observable, tangible behaviours. More simply put, they examined coaches’
thoughts at a moment in time, but not the reasoning that led to the specific behaviours at that moment.

In a similar vein, Gilbert, Trudel, and Haughian (1999) examined the factors that are considered by youth ice-hockey coaches when they make interactive decisions during competition. The researchers used stimulated recall interviews to reveal that coaches rely on a number of factors such as contextual field information, coaching knowledge about their athletes, and the sport to make interactive decisions. The results also indicated that coaches typically used two or three factors to inform their interactive decisions, highlighting the complexity of coach decision making. They concluded that while player performance is an important aspect to consider when making decisions during competition, it is not the only factor. In fact, coaches use information such as player history and context to help guide their interactive decisions.

Additionally, Debane and Fontayne (2009) explored the cognitive management of an elite handball coach during a game. The coach participated in an interview prior to a stimulated recall session where the researchers asked about his overall impressions of the competition and any decisions he made that he felt were significant. From there, during the stimulated recall interview, the coach was asked to explain each of these decisions while watching the videotaped footage. The findings indicated that coaches prioritize their concerns during competition and that this process is made known primarily by the coach interacting with his team’s playmaker.

Overall, there are only a handful of studies have explored the link between reasoning and coach behaviour (e.g. Gilbert, Trudel & Haughian, 1999; Lorimer & Jowett 2009a, 2009b). What is more, the majority of studies that have investigated coach cognitions have focused on coaches’ decision making in relation to strategy, organization, or specific factors and events. In addition, most of these studies explored coaches’ decision making in the context of competition rather than practice. Thus, the reasons behind coach-athlete interactive behaviour in practice, and how coach reasoning is linked to behavior is not well known. That is, we do not have a clear understanding
of why coaches interact with their athletes and why they interact with them in a particular manner in a practice setting.

While researchers have begun to explore why coaches do the things they do, no studies have yet examined the reasoning underpinning coach-athlete interactions and coach-athlete interactive behaviour specifically. Due to the fact that coach-athlete interactions are integral to the coaching process and the development of positive outcomes in youth, a study that explores the reasoning behind coaches’ interactive behaviour is certainly warranted. The aim of the following section is to highlight relevant methodological approaches that can be used to examine coach decision making and highlight previous literature that has successfully utilized these methods.

**Methodologies in Coach Decision Making Research**

One of the most prevalent approaches to better understanding decision making is process tracing (Lyle, 2003). Process tracing includes “think aloud” protocols where information is collected during the decision making behaviour. In order to do so, participants verbalize their thoughts as they think through situations and make decisions. For example, in a study by Jones, Housner, and Kornspan (1997), coaches had to think aloud as they planned a practice. Jones et al. (1997), aimed to investigate the thoughts of experienced and inexperienced basketball coaches during a practice. Think aloud protocols have also been used to look at athlete decision-making processes. Nicholls and Polman (2008) used think aloud procedures to better understand acute stress and coping strategies used by golfers over the course of six holes. Although think aloud procedures have gained popularity, it has been argued that process tracing is not appropriate for environments in which “significant verbal communication is part of the individuals behaviour during a targeted episode” (Lyle, 2003, p. 862). In other words, think aloud protocols are not ideal to use in situations that are dynamic and where there are high levels of interactions.

One methodology that poses a solution to accessing coaches’ cognitions in context, as well as linking coach behaviour to real-time decisions, is stimulated recall. Stimulated recall
refers to a “family of introspective research procedures through which cognitive processes can be investigated by inviting subjects to recall, when prompted by a video sequence, their concurrent thinking during that event” (Lyle, 2003, p. 861). Stimulated recall methods have proven to be successful in stimulating the events that are identified as well as accruing a verbal account of the reasoning behind behaviour at that particular moment in time (Wilcox & Trudel, 1998). This method has been used in many different disciplines such as teaching, counseling, and psychiatry, as well as nursing (Lyle, 2003). In addition, video stimulated recall allows for the maintenance of the naturalistic context. This means that we can move beyond simply asking coaches what they think, feel, or know, and link it to their actual interactive behaviour in context. Even though it has been demonstrated that stimulated recall methods have great potential for studies concerning cognitive strategies, decision making, and more importantly, dynamic interactive contexts such as that found in sport; its use in the sport domain is limited.

Almost 20 years ago, Trudel, Côté, and Bernard (1996) suggested the use of stimulated recall interviews as a novel way to better understand the cognitive processes of coaches that translate to their behaviours. Since then, a handful of studies in the coaching literature have employed stimulated recall methodologies paired with interviews to investigate coach interactive decisions (i.e., Debanne & Fontayne, 2009; Gilbert, Trudel, & Haughian, 1999; Wilcox & Trudel, 1998). Through these explorations researchers have found that stimulated recall was crucial in confronting coaches with their decision making and indeed, a valid way to elicit reasons for coach interactive behaviour. Further, they emphasized the importance of using stimulated recall to better understand coaches’ decision making in the natural sport environment.

**Purpose of the Study**

The current study intends to examine the ‘why’ of coach-athlete interactions through the use of stimulated recall. This study aims to explore coaches’ decision making and reasoning in context, which are linked to interactive behaviours with their athletes. This study attempts to
address the following research questions concerning coach-athlete interactive behaviours exhibited by effective youth sport coaches: (1) Why do coaches choose to interact with their athletes? and (2) Why do coaches choose to interact with their athlete’s in a particular manner? Ultimately, the goal is to gain a better understanding of the reasons behind coach-athlete interactions in context and how coaches’ reasoning lead to behaviours that facilitate positive development of youth.
Chapter 3

Methods

Participants

Demographics. Head coaches of nine female competitive club soccer teams from eastern and southern Ontario were recruited to participate in the current study. Participants were male soccer coaches between the ages of 35-54 ($M = 47.00$, $SD = 5.89$), with an average of 13.10 years of sport specific coaching experience ($SD = 7.08$). All coaches had been with their team for a minimum of 6 months. In addition all coaches who participated in this study had an entry level coaching qualification certification or higher. The players were adolescent females between 12-18 years of age ($M = 14.54$, $SD=1.31$), with an average of 8.73 years soccer playing experience.

Coaching Effectiveness. While the athletes were not directly analyzed, team selection criteria was determined by a pre-screening process with a newly developed comprehensive tool that measures positive developmental outcomes in terms of athlete competence, confidence, connection, and character (4Cs Questionnaire; Vierimaa, Côté, Erickson & Gilbert, 2012). Each coach received a separate score out of 5 for each of the 4Cs constructs. Since there are four constructs each coach was given a composite score out of 20. All participants had a composite score of 12 or higher out of 20 indicating that each team scored at least a 3 out of 5 on each individual construct ($M= 14.41$, $SD =0.42$). This procedure confirmed that all the coaches in the current study were cultivating positive developmental experiences in their respective sport environments.

Procedure

The coaches, athletes, and the athletes’ parents were all required to provide active written consent prior to participation in the study. In addition, an email containing a brief explanation of the nature of the project was provided to all of the athletes and their respective parents prior to the
commencement of data collection. For each team involved, two training sessions were videotaped using one video camera, actively operated to capture coaching behaviours and coach-athlete interactions in detail. Each training session lasted anywhere between 1.5 to 2 hours, resulting in a total of approximately 30 hours of coaching video footage. Coaches’ verbalizations were captured with a lapel microphone. The first videotaped practice of each team served two purposes: (1) to acclimate the coaches and athletes to being videotaped and the presence of the research team and (2) to act as pilot video to ensure the equipment was working properly and that the sound settings were appropriate for the specific sport setting. The subsequent videos of each team from the remaining practice sessions were used for data analysis and were recorded during the middle to end of each team’s season within two weeks of one another.

Each video was uploaded to a computer and reviewed. A representative sample of discrete coach-athlete interactions was selected similar to the methodology used by Lorimer and Jowett (2009a; 2009b). All interactions that occurred between the coach and (a) an individual athlete, (b) a small group of athletes, and (c) the entire team were first identified and grouped separately. Coach-athlete interactions included in the study had to meet certain criteria. Coach athlete interactions were identified where a single topic was discussed. Interactions were rejected if sound quality was poor enough to make dialogue unclear, or if the interaction did not last more than five seconds. There were between 41 to 122 coach-athlete interaction clips from which to choose from per practice. Interactions were randomly selected from each of the three groups (with an upper limit of five per group) to ensure maximum variation in the representative sample of 15 coach-athlete interactive clips across the training session. The selected clips were then compiled into one continuous film using iMovie’11®, each clip was separated by blank footage. Cutting and compiling the film during this stage of the data collection took between eight to ten hours per coach, culminating in approximately 85 hours of video editing.
To increase the validity of participant responses, coaches then participated in a stimulated recall interview (Wilcox & Trudel, 1998) where they reflected on the videotaped footage of their interactions with their athletes. Stimulated recall interviews took place within 48 hours of the teams’ last videotaped session and occurred before the teams’ next practice session or competition. Interviews lasted 75 minutes on average. Over the course of each interview, the tape was stopped during the blank footage and coaches were asked to expand on the intentions and reasoning behind the selected interaction and explain the dynamics of the interaction (see Appendix A for interview guide). Coaches were able to stop and replay the interaction clip whenever needed.

