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Applying Kolb's Theory of Experiential Learning to Coach Education

Ashley E. Stirling

University of Toronto, Toronto, Canada

ABSTRACT

Coach education is the key to improved coaching. In order for coach education initiatives to be effective though, the conceptualization of those initiatives must be developed based on empirical learning theory. It is suggested that Kolb's theory of experiential learning may be an appropriate learning theory to apply to coach education. This paper outlines how Kolb's theory of experiential learning was used in the development of Canada's National Coaching Certification Program coach education module entitled "Empower +: Creating Positive and Healthy Sport Experiences." The module is summarized briefly, and Kolb's six key tenets of experiential learning are reviewed. Applications of each tenet within the coach education module are highlighted, and recommendations are made for future evaluation and research.

Key Words: coaching, evaluation, learning theory



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Coach education, understood as the process by which coaches acquire coaching and sport-related knowledge, can take many forms, including coaching experience, observation of other coaches, apprenticeships, coaching seminars and conferences, and more traditional classroom-based coaching courses (Cushion, Armour, & Jones, 2003). Literature on the development of coaching expertise has explained that coach education is the key to improved coaching and is essential for coach development (Côté, 2006; Sullivan, Paquette, Holt, & Bloom, 2012; Woodman, 1993).

Partly in response to emergent research highlighting the importance of effective coaching in sport and the need for lifelong coach learning, a number of coach education initiatives around the world have recently been launched (Trudel, Gilbert, & Werthner, 2010). To ensure that coach learning is optimally facilitated, it is important that the content of coach education programs derives from empirical sources and that the conceptualization of these initiatives is based on empirical learning theory. This recommendation is consistent with current views on the importance of competency-based coach education (Banack, Bloom, & Falcao, 2012; Demers, Woodburn, & Savard, 2006) and the application of learning theory to coach education development (Demers et al., 2006; Jones & Turner, 2006).

One learning theory that may be applied to coach education is David A. Kolb's (1984) experiential learning theory. This theory is frequently cited and drawn upon by educational practitioners and researchers, and it has even been referred to as "a bible for practitioners" (Moore, 2010, p.4). Kolb used the term "experiential learning" to describe his perspective on learning in order to link his ideas to their roots in the work of Dewey (1938), Lewin (1951), and Piaget (1971) and to emphasize the central role that experience plays in the learning process. Within Kolb's experiential learning theory (1981, 1984), learning is described as a four-stage cycle consisting of concrete experience (CE, feeling dimension), reflective observation (RO, reflecting/watching dimension), abstract conceptualization (AC, thinking dimension), and active experimentation (AE, doing dimension). Each stage, also referred to as an adaptation of learning mode, provides the basis for the succeeding learning stage, and learners need the abilities represented by each stage in order for learning to be most effective (Evans, Forney, Guido, Patton, & Renn, 2010; Kolb, Boyatzis, & Mainemelis, 2001).

Despite its popularity, experiential learning theory has been criticized for over-emphasizing the learning of the individual and failing to consider the broader social context of learning, power, and experience (Holman, Pavlica, & Thorpe, 1997; Vince, 1998). Kayes (2002) provided a thorough review of these critiques and addresses these criticisms by proposing a poststructural approach to experiential learning. More specifically, Kayes suggested the important role of language in the experiential learning process and proposed its integration through specific methods such as storytelling and conversation.



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Application of Kolb's tenets of experiential learning may help address some of the shortcomings of formal coach education and contribute to improving the effectiveness of coach education programs. Reported limitations of formal coach education include an overemphasis on theory presentation (Lemyre, Trudel, & Durand-Bush, 2007), lack of consideration for practical applications (Gilbert, Dubina & Emmett, 2012; Lemyre et al., 2007), inability to address the complexities of real-life coaching situations (Côté, 2006; Demers et al., 2006), and lack of interaction among coaches (Côté; Demers et al., 2006; Lemyre et al., 2007). At the same time, coach education has been criticized for a declining emphasis on sports science (Stone, Sands, & Stone, 2004). Furthermore, although formal coach education courses may increase the knowledge base of the coach, required knowledge alone may not improve overall coaching effectiveness (Abraham, Collins, & Martindale, 2006; Gould, Giannini, Krane, & Hodge, 1990).

Further supporting the use of Kolb's theory of experiential learning in coach education, a wealth of coaching research (Armour, 2010; Bell, 1997; Côté, 2006; Cushion et al., 2003; Gilbert & Trudel, 2001; Jiménez, Lorenzo, & Ibáñez, 2009; Nelson & Cushion, 2006) has indicated the importance of experience and reflection, key concepts in experiential learning theory, (Kolb, 1984). Werthner and Trudel (2006) proposed a theoretical perspective for understanding how coaches learn to coach, which includes the influences of personal experiences of the coach, structuring knowledge through reflection and critical discussion, and the variety of potential formal, nonformal, and informal learning situations that may exist in the sport environment. Trudel et al. (2010) also stated, "...coaches, like any adult learner, learn how to coach through various learning situations across their lifespan" (p. 149). Similarly, experiential learning theory suggests that learning is a lifelong process whereby knowledge is continually modified and recreated within each individual based on the ongoing experiences of that individual (Kolb, 1984). This is consistent with certain assumptions about adult learning (androgogy), specifically that adults come to an educational activity with a wealth of previous experience and that tapping into these experiences through experiential activities benefits adult learning (Knowles, Swanson, & Holton, 2005). In addition to the andragogical benefits of experiential learning, the use of this approach to coach education may evoke coach interest in the formal education program. Coaches have been found to be highly receptive to the practical application of reference materials that include case studies and examples that apply sport science theory to practical situations (Wright, Trudel & Culver, 2007).