The questions included in the interview guide were designed to elicit knowledge used by coaches when interacting with their athletes to gain a better understanding of their reasoning behind their interactive behaviours. Five different kinds of questions were asked (Patton, 2002): (1) experience and behaviour questions, (2) opinion and values questions, (3) feeling questions, (4) knowledge questions, and (5) sensory questions.

Data Analysis

Each interview was audio taped and subsequently transcribed verbatim. The primary researcher verified all of the transcripts by playing the audiotape of the interview in its entirety, while following along with the transcript. This helped to remove any spelling errors or errors in transcription, as well as further familiarizing the primary researcher with the data. Any personal or identifying information was removed from the transcripts to maintain participant confidentiality. The interviews transcribed verbatim resulted in 681 pages of double spaced text. The transcripts were then inductively coded. A content analysis methodology was used to code the interview data implementing initial, focused, and theoretical codes (Charmaz, 2006). Line by line coding was the first step in coding and was useful in identifying rough categories, and familiarizing the primary researcher with the transcripts. For the initial codes, each transcript was
fragmented into segments that represented singular thoughts or themes; otherwise referred to as meaning units. Following initial coding, focused coding was used to categorize initial codes into common groups that allowed for the explanation of larger segments of the interview data. This step enabled the primary researcher to progressively ameliorate categories as well as to identify codes that relate with multiple participants. At this stage, the meaning units were condensed into categories, which in turn, were analyzed for content. Lastly, theoretical coding was used to help understand how focused codes are related. In other words, theoretical coding identified potential interactions between segments of data. Analyzing the content of the focused codes generated over-arching themes.

**Credibility**

To ensure trustworthiness in the current study, member checks were used to maintain validity of the data (Lincoln & Guba, 1985) at two different time points. At the end of each interview, participants had the opportunity to amend any comments that they wished to. Moreover, all participants received a copy of the full verbatim transcript and had the freedom to clarify, remove, or add any comments they made during the stimulated recall interviews. In addition, each transcript was verified by comparing it to the audiotape of the interview to ensure accuracy of the transcription.

A peer review process was put in place to ensure trustworthiness. Two experts familiar with the sports coaching literature, as well as a research assistant unfamiliar with the sports coaching literature were consulted and provided feedback on emerging codes and findings during data analysis. In all, these steps increased the credibility and validity of the resultant data.
Chapter 4

Results

The analysis of the stimulated recall interviews resulted in over 500 meaning units. Two main, overarching themes emerged from the analysis as distinct sequential elements of coaches’ decision making: (1) choosing to interact and (2) choosing the type of interaction. A third emerging theme, very preliminary in nature, was coaching philosophies. The first overarching theme, choosing to interact, represented the reasons for why a coach chose to interact with their athlete(s). This theme was composed of four categories: (1) connection to a larger picture, (2) teachable moments, (3) standards of behaviour, and (4) organization (See Table 1). The second overarching theme, choosing the type of interaction, encompassed the reasons for why a coach chose to interact with an athlete or group of athletes in a particular manner. This theme was composed of two categories: (1) athlete influences and (2) communication strategies, and four sub-categories: (1) knowledge of the athlete(s), (2) degree of athlete input, (3) degree of tolerance, and (4) team unit involved (See Table 1). Last, coaching philosophies referred to coaches’ expectancies, beliefs, values, and goals that guide their moment-to-moment decision making processes. The theme coaching philosophies was found to permeate both the reason behind and manner of coach-athlete interactions and provided a backdrop upon which coach-athlete interactions occurred.

The codes that emerged from each of these categories allowed for the conceptualization of a model that illustrates coaches’ reasoning behind coach-athlete interactions. As such, the findings of the current study will be detailed in three parts. Part One details the model derived from the data and briefly illustrates the process of coaches’ thoughts underpinning coach-athlete interactions. Part Two describes the three themes beginning with why coaches chose to interact, followed by choosing a type of interaction, and finishing with coaches’ philosophies. This
section will provide a detailed description of each of the categories of the process. Part Three gives an example of the process in context. More specifically, an example from the data will be used to illustrate how the model works to explain the reasoning behind coach-athlete interactive behaviour. This order was chosen to allow for easier interpretation of the codes and to highlight the process nature of the data. All information concerning identifying information contained in participants’ quotes was removed. As well, the names of people and places were replaced with pseudonyms.

**Part One: Building the Model**

The data derived from coach interviews allowed us to conceptualize a model that describes and illustrates coaches’ moment to moment decision making during coach-athlete interactions (see Figure 1). More importantly, this model exemplifies the decisions that lead to observable coach-athlete interactive behaviours. The following section will first provide a description of the interaction model.

To begin, when coaches interacted with athletes, their decision making was two-fold: first they decided to interact, (See Fig 1, Box 1) and second, they decided the way in which they should interact with their athlete(s) based on a number of factors (See Fig 1, Box 2). Before coaches chose to interact, something a coach heard, saw, or knew provided the impetus for the coach-athlete interaction. Coaches described that they would interact with their athletes for four reasons: (1) connect athletes to a larger picture, (2) teachable moments, (3) standards of behaviour, and (4) organization. Coaches used a combination of these options to explain why they chose to interact. In more simple terms, coaches did not consider each category every time they chose to interact. Rather, depending on the situation, and what they saw, heard, or knew, coaches chose to interact for one specific reason, or for a combination of reasons. The arrow inside Box 1 (Figure 1) represents the interactive nature of the reasons used by coaches to
Table 1. Results displayed as categories and themes for why coaches interact with their athletes and why coaches interact with their athletes in a particular manner.

<table>
<thead>
<tr>
<th>Choosing to Interact</th>
<th>Choosing the Type of Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection to a Larger Picture (46)</strong></td>
<td><strong>Athlete Influences (116)</strong></td>
</tr>
<tr>
<td>Real Game Situation</td>
<td>• Knowledge of the Athlete(s) (116)</td>
</tr>
<tr>
<td>Link to a Goal</td>
<td>Life Outside of Soccer and Athlete Goals</td>
</tr>
<tr>
<td>Training Program</td>
<td>Characteristics of Athlete(s)</td>
</tr>
<tr>
<td>Legacy of Success</td>
<td>e.g. Personality, Confidence, Competence</td>
</tr>
<tr>
<td>Impart Philosophy</td>
<td>Demographics</td>
</tr>
<tr>
<td></td>
<td>e.g. Age, Gender, Position</td>
</tr>
<tr>
<td><strong>Teachable Moments (71)</strong></td>
<td><strong>Communication Strategies (97)</strong></td>
</tr>
<tr>
<td>Sport Skill and Performance Based</td>
<td>• Degree of Athlete Input (48)</td>
</tr>
<tr>
<td>e.g. Technical or Tactical Error, Fix Habits</td>
<td>Relatively More</td>
</tr>
<tr>
<td>Highlight Success</td>
<td>e.g. Teaching a new drill</td>
</tr>
<tr>
<td>Life Lessons</td>
<td>Relatively Less</td>
</tr>
<tr>
<td></td>
<td>e.g. Organizing a drill</td>
</tr>
<tr>
<td><strong>Standards of Behaviour (47)</strong></td>
<td>• Degree of Tolerance (36)</td>
</tr>
<tr>
<td>Setting Standards</td>
<td>Relatively More</td>
</tr>
<tr>
<td>e.g. explain expectations</td>
<td>e.g. Learning a new skill</td>
</tr>
<tr>
<td>Responding to Deviations</td>
<td>Relatively Less</td>
</tr>
<tr>
<td>e.g. Focus/Attention, Effort, Intensity</td>
<td>e.g. Recurring problems, Not meeting standards</td>
</tr>
<tr>
<td><strong>Organization (16)</strong></td>
<td>• Team Unit Involved (13)</td>
</tr>
<tr>
<td>Part of Routine</td>
<td>Individual</td>
</tr>
<tr>
<td>Drill Set-up</td>
<td>Team</td>
</tr>
<tr>
<td>Breakdown in Drill</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Numbers in parentheses represents the number of corresponding meaning units.*
Moment to Moment Coach-Athlete Interaction

**BOX 1**
Choosing to Interact
- Connection to a Larger Picture
- Teachable Moments
- Standards of Behaviour
- Organization

**BOX 2**
Choosing Type of Interaction
- **Athlete Influences**
  - Knowledge of the Athlete(s)
- **Communication Strategies**
  - Degree of Athlete Input
  - Degree of Tolerance
  - Team Unit involved

**BOX 3**
Coaching Philosophies

**Figure 1.** Coaches’ reasoning for coach-athlete interactive behaviour.
describe why coaches choose to interact and the different ways in which they are integrated.

Once a coach chose to interact with an athlete, they then had to determine the manner in which they would approach the situation. Again, a number of factors were found to inform how coaches interacted with their athletes, they were: (1) athlete influences, which included knowledge of the athlete(s), and (2) communication strategies which included degree of athlete input, degree of tolerance, and the team unit involved. At times, coaches chose one of these options, while at other times, they used a variety of combinations to inform their coach-athlete interactive behaviour. Knowledge of the athletes was separated from communication strategies in Box 2 because it seemed that this particular category informed how much athlete input a coach desires, the amount of tolerance that they have for athlete behaviour, as well as the team unit involved. To clarify, there were situations where knowledge of the athlete(s) informed what communication strategies coaches used. Knowledge of the athlete(s) appeared to operate on a higher level than the other three sub-categories and was grouped separately.

Together, choosing to interact and choosing the type of interaction described the decision making process used by coaches when interacting with their athletes. This reasoning then lead to observable coach-athlete interactive behaviours (i.e., the interactions captured in the video clips and used in the stimulated recall interview). Although this is by no means a comprehensive list (and was not the focus of this study), some examples included, yelling, giving instruction, asking questions, comforting, or praising.

Last, we found that coaching philosophy had an effect on both why coaches chose to interact, and the type of interaction coaches chose. For instance, a coach with a coaching philosophy that is centered on positive psychosocial development may pick out more teachable moments that pertain to life lessons than a coach simply concerned with winning and sport skill development. This is an example where coaching philosophy could affect why coaches interact.
It appears that coaching philosophy exists as a context that guides coach decisions and behaviours.

**Part Two: Themes and Categories**

This section will provide an in depth description and examples of each category that emerged from data analysis. In addition, this section will be organized according to the three overarching themes, beginning with why coaches choose to interact, followed by choosing a type of interaction, and finishing with coaches’ philosophies.

**Choosing to Interact**

This theme encompassed the reasons why a coach stopped the momentum of a practice to intervene with an athlete or group of athletes. Four general reasons to intervene emerged from the data: (1) connection to a larger picture, (2) teachable moments, (3) standards of behaviour, and (4) organization (See Fig. 1, Box 1).

**Connection to the Larger Picture.** All coaches described that they chose to interact with their athletes to connect them to a larger picture. Connecting to a larger picture concerns instances where coaches stopped a practice to link their athletes to something bigger than just what athletes were doing in practice. Connecting to a larger picture involved a number of different points, such as connecting athletes to a larger goal, training program, legacy of success, philosophy, or real game situation.

For example, all nine coaches reported stopping practice to relate what the athletes were doing in practice to a real game situation. Many coaches mentioned that they stopped a practice in order to provide meaning to the drill or skill the athletes were learning so that they could see where it had value during a real game. This allowed athletes to see that the skills they were learning had practical implications for games and performance outcomes. When describing why he chose to interact with his team, Participant 2 explained:
You need to make the connection to the game, why is that important in the game situation that’s what I find, so I find that to be very successful for me.

Coaches explained that situating athletes within a real game situation, a larger goal, a training program, a tradition of success, or philosophy allowed athletes to understand the meaning of a drill in practice.

**Teachable Moments.** Participants also emphasized that they often chose to interact with their athletes because they saw the opportunity for a teachable moment. A teachable moment referred to a moment where teaching the athletes became possible or easiest and as a result, coaches chose to interact with their athletes at these times. More specifically, teachable moments concerned both sport skill and performance based situations, as well as opportunities to teach life lessons.

For instance, most of the time coaches chose to interact with their athletes, they did so because they saw a tactical or technical error being made during the drill or scrimmage. All coaches detailed that they would stop the practice to both acknowledge the mistake, and help to correct it. They also did this when they saw an athlete or group of athletes engaging in bad habits. An example of this would be looking at the ball while dribbling, or using the wrong part of the foot while striking the ball. While coaches pointed out mistakes made by their athletes, they also highlighted athlete successes as well. When commenting on why he stopped the practice to interact, Participant 1 explained:

Well Darcy’s a winger and for a while there she was defending wide and when you attack wide, you defend inside. And she would never come inside. We just played on Monday against a team and she kept coming in without me really telling her, so maybe she’s starting to finally listen and so, she did exactly, what she did in the previous game, which is help the team, and made her more successful as a player. She did her job perfectly and no one would’ve really noticed. It was, it was seeing the game being smart um, and willing to work because she definitely could’ve stayed where she was yet she made a great play that most coaches or players
would never notice or reward. To me it was the best individual play in practice and it was small.

Teachable moments that involved life lessons did not concern sport skills directly, but rather concerned lessons or skills that are applicable to the athletes’ lives outside of sport as well.

Participant 5 interacted with an athlete who had been beat three times in a row during a 1v1 drill.

When asked about the interaction he explained:

> You know like it’s the same thing in life like you get knocked down you’re just going to cry the entire time or are you going to get back up and you’re going to fight through it so yeah that that was the situation um so it led me to interact.

In these instances, coaches did not formally set up activities to teach the athletes life skills or life lessons but rather, found opportunities within the natural sport setting as a means to convey messages that happened to relate to other aspects of the athletes lives.

**Standards of Behaviour.** Another recurring reason for coaches to interact with their athletes was due to standards of behaviour expected of both the coach and the athletes. Standards of behaviour involved a number of codes that can be divided into two all encompassing categories: (1) setting standards of behaviour and (2) responding to deviations in standards of behaviour. More specifically, setting standards of behaviour involves coaches and athletes explaining their expectations of each other and having conversation about how they expect each other to behave. Conversely, responding to deviations in standards of behaviours is characterized by times when coaches interact with their athletes because they see an athlete or group of athletes acting in a way that they would not expect or in a manner that is not in line with the standards of behaviour previously set. It is important to note that deviations in standards of behaviour include both positive and negative deviations.

For instance, a coach that demands that his players work hard, may engage an athlete that may seem more lazy than usual. At the same time, a coach may see an athlete giving more effort
than usual, and will approach them to better understand why they are seeing a change in that particular athlete. For example, Participant 6 stopped his practice to interact with his team because he felt that they weren’t giving as much effort as he would expect, he explained:

Yeah again they got lazy and they decided, oh ‘I made my pass now I can just walk into the next square because I am not going to have do anything useful for another 20 seconds’

It is important to note that when coaches interacted with their athletes with regards to standards of behaviour, they did so because they saw or heard a behaviour that they would not typically expect or demand of their players.

**Organization.** The last reason coaches chose to interact with their players was due to organization of the practice or drills. Coaches interacted with their athletes during practice when it was part of their routine, if they were setting up drills, or when there was a breakdown in the organization of the drill. For example, Participant 2 noticed that during a drill, the passing lines had become uneven so much so that it interfered with the athletes’ ability to properly engage in the drill. He explained:

You know the organization was obviously off so I may have explained it once but needed to explain it a couple more times and again its, its something you, sometimes you think, you take things for granted right. As the coach you know what the setups going to be and you think they’re just going to follow that sequence, they’re going to go from that spot to that spot

In this case, Participant 2 intervened to fix the organization of the drill and to reiterate what players should be doing and where they should be going.

**Choosing the Type of Interaction**

This theme encompasses how a coach interacts with their athletes. That is, why coaches interact with their athletes in a certain way. Two general reasons were found to explain why coaches interact in a particular manner: (1) athlete influences, and (2) communication strategies.
These two categories included one and three sub-categories, respectively. The sub-categories are described herein (See Figure 1, Box 2).

**Athlete Influences**

**Knowledge of the Athlete(s).** All of the participants described how important it was to know the athletes they are dealing with in order to interact with them effectively. In fact, all of the coaches described how they often used their knowledge of their athletes to determine how they should interact with them. This category included a variety of knowledge about athletes that coaches used to interact in an effective manner, such as: knowledge about how their athletes can be best motivated, how they learn best, their aspirations, their life outside of soccer, personality, confidence, competence, age, gender, position, and relation to the coach.