Looking at previous competency-based coach education, Jones and Turner (2006) applied a problem-based-learning approach to a coach education undergraduate course at the University of Bath and used "realistic, problematic scenarios and subtle tutor questioning to challenge and instill in students critical ways of thinking, to be subsequently transferred into practical situations" (p.185). This problem-based approach shares several common features with experiential learning theory, such as the use of critical thinking and applied theorization. The major distinction of experiential learning is the emphasis on the lived experience—a factor previously reported as enhancing coach learning (Armour, 2010; Bell, 1997; Côté, 2006; Cushion et al., 2003; Gilbert & Trudel, 2001; Nelson & Cushion, 2006). Interestingly, previous research has reported the combination of problem-based learning and experiential-learning-



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theory methodology as highly beneficial to student learning within a sport pedagogy module (Bethell & Morgan, 2011).

While Kolb's four-stage learning cycle has not been specifically referenced in relation to a particular coach education program, a recent review of coach learning and development outlined the potential application of this experiential learning theory (Cushion et al., 2010). The application of experiential learning to coach education has also been previously discussed in relation to the implementation of coaching internships and reflective practice within the Baccalaureate in Sport Intervention (BIS) at Laval University—an undergraduate program in which the professional competencies are closely aligned with those of Canada's National Coaching Certification Program (NCCP; Demers et al., 2006). Banack et al. (2012) also articulated the importance of measuring the translation of knowledge to practice as an indicator of learning and coach education effectiveness within Canada's NCCP. Accordingly, Kolb's experiential learning theory was used as the guiding theoretical framework for the recent development of Canada's NCCP coach education module entitled "Empower +: Creating Positive and Healthy Sport Experiences." The purpose of the current paper is to review the use of Kolb's experiential learning theory to inform the development of this coach education module. The module will be summarized briefly, and key tenets of experiential learning will be reviewed. Based on previous recommendations for assessment in experiential education, recommendations will be made for evaluation of the educational module.

The Coach Education Module: Empower +

Consistent with the core competencies of Canada's NCCP, the "Empower +" coach education module was designed to help coaches develop competencies in problem-solving, valuing, critical thinking, leading, and interacting, with a focus on how these competencies pertain to enhancing athlete welfare in sport. It is a thought-provoking, 4-hour, professional development module that teaches coaches how to enhance the well-being of athletes in their care and be a positive role model in the world of sport. It is intended that coaches, after finishing this module, will have an enhanced ability to apply a problem-solving approach to making ethical decisions related to maltreatment in sport. In particular, they will be able to (1) critically reflect on their own experiences in sport, (2) recognize the potential for and presence of maltreatment in sport, (3) determine when and how to intervene when they observe or suspect maltreatment, (4) apply the six-step NCCP Decision-making Model to make ethical decisions related to maltreatment in sport, and (5) identify the conditions related to creating positive and healthy sport experiences that enhance the well-being of athletes in their care (Stirling & Wheeler, 2012).

This module is designed as a professional development module for all coaches, regardless of sport and coaching context (community, competition, and instruction). Although the module is delivered in a classroom setting, consistent with the overarching problem-based learning approach of Canada's NCCP, it follows this problem-based design and moves past typical lecture format to more experiential-based education, incorporating interactive experiential activities and



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drawing on previous coach experiences and critical reflections. The development of this module was based strongly on the tenets of experiential learning as described by Kolb (1984).

Application of Kolb's Basic Tenets of Experiential Learning

Kolb (1984) outlines six basic tenets of experiential learning. In this section of the paper, each tenet is reviewed and is discussed in relation to the development of the “Empower +” module. A summary is provided in Table 1.



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Table 1.
Applying Kolb's Six Tenets of Experiential Learning to Coach Education

Tenet	Coach Education Strategy	Application in Empower+ Module
Learning is a process	Coaches need to acknowledge previous informal and formal learning. Coaches' learning should be viewed as ongoing.	Coaches chart reflections on previous positive experiences in sport to develop a coaching philosophy, values, and goals as a coach. Coaches are provided with take-home exercises.
Learning is grounded in experience	Learning experiences should be introduced at an appropriate pace. Coaches' preconceptions need to be challenged in light of new experience, theory, and reflection.	Learning activities are strategically organized to not overwhelm the coach with the topic of maltreatment. Interactive case studies and role play exercises are used to facilitate new learning experiences.
Learning involves mastery of all four learning modes	Coaches need to have opportunities to experience, reflect, theorize, and apply their learning.	<i>Experience:</i> Interactive case studies and role play exercises are used. <i>Reflect:</i> Coaches complete a self-reflection chart. <i>Theorize:</i> Reference materials and mini-lectures are presented. <i>Apply:</i> Coaches problem-solve and create an action plan for enhancing athlete welfare.
Learning is a holistic process of adaptation	The coaches' feelings, perceptions, thoughts, and actual behaviors should be addressed through the coach education.	<i>Feelings:</i> The harmful effects of maltreatment and inspirational messages encouraging the coaches to make a difference are presented. <i>Perceptions:</i> Coaches engage in reflection exercises on the positive impact that coaches can have on athlete well-being. <i>Thinking:</i> Coaches decide best options for maltreatment intervention. <i>Behaviors:</i> Role-playing exercises and goal planning are facilitated.
Learning involves transaction with the environment	Coaches require experience in the wider real-world environment (i.e., hands-on coaching experience).	Reflection exercises draw upon real-world sport experiences. In-person delivery and group work exercises are used to facilitate