As an example, all of the coaches in the present study described that the personality of their athletes affects how they interact. Most commonly, they talked about athletes who were able to take criticisms and those with whom they felt they had to be softer. Coaches detailed how they chose to interact with different tones, and use certain kinds of messaging depending on the personality of the athlete. Participant 6 explained that he could criticize and be firmer with

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Certain players, others will turtle and shell so and I’d be, I am careful who I do that with. I’ve probably got three girls that’ll shell on this team if we yell at them, it shuts them off, and they’re gone and I can’t get them back that practice or that game. So I have to be selective with who I do it on. You have to and here’s a group of eighteen …in a group of eighteen players, you have to know everyone’s personality…I have the time and I care enough I guess to cater to each one of them.
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All coaches explained that there had to be an element of personalization when interacting with their athletes and that it is important to pay attention to the characteristics of their athletes to help guide their interactions. Collectively, coaches alluded to this as one of the most important reasons in determining the manner in which to interact with athletes and ultimately, maximizing their athletes’ potential.
Communication Strategies

**Degree of Athlete Input.** It was apparent from all of the interviews that the degree of input was a crucial consideration and influenced the way coaches approached their athletes. Degree of athlete input refers to the amount of feedback or contribution coaches desired athletes to have during an interaction. For example, coaches who wanted relatively little athlete input interacted differently compared to when they wanted relatively more athlete input. When coaches wanted athlete input, they often used questions. Coaches also used questions to ensure that their athletes understood when they made an error or where they could improve their play. While describing why he posed a question to one of his athletes Participant 1 explained:

> Well if she had scored off her foot, I would’ve, probably have said great goal or I said great goal how else could you’ve scored it and she would’ve said I could’ve headed it. But she didn’t score, so I’m making sure she knows what she could’ve done

All the coaches in the current study described that as a coach, it is important to allow for athlete input. In doing so, coaches reported that they allowed athletes to engage in independent thought and that players become more flexible in their thinking, making them better equipped to overcome challenges they may face during a game. At the same time, they also highlighted that there are times where athlete input was not needed or welcomed. For instance, if a coach wanted an athlete to help pick up the cones in between drills, he would direct his athletes to do so and in turn, require very little athlete input. Regardless, whether coaches wanted relatively more or relatively less athlete input affected how they interacted with their athletes and the manner in which they did so.

**Degree of Tolerance.** Coaches also described their level of tolerance as a factor contributing to how they interacted with their athletes. Degree of tolerance refers to the amount of patience a coach had for athlete behaviours in a specific situation. During instances where coaches had more tolerance for their athletes, they interacted differently than when they did not.
One of the most prevalent examples where coaches had relatively more tolerance for athletes was when they were teaching or explaining a new drill or skill. Participant 2 spoke about why he interacted with his athletes in a particular way while explaining how to defend in game situation:

No yeah it tends to be more positive. I mean I’ll pick out the errors and I’ll stop them and I’ll say to them hey that’s not good enough but it’s not harsh right because they’re just training, they’re learning right. So you want them to make mistakes and not be fearful of making mistakes

Coaches explained that their tolerance of athlete behaviour is also based on what they would expect of their athletes. For example, when athletes are learning something new, coaches did not expect them to be successful right away, they anticipated that it would take them some time to understand or master the skill or drill they are learning. Alternatively, in situations where coaches were correcting recurring problems with the team or an athlete, coaches were much less tolerant of behaviour. As a result, coaches interacted with their athletes differently. In these instances, eight out of nine coaches described that they are much less patient when players do not act or perform in accordance with prosocial behaviours that a coach would expect of them.

Depending on how much tolerance a coach had for athlete behaviour changed the way in which they interacted with them (e.g. tone, wording etc.). In brief, depending on whether coaches have relatively less or relatively more tolerance for their athletes, appears to play a part in shaping coach-athlete interactive behaviour.

Team Unit Involved. The last factor described that shaped the manner in which coaches interacted with their athletes was the team unit involved. Team unit refers to whom the interaction is relevant. Thus, whether an interaction concerned an individual or the team, affected the way coaches interacted with their athletes.

For instance, an athlete may have made a mistake that concerned only them, while another may have made a mistake that concerns the entire team. As a result, coaches may choose to interact differently. Participant 1 explained this while describing why he chose to highlight a
players mistake in front of the whole team, while addressing another athlete’s mistake quietly off to the side of play:

Yeah but that was the one on one kind of, whereas Meghan’s point was for the team to hear it…Because Hayley’s play was just her, it was just her whereas Meghan’s play affected the whole team in a way…Right, whereas Hayley’s was just her

It is important to note that in both cases an individual athlete made a mistake during a drill. However, how the coach chose to interact with that athlete depended on the team unit the mistake had concerned and was relevant to. Four out of nine coaches specifically stated that if they felt an individual’s mistake or success was relevant to the team, then they were much more likely to stop practice and provide an opportunity for the entire team to learn from it.

**Coaching Philosophies**

Finally, an interesting code that emerged from the data was coaches’ philosophy. Coaching philosophy referred to coaches’ beliefs, and values. Coaches could not explain why they choose to interact with their athletes and the type of interaction without discussing their coaching philosophy. For instance, when describing why he chose to interact in a particular manner, Participant 1 explained:

I've got to stay true to my coaching philosophy right but I've got to able to adjust the delivery right based on the athletes, based on you know their performance, based on their talent level or what not

In addition, coaching philosophies influenced the reasons why coaches intervened to interact with athletes and for what purposes. While this category is very preliminary in nature, coaching philosophy seems to permeate both why coaches decide to interact with their athletes and the manner in which they do so (See Figure 1, Box 3).
Part Three: Example in Context

One fluid example from the data will be used to exemplify how the model works in context and is described herein. During a practice focused on offensive movement, Participant 6 noticed one of his forward players was consistently out of position. He explained that he chose to interact with his athlete because he saw an opportunity for a teachable moment:

Um in a forward position so, here I had a chance to go and show her why she constantly gets into offside positions because she is taking the wrong route so I am trying to get her to pull back out and do some other curl around plays

Once he decided to interact, he then had to choose the way in which he would approach the situation. This was based on a few factors. In this case, he explained that he interacted in a harsher manner because it had been a recurring problem. A recurring problem implies knowledge of the athlete. In order to recognize a recurring error, the coach must have some previous knowledge of the athlete making the same mistake, supporting the distinction between knowledge of the athlete and communication strategies. In terms of the model, the manner in which he interacted was informed by knowledge of the athlete and further guided by his little tolerance for the athlete behaviour and the team unit involved. He explained:

Yeah when I get a little bit more animated about correcting something it’s because it’s been something I’ve talked to them about half time and after games and seen in games and I’ve seen a chronic problem of our team doing it. And here I had a chance to capture it in practice and and totally stop everything and try to get it fixed right there in practice. That’s probably where you are seeing me jump or have a shorter fuse on certain coaching points as opposed to others where I realize that they don’t know and they’ve not been taught that, that’s different. I will approach that one differently…They just don’t know. So I have to teach that, approach that much calmer. But when it’s something that we’ve talked about, talked about, talked about and they’re still doing it then I will get, far more um animated about it.
As a result of his reasoning, he reacted in a harsher manner because he had very little tolerance for the athlete behaviour he saw. He clarified this by comparing his reaction in the current situation to another situation that he would approach in a calmer manner. In addition, he chose to intervene with the team as a whole because he viewed it as a team-wide problem. In all, Participant 6 saw something that led him to interact with his athletes, he then chose to interact in a particular manner, and these decisions manifested as observable coach behaviours.
Chapter 5

Discussion

The purpose of this project was to conduct an exploratory study to better understand the reasoning behind coach-athlete interactions in the youth sport context. The results of the current study revealed that coach decision making is two fold when interacting with their athletes. First, they decide to interact with an athlete or group of athletes (i.e., choosing to interact), and second, they choose to interact with their athletes in a particular way (i.e., choosing the type of interaction). These two successive decisions are each influenced by coaches’ overall coaching philosophy.

The results of the present study were summarized into eight categories that fell under two overarching themes that describe the sequential, practical decision made by coaches. They are: (1) choosing to interact and (2) choosing the type of interaction. Both of which were found to be influenced by a third preliminary theme, coaching philosophies. The following will discuss the content of the three overarching teams and their respective categories. This section will link results to scientific literature that can provide further explanation to coaches’ reasoning, leading to effective coach-athlete interactions.

Choosing to Interact

Before a coach interacted with an athlete or group of athletes, they had to see, hear, or know something that provided the impetus for them to take action and engage their athletes. In the observational coaching literature, silence and observation have been identified as two of the most frequently reported behaviours exhibited by coaches. Silence can account for up to 40% of coaching behaviours observed in practice and competition (Smith & Cushion, 2006). In addition, engaging in observation has become increasingly recognized as a deliberate coaching strategy
rather than a passive behaviour as was initially thought (Potrac, Jones, & Cushion, 2007). It has also been suggested that observation and silence are an important part of the coaching process that allows coaches time to analyze appropriate interactions and to reflect on their actions (Cushion & Jones, 2001). This is an important point because it implies that coaches have to think about what they are observing and subsequently, make a decision to actively engage an athlete or group of athletes. For example, it would be unrealistic for coaches to interact with their athletes every time they see an athlete make a mistake. Instead, coaches have to make a decision on when it is appropriate and necessary to intervene. An interesting avenue for future research might be to examine coaches reasoning in instances where coaches chose not to intervene and rather, chose to remain silent. In the current study, coaches outlined four major reasons that warranted interaction, they are discussed herein.

**Connection to a Larger Picture.** It was apparent from the results that coaches chose to interact with their athletes to connect them to a larger picture. Through connecting athletes to a larger picture, coaches provided athletes with a vision that allowed athletes to link what they were doing in practice to a greater purpose. This is a very similar idea to Desjardins (1996) concept of creating a vision. Desjardins (1996) found that expert coaches would create a vision for their team that would include both short and long-term goals such as program growth and development. A vision is not just something that the coach and athletes strive for, but it creates meaning for what they’re doing. Vallee and Bloom (2005) found that for expert coaches, vision involved coaches’ goals and direction for their program, as well as a means to introduce and impart coaching philosophies to their athletes. In conjunction with these previous studies, the current findings emphasize that linking athletes to a ‘vision’ bigger than the drills they are doing in practice is something that effective coaches try to accomplish through their interactions with their athletes in practice. As a result, the importance of communicating a vision through coach-athlete interaction, and regularly reminding athletes of this vision, might explain why so many of the coaches in the
current study often thought about the ‘bigger picture’ and intervened for this exact reason. The findings of the current study suggest that connecting athletes to something bigger than just the skill they are learning in practice may have an important impact on the quality of youth’s experiences in sport.

**Teachable Moments.** The most frequently cited reason for choosing to interact with the athletes was that coaches saw an opportunity for a teachable moment. In the current study, coaches intervened when they wanted to correct a performance based error, highlight a success, or when they wanted to teach life lessons.

One of the most ubiquitous goals of sports coaching is to improve sport competence in athletes. Coaches try to improve sport ability in their athletes and a large part of improving sport ability requires coaches to pick out technical and tactical mistakes and correct them accordingly. This is in line with previous observational research that has highlighted that instruction is a crucial part of effective coaching practice (Cushion & Jones, 2001; Potrac, Jones, & Cushion, 2007). In fact, numerous researchers have emphasized that instruction is the most frequently exhibited coaching behaviour (Cushion, 2010; Erickson & Gilbert, 2013). The ability to evaluate skill while the athletes are performing allows coaches to pick out technical and tactical errors and identify athlete successes as well. Part of being an effective coach involves developing the knowledge and perceptual capabilities to help their athletes develop sport skills and intervene appropriately. In fact, when coaches were asked what knowledge they need to have in order to be effective coaches, sport-specific knowledge was the first stated required knowledge source (Abraham, Collins & Martindale, 2006). Côté and Gilbert (2009) have referred to this sport specific knowledge as professional knowledge. Coaches in the present investigation used their professional knowledge not only as a means to correct techniques and decision making errors made by athletes, but to inform when they should interact with their athletes as well.
However, a truly effective coach takes a holistic approach to athlete development and aims to develop more than just sport skill. One way coaches accomplish this is through life lessons and life skill development. In a study by Camiré, Trudel, and Forneris (2012), high school coaches described that identifying and taking advantage of teachable moments was one way to teach athletes life lessons and transferable life skills. The coaches in the current study were not involved in a sport program designed to teach life skills specifically, however coaches identified moments during practice to teach life lessons in much the same way. This finding suggests that effective coaches look for opportunities to develop their athletes beyond their performance on the field.

In a review of literature, Gould and Carson (2008) stated that one weakness of the life skill development literature in sport is that sport participation has been viewed as a single entity. Programs specifically engineered to teach transferrable life skills, such as the First Tee golf program (Weiss, Stuntz, Bhalla, Bolter, & Price, 2013), are distinctly different from a ‘traditional’ youth sport environment (i.e. a sport environment not specifically aimed at life skill development). It is clear that coaches in the present study, working in a ‘traditional’ sport environment, looked for opportunities to teach life lessons and to develop life skills in their athletes. Since there is limited research on life skill development in sport, we do not have a good picture of what life skill development looks like in these different settings. Nonetheless, it was a priority for coaches in this study to teach players life lessons through sport when an opportunity occurred.

**Standards of Behaviour.** Another reason reported by coaches for interacting with their athletes was related to deviations from standards of behaviour as well as setting standards of behaviour. Coaches interacted with their athletes because they witnessed an athlete behaviour that was not in line with what they would normally expect of an individual or group of athletes. One explanation for this finding may be due to the fact that the “atypical gets attention.”
Schempp and McCullick (2010) have outlined that expert coaches develop an ability to recognize and tend to the atypical. As an example, when observing an expert coach in practice, it is not uncommon to see a person that is quietly watching the practice. What causes an expert coach to respond is when she/he detects an anomaly; in other words something atypical has occurred. Coaches in the current study were found to interact with their athletes when they saw an atypical behaviour. In other words, they interacted with their athletes when they saw or heard an athlete behaviour that they did not typically expect. This finding supports research from the teaching (education) literature that found that expert teachers processed unfolding events as either typical or atypical (Carter, Cushing, Sabers, Stein & Berliner, 1988). When events were recognized as atypical, expert teachers worked to understand why there were anomalies, and then subsequently took appropriate action.

In addition, coaches were found to interact with athletes to set behavioral guidelines and expectations. Interestingly, the standards of behaviour that coaches discussed with their athletes related to attitudes and attributes that players could control including their levels of effort, laziness, focus, and competitiveness. Coaches did not appear to base their expectations of behaviour on performance ability or something that was outside of an athlete’s locus of control. For example, all of the athletes could arguably control whether or not they put forth the necessary effort, focused during practice, or played with intensity. This is in contrast to teachable moments, which related to elements athletes didn’t already know or could not yet totally control (i.e., new skills). One could infer from this finding that effective coaches may set clear standards of behaviour to communicate their own values, as well, build character in their athletes by choosing to interact with their athletes in these instances. Perhaps a less effective coach may not have the expertise to establish standards of behaviour and as a result, prioritize other areas unknowingly.
**Organization.** The last reason detailed by coaches to describe why they chose to intervene was due to organization. There is little doubt that organization and planning is a main feature of coaching practice. That is, a large part of what coaches do, involves organizing a team of athletes. Coaches plan practices and set up drills to help facilitate athlete learning. Consequently, coaches need to explain the organization of a drill in order for athletes to understand what to do and how to do it (Franks, Hodges & Moore, 2001). It is only logical that coaches interact with their athletes regularly for organizational purposes. This sentiment has been echoed in previous observational work by Turnnidge, Côté, Hollenstein, and Deakin (2013). Through an investigation of an effective youth swimming coach, organization was reported as the second most commonly employed coach behaviour during practice time.

Interestingly, interactions that occurred for organizational purposes provided athletes with the opportunity to become engaged in the practice session. Turnnidge et al. (2013) found that in a successful swimming program, organizational based interactions gave athletes opportunities to discuss technical matters and to ask questions to clarify instructions. The present study provides evidence that organization is an integral part of the coaching process, and a main reason for coach-athlete interactive behaviour. Given these findings, it may be argued that organizational interactions may provide a means to engage athletes and encourage communication between coaches and athletes in practice.

**Choosing the Type of Interaction**

After coaches made the decision to interact with their athletes, they then made a decision regarding the manner in which they would interact with an athlete or group of athletes. This is an important stage in a coach’s decision making process because the coach’s resultant behaviour from this process has been shown to have implications for youths experience in sport. For instance, recent work by Erickson (2013) detailed that the manner in which youth volleyball
coaches interacted with their athletes, and the tone that they used, impacted athlete outcomes significantly. Moreover, in an exploration of athletes’ experiences of great coaches, Becker (2009) found that it did not matter so much what coaches did but rather, how they did it. Athletes spoke about how their coaches interacted with them effectively through clear, consistent, appropriate, and positive communication. This finding highlights the importance of information that coaches attend to when deciding how to interact. Ultimately, the information and knowledge they draw upon will aid coaches in determining what type of interaction will result in clear, appropriate, and positive interactions. In the current study, coaches reported four main reasons that shaped the way in which they interacted with their athletes, they are discussed herein.

**Knowledge of the Athlete(s).** The most commonly reported reason for why coaches chose to interact in a particular manner was due to their knowledge of the athlete. Specifically, coaches incorporated their knowledge of their athletes to personalize and individualize their coach-athlete interactive behaviour. Becker (2013) emphasized individualized consideration as a quality coach behaviour that can enhance the impact of coaching behaviours on athletes’ development and performance. It has been detailed in team sports that coaches are faced with the challenge of uniting a team made up of many different individuals. For instance, athletes may possess different personalities, characteristics, goals, needs, motivations, and commitment levels. As a result, coach behaviours have been found to be most effective when they are tailored to each individual and accommodate individual needs (Becker, 2013; 2009; Gould, Dieffenbach, & Moffet, 2002). The findings regarding knowledge of the athlete(s) support this claim as all coaches spoke to the importance of personalized and individualized considerations when interacting with athletes to maximize their effectiveness through coach-athlete interactions. These findings also compliment work from observational research. In fact, individualized positive reinforcement was a main factor found to discern a successful coach, from a relatively less successful coach (Erickson, Côté, Hollenstein, & Deakin, 2011). Interpreting coaches’ use of
knowledge of their athlete(s) in light of this research, one might infer that getting to know athletes on a personal level may be one of the largest influences guiding effective coach-athlete interactive behaviours.

**Degree of Athlete Input.** Coaches also described that the amount of athlete input they desired during an interaction shaped the manner in which they interacted with their athletes. Coaches described different situations in which they welcomed athlete input and others where they did not. For example, when coaches wanted to facilitate athlete input they often asked questions to help athletes discover solutions on their own or to ensure their understanding of a concept. Coaches in the current study used athlete input as a means to facilitate understanding, and to create independent players who could think and adapt on their own. Traditionally, coaching has been viewed as a unidirectional translation of knowledge from coach to athlete, with the athlete having a passive role in the learning process (Cushion, 2010; Potrac & Cassidy, 2006). However, Potrac and Cassidy (2006) have argued that in order to develop athletes who can perform without being under the direct control of the coach, coaches need to provide an environment that is autonomy-supportive as well. Autonomy-supportive environments have been shown to support choice and choice initiation, as well as understanding (Ryan & Deci, 2000). Moreover, coach initiated athlete input has been identified as an important aspect of an effective coaches behavioural repertoire (Turnnidge et al., 2013). The current study has illustrated that coaches’ desired amount of athlete input guides effective coach-athlete interactive behaviours. This is important as the work of Mageau and Vallerand (2003) has exemplified the benefits for youth involved in an autonomy-supportive sport environment. Given that previous literature has established a strong link between autonomy-supportive behaviours and positive athlete outcomes, it is encouraging to see that coaches are aiming to incorporate athlete input and actively seeking athlete opinions.
On the other hand, to give the athletes input and independence all the time would not be beneficial for athletes as it is important for the coach to provide professional support and guidance for athletes as well (Jones & Standage, 2006). Although coaches in the present study allowed for athlete input on many occasions, there were times where they did not want, or need athlete input. For example, when a coach was directing athletes to stand behind a cone during a drill, he would tell players where to go and what they should be doing. In this case, he wanted very little athlete input because it was not needed or necessary. This finding suggests that autonomy supportive environments are enhanced when there is a balance of allowing for athlete input and limiting athlete input. One might infer from these results that depending on the situation and context of the coach-athlete interaction, both allowing for, and limiting athlete input may facilitate positive outcomes for youth in sport. Ultimately, coaches’ resultant behaviour may have implications for youths experience in sport.

**Degree of Tolerance.** Coaches explained that their degree of tolerance for athlete behaviours helped guide the way in which they chose to interact. A coach’s degree of tolerance existed on a continuum, and depending on the athlete behaviour they saw or heard, coaches had more or less tolerance for that particular behaviour. This level of tolerance then shaped their interactive behaviour. Bandwidth feedback as described in the motor learning literature may serve as a useful analogy for explaining the variations in tolerance between coaches and for different athlete behaviours. Bandwidth feedback refers to the “provision of feedback only if errors are outside a predetermined range of correctness” (Swinnen, 1996, p.46). Similarly, a coach has a predetermined range of tolerance for athlete behaviour. If an athlete makes a mistake that falls within the bandwidth of tolerance, the feedback they receive, or the way in which the coach interacts with them, is very different compared to the feedback they receive when they engage in a behaviour that falls outside of the bandwidth of tolerance. In addition, these bandwidths can change depending on the stage of athlete learning or the difficulty level of the
task at hand. For instance, coaches in the present study reported that when they are teaching a new skill they are likely to be more tolerant of mistakes. In this case, mistakes likely fall within the bandwidth of tolerance and coaches are much less quick to anger or become upset. Given that a coach’s level of tolerance can drastically change their coach-athlete interactive behaviour, an interesting avenue for future research may be to further examine the factors that influence a coach’s degree of tolerance and whether or not these factors change between effective and less effective coaches.

**Team Unit Involved.** The last reason detailed by coaches to explain why they interacted in a particular manner related to the team unit involved. Coaches described that whether an individual, or the entire team was involved, changed the way they would interact with their athletes. One possible explanation for this is that during a practice, it may be more convenient to address the athletes in a group versus individually. For instance, a coach who saw multiple athletes make the same mistake stopped the whole team and interacted with them rather than pulling each player aside individually. On the other hand, when an athlete made a mistake that concerned only her, coaches were more likely to pull her aside to not disrupt the flow of practice. As previously mentioned individualized feedback and personalized coach-athlete interactive behaviours are characteristic of effective coaches (Becker 2009; 2013; Gould, Dieffenbach, & Moffet, 2002). However, it would be unrealistic for coaches to engage in only one on one interaction in a team sport environment. This provides unique challenges that one might not find in individual sport. Lorimer and Jowett (2009a) found that group size can affect the empathic accuracy of coaches. Coaches in individual sport environments were better able to perceive their athlete’s thoughts, feelings, actions, and intentions. The researchers posited that part of this could be attributed to the high degree of individual interactions coaches have with athletes in an individual sport environment. Perhaps the target of an interaction (i.e., individual or team) may be a salient quality that affects the efficacy of coach-athlete interactive behaviours.
Coaching Philosophy

Coaching philosophy emerged as a factor that permeated both why coaches chose to interact, and why they interacted in a particular manner. Coaches play a central role in the provision of sport experience for youth involved, and coaches’ philosophical beliefs are key to the climate they create (Collins, Barber, Moore, & Laws, 2011). Burton and Raedeke (2008) defined coaching philosophy as a “set of beliefs and principles that guide your behaviour. It helps you remain true to your values while handling the choices you must make as a coach” (p.4). The present findings regarding coaching philosophy support this claim as coaches used their coaching philosophy to help them make decisions regarding their athlete directed interactive behaviour. Martens (2004) stated that a sound philosophy is crucial to successful coaching and the facilitation of positive sport experiences. The current study sheds light on how this may be possible. Indeed, coaches could not describe their reasoning for interactive behaviour without referring to their own coaching philosophy. Given the apparent role of coaching philosophies and the importance it has regarding coaches’ decision making and resultant interactive behaviour, it may be useful for coach education programs to help coaches in developing their own philosophy, rather than simply explaining the importance of having one. Coaching philosophy has been posited to enhance consistency in one’s behaviour. Consistency has been identified as a quality coach behaviour exhibited by effective coaches (Becker, 2013). Future research is needed to have a better understanding of how coach philosophy can influence patterns of behaviour and in turn, athlete experiences.

Overall, the current investigation found that coaches make interactive decisions as part of a two-step process. First, coaches made a decision to interact and second, they chose to interact in a particular manner. When situated within a larger more applied coaching setting, the findings of the present study hold implications for coach training and practice. Existing coach training programs have traditionally focused on what specific decisions coaches should make in a given
circumstance (e.g. prescriptive “do this!” kind of teaching). However, the findings of this study suggest that more time should be spent on helping coaches to determine what information to consider at each of the two stages of the coach-athlete interactive decision process (i.e., their own philosophy, knowledge of the athlete(s) etc.). In addition, coaching philosophy has emerged as an important factor influencing coaches’ decision making and by extension, interactive behaviours.
Chapter 6

Conclusions

The purpose of this study was to examine coaches’ reasoning underlying coach-athlete interactive behaviours in context. This study attempted to address two research questions: (1) why do coaches choose to interact with their athletes? and (2) why do coaches choose to interact with their athlete’s in a particular manner? Stimulated recall interviews were used to unveil coach decision making and reasoning. Resultant data allowed for the conceptualization of a model to describe coaches’ decisions regarding coach-athlete interactive behaviour.

Coach decision making regarding coach-athlete interactions were found to be two-fold. First, coaches made a decision to interact with their athletes based on something they heard, saw, or knew. Coaches described that they would interact with their athletes for four reasons: (1) connect athletes to a larger picture, (2) teachable moments, (3) standards of behaviour, and (4) organization. Coaches then chose to interact in a particular manner. Two categories emerged that guided the way in which coaches interacted with their athletes they were: (1) athlete influences which included the sub-category knowledge of the athlete(s), and (2) communication strategies which included three sub-categories: degree of athlete input, degree of tolerance, and team unit involved. Overall, this process was influenced by a coach’s own personal philosophy.

The findings of this study offer insight into the thoughts underlying effective coach-athlete interactive behaviours. Specifically, these results add to the existing coaching literature by moving beyond observing what coaches do, and trying to understand the ‘why’ of coach-athlete interactive behaviours. In addition, the findings of the current study may contribute to the coaching literature by enhancing our understanding of effective coaching practice. As a result,
these findings may allow for coaches to facilitate sport environments that are most conducive to youths continued participation in sport.

**Limitations and Future Directions**

The implications of the present study should be considered with the limitations inherent to this study in mind. First, this study was conducted as an examination of only nine coaches. An exploration of a greater number of coaches and their respective sport environments would be advantageous and could help to strengthen the findings regarding coach decision making that foster positive outcomes in youth. However, due to the fact that this study was exploratory in nature, the smaller number of coaches involved in the study allowed for more in depth analysis and was considered a main priority.

Second, it was beyond the scope of the current study to collect athlete interpretations and perceptions of coach behaviour. While coaches explained their decision making behind each video clip and their reasons for their behaviour, no qualitative athlete data was collected to confirm whether coaches accomplished what they set out to achieve. Future qualitative studies may be beneficial in exploring athletes’ interpretation of what coaches were trying to accomplish through their coach-athlete interactions.

A third limitation concerns the generalizability of the current findings in other sport environments. Coaches in the present study shared many of the same qualifications and coached athletes of the same gender, age, and competitive level. Given the present studies findings, it may be useful to explore how the proposed model may help to explain coach behaviour in a wide range of sport contexts. For example, coaches at the elite level may use teachable moments in a different way or frequency to explain their behaviour compared to a participation coach for athletes at the recreational level.

Last, coaches were asked to explain interactions that were defined as lasting at least five seconds in length. An interesting avenue for future research may be to explore instances where
coaches choose to remain silent rather than interact, particularly in instances where athletes have clearly made mistakes or done something well.

In all, the current study has furthered our understanding of coach-athlete interactions and the decisions that guide coach-athlete interactive behaviour in a youth sport environment. This study has contributed to the growing body of literature that has highlighted coaches as a central figure in the sport environment. Moreover, the current study has showed that coaches consider a multitude of factors to inform their interactive behaviour and that these factors, can be influenced by each coaches own philosophy. Future research should continue to investigate the ‘how’ and ‘why’ behind coach behaviours. This line of research will help to build on the existing knowledge base of how coach behaviours and the coach-athlete relationships contribute to youths experience in sport.
References


Appendix A

Interview Guide
Interview Guide

How long have you been coaching?

How long have you been with the current team?

If any, can you tell me about what coaching credentials you have?

Have you had any life experiences that have contributed to your coaching career?

What makes an effective coach?

The following questions will be asked after the showing of each coach-athlete interaction clip:

What was the intention/goal of this interaction?

What led you to begin this interaction?
- What did you see or hear?
- What did you know?

What led you to interact with the athlete/group in this manner?

How did you feel about the course of this interaction?

Do you feel that this was an effective interaction?
Appendix B

Letters of Information
LETTER OF INFORMATION – Examining Youth Development in Sport

I am contacting you to ask for your assistance with a study currently being carried out by myself and a team of sport psychology researchers from Queen’s University. All studies have been approved by the Queen’s University Research Ethics Board.

Who we are and what we do:

Our sport psychology research lab consists of a team of graduate students working under the supervision of Dr. Jean Côté (Professor and Director of the School of Kinesiology and Health Studies at Queen’s University). The focus of my research is on athletic and personal development through youth sport. Youth sport has the potential to promote a number of important developmental outcomes in young athletes’ including increased performance, continued physical activity participation, and personal development. In examining youth development in sport, our primary research inquiries focus on: (1) athletes’ interactions and relationships with coaches, peers, and parents, and (2) environmental features of youth sport (e.g., types of practice activities, participation pathways through age and competitive levels, etc.) Our goal is to generate information that can be used by coaches, parents, sport programmers, and sport policy makers to maximize the quality and productivity of youth’s experiences in sport.

My Research Project:

I am currently conducting a study for my Masters thesis with the help of local soccer sport organizations in both ________ and ________. Specifically, I’m hoping to partner with the __________________ as it will allow me to increase the relevance and benefits of my findings to as wide an audience as possible.

To collect my data, I will ask athletes to complete a short questionnaire assessing the personal and social outcomes of their sport experience. In addition, I will videotape 2 training sessions with the coach wearing a wireless microphone in order to analyze both coach and athlete behaviour. Further, I may conduct interviews with some coaches asking them to reflect on their experiences while watching a video of a particular training session. We have previously used these data collection methods with several local sport organizations around eastern and southern Ontario and have encountered no issues or complaints from the organizations, participants, or parents involved.
Benefits for you and your organization:

Should you choose to participate with me in my research, I will provide you with a summary of the results and conclusions from my research project. I can also provide coaches with copies of the video footage of their teams. Further, though all individual results are kept strictly confidential and anonymous, we can provide each team or group with their own unique profile for feedback purposes. These are merely a few suggestions however, if there are any other services that we might offer that could benefit you and your teams, please feel free to let me know.

Thank you so much for your time and I look forward to hearing from you!

Sara Buckham

M.Sc. Candidate
School of Kinesiology and Health Studies
Queen’s University
Kingston, Ontario
PARTICIPANT PARENTAL LETTER OF INFORMATION

Title of the study: Examining Youth Development in Sport

We would like to ask for your daughter’s assistance with a study that is being carried out by a team of researchers from Queen’s University. The purpose of this study is to examine how youth develop personally through sport. The findings from this project will provide important information to coaches, sport programmers, and educators in regard to promoting positive personal development in sport settings and beyond as contributing members of society. This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies.

If your daughter volunteers to participate in this study, he/she may be asked to participate in two parts of the study. In Part I, participants will be asked to complete a questionnaire once over the course of their season. The questionnaire asks questions about your daughter’s sport environment and their sport experiences. The questionnaire should take about 15 minutes to complete each time. Some of the questions on this questionnaire will ask your daughter to rate other members of their sport group regarding their skill ability and social status. In addition, this questionnaire will involve members of the sport group rating your daughter’s skill ability and social status. These ratings will be kept completely anonymous and will not be shown to the other athletes or coaches. They have the right to not answer any questions that they are uncomfortable with and they are invited to contact TeleHealth Ontario at 1-866-797-0000 if any of these questions trigger emotional upset.

Part II of the study will involve teams being observed twice over the course of their season. Multiple sessions within the sport setting will be videotaped. The videotaped practices will then be watched by the researchers to understand the different coach-athlete interactions that occur within sport. There will be no deception used in this study. Participation is completely voluntary and your child will be informed that she can withdraw at any time.

This is part of a research project for which Sara Buckham is the primary researcher. The results from this study will be published and presented at conferences; however, the identity of your daughter will be kept confidential. All the information provided through the questionnaires and observations will be confidential and will be stored by in a locked office at Queen’s University for a minimum of seven years after the completion of the study. As a reminder, participation is completely voluntary and should you (or your daughter) wish, she may withdraw from all or part of the study at any time, for any reason, without explanation or consequences by contacting the...
principal researcher, Sara Buckham. Any information collected up to the time your daughter withdraws from the study will be destroyed.

With your permission and your daughter’s permission, the questionnaires and observations will be used to help improve young athlete development. If you and your daughter decide that she would like to be a part of this study, please complete the attached form. Also, please ask your daughter to read their letter and indicate her consent as well. Any questions about study participation may be directed to Dr. Jean Côté at 613-533-6000 x79049. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 613-533-6081.

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The purpose of this study is to examine how different coach behaviours affect youth’s development in sport. Specifically, the goal is to understand how the different ways coaches interact with athletes during practices leads to athletes’ experiences in sport. This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies.

The study will have each athlete complete a questionnaire related to his/her experience in this sport (i.e., on this specific team with this specific coach). As a component of this questionnaire, you will be asked to rate your athletes’ level of competence in sport. Two practices in that sport setting will then be videotaped. As a coach, you will be wearing a microphone to record any talking. The videotaped practices will then be watched by the principal investigator to understand the different coach-athlete interactions (i.e., patterns and sequences of coach/athlete interactions). Individual clips from the videos may also be used in a later part of the project. In addition, as a coach you may be asked to participate in an interview to better understand the dynamics of coach-athlete interactions. There are no known or foreseeable risks involved by participating in this study.

This is part of a research study for which Sara Buckham is the primary researcher. Information collected from coaches will remain completely confidential. For the entire study, all information collected will be kept in a locked filing cabinet by the primary researcher. Items will be available to the primary researcher and his research team. As a reminder your participation in this study is completely voluntary and you can decide to stop participating at any point without explanation or consequences. Should you decide to withdraw from participation, information collected to that point will be destroyed. Although there is no financial compensation it is anticipated that your information will help us to better understand the positive developmental experiences of youth sport participation.

The study is only interested in the information collected for the entire group and so all participants’ individual responses will never be known, keeping individuals identity secure. While the information collected may be presented at academic conferences and published in relevant academic journals, anonymity and confidentiality of all participants will be maintained.
Any questions about study participation may be directed to Dr. Jean Côté at 613-533-6000 x79049. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 613-533-6081.

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Appendix C

Consent Forms
I have read and understood the purpose of this study and my daughter’s involvement in this study. I am aware that my daughter will remain anonymous throughout the study and in any written results of the data collection through participation in this project.

I understand that my daughter’s participation in this research project is completely voluntary and that she has the right to not answer any question(s) that she feels uncomfortable with. I also recognize that my daughter has the right to withdraw from the study at any time without penalty and that any data collected to this point will be destroyed.

Finally, any questions I have about this research project and my daughter’s participation have been answered to my satisfaction. I understand that I am invited to contact the primary researcher and/or the General Ethics Review Board should I have any further questions or concerns about this research project and my daughter’s participation.

I, ____________________________ give permission to allow ____________________ to participate in the study conducted by the School of Kinesiology and Health Studies at Queen’s University.
Signature ______________________________ Date ______________

Please indicate if you wish to receive a summary of the study findings: [[]] Yes  [[]] No
PARTICIPANT CONSENT FORM-ATHLETE

You are invited to participate in a study entitled ‘Examining Youth Development in Sport’. This study has been granted clearance according to the recommended principles of Canadian ethics guidelines, and Queen's policies. Please read this form carefully and feel free to ask any questions you may have.

Purpose and Procedures
The purpose of this research study is to examine the personal development of youth in sport. If you volunteer to participate in this study, you will be asked to complete a questionnaire evaluating your personal experiences in sport. Some questions will ask you to rate other members of your sport group regarding their skill ability and social status. In addition, this questionnaire will involve members of your sport group rating your skill ability and social status. You will also be videotaped during your sport sessions.

Potential Risks
You have the right to not answer any questions that you are uncomfortable with and are invited to contact Telehealth Ontario at 1-866-797-0000 if any of these questions trigger emotional upset.

Potential Benefits
As a participant, you may be making important contributions to the research literature. We cannot and do not guarantee or promise that you will receive any direct benefits from the study.

Storage of Data
The original questionnaires and videotaped observations will be safeguarded and securely stored in a locked filing cabinet at Queen’s University for a minimum of seven years as per University requirements.

Confidentiality
The data from this study will be published and presented at conferences; however, your identity will be kept confidential.

Right to Withdraw
You may withdraw from the study for any reason, at any time, without penalty of any sort by contacting the principal investigator, Sara Buckham (613-533-6000 x78207). There will be no team related effects associated with withdrawal. You do not have to answer any questions that you do not feel comfortable answering. Any information collected up to the time you withdraw from the study will be destroyed.

Questions
Any questions about study participation may be directed to Sara Buckham at 613-533-6000 x78207. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 613-533-6081.

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Consent to Participate
I have read and understood the description provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

_________________________  _________________________
Signature of Participant   Date

_________________________  _________________________
Signature of Researcher    Date
PARTICIPANT CONSENT FORM – COACH

I have read the information letter and understand that this study requires the athletes I coach to complete a survey regarding their experiences in our specific sport setting (i.e., on this specific team, with me as a coach). I have been informed that I will be asked to assess the competence levels of my athletes. I also understand that the second part of this study involves the videotaping of multiple practices in order to examine interactions between coaches and athletes, and that I may be asked to participate in an interview.

I have been informed that my confidentiality will be protected throughout the study, and that the information I provide will be available only to the primary researcher and his research team. While the results of this study may be presented at academic conferences and/or in academic journals, I am aware that any results will be presented for the group only (i.e., no individual data will ever be reported) – thereby maintaining my anonymity. Similarly, the videotaped practices will only be viewed by the primary researcher and/or his research team and only for the purpose of data analysis – they will never be shown at conferences or in any other presentation.

I understand that my participation in this research project is completely voluntary and that I reserve the right not to answer any question(s) I do not feel comfortable with. I also recognize that I may stop participating at any time without explanation or consequence. I understand that any data collected up to that point will be destroyed.

Finally, any questions I have about this research project and my participation have been answered to my satisfaction. I understand that I am invited to contact the primary researcher and/or the General Ethics Review Board should any further questions or concerns about this research project or my participation.

I consent to participate in this research project.

Name of Participant                                        Signature                                        Date
Appendix D

Questionnaires
STUDY: Examining Youth Development in Sport

Current team: ____________________________________________________________

Name: _________________________________         Today’s date: _________________

Birthdate (DD/MM/YYYY): _________________

Number of previous seasons played this sport (not including this year): ______

Number of previous seasons with current head coach (not including this year): ______
Athlete Sport Competence Inventory

Sport competence refers to one’s ability to successfully perform a certain task in sport. In this form you will be rating the sport competence of both yourself and your teammates in soccer.

Please answer each question based on how skilled or competent you perceive yourself or your teammates in each of the areas listed compared to all of the athletes that you know. Please answer truthfully, basing your rating solely on the specific area described in each question.

Circle the number that best corresponds to your perceptions. A 5 represents the most competent athlete you know at your age/skill level, while a 1 represents the least competent athlete you know at your age/skill level. Please check the appropriate box when you reach the section where you are rating yourself.

Your answers will be kept completely confidential.

In this section, you will be evaluating **Player Name 1**  □ Check box if this is you.

**Please rate this person’s sport competence in the following areas:**

<table>
<thead>
<tr>
<th></th>
<th>Not at all competent</th>
<th>Somewhat competent</th>
<th>Moderately competent</th>
<th>Very competent</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Technical skills (e.g., shooting, passing, first touch, etc.)</td>
<td>Not at all competent 1</td>
<td>Somewhat competent 2</td>
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<td>Not at all competent 1</td>
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<tr>
<td>Physical Skills (e.g., strength, speed, agility, endurance, etc.)</td>
<td>Not at all competent 1</td>
<td>Somewhat competent 2</td>
<td>Moderately competent 3</td>
<td>Very competent 4</td>
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</tr>
</tbody>
</table>

In this section, you will be evaluating **Player Name 2**  □ Check box if this is you.

**Please rate this person’s sport competence in the following areas:**

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<thead>
<tr>
<th></th>
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</tbody>
</table>
Sport Confidence Inventory

A number of statements that athletes have used to describe their feelings in sport are given below. Read each statement and then circle the appropriate number to indicate how you generally feel while participating in your sport.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>2</th>
<th>3</th>
<th>Very much so</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel self-confident.</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I’m confident I can meet the challenge.</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I’m confident about performing well.</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I’m confident because I mentally picture myself reaching my goal.</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I’m confident of coming through under pressure.</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Coach-Athlete Relationship Questionnaire

This questionnaire is designed to assess your relationship with your coach. Please answer truthfully. All answers will be kept completely confidential.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel close to my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>I feel committed to my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>I feel that my sport career is promising with my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>I like my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5.</td>
<td>I trust my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6.</td>
<td>I respect my coach</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>I feel appreciation for the sacrifices my coach has experienced in order to improve his/her performance</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>When I am coached by my coach, I feel at ease</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9.</td>
<td>When I am coached by my coach, I feel responsive to his/her efforts</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10.</td>
<td>When I am coached by my coach, I am ready to do my best</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11.</td>
<td>When I am coached by my coach, I adopt a friendly stance</td>
<td>Not at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Peer Connection Inventory

The following questionnaire will assess your relationships with your teammates in sport. Please answer each question based solely on the sport environment, excluding any contact outside of the team/group.

Please answer truthfully. Your answers will be kept completely confidential.

Please circle the 3 teammates that you enjoy participating in your sport with the most

**Team Roster goes here**

Please circle the 3 teammates that you enjoying participating in your sport with the least

**Team Roster goes here*
Behavior in Sport Scale

Below is a list of behaviours likely to occur during matches/games. Please think about your experiences while playing your sport and indicate how often you engaged in these behaviours this season by circling the relevant number. Please respond honestly.

<table>
<thead>
<tr>
<th>While playing for my team this season, I...</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gave positive feedback to a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Criticized an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Argued with a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Helped an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Deliberately fouled an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Asked to stop play when an opponent was injured</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Verbally abused a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Encouraged a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Retaliated after a bad foul</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Helped an injured opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Criticized a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Gave constructive feedback to a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Tried to wind up an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Swore at a team-mate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Congratulated a team-mate for good play</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Tried to injure an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Intentionally distracted an opponent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>18. Showed frustration at a team-mate's poor play</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
<tr>
<td>19. Intentionally broke the rules of the game</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>20. Physically intimidated an opponent</td>
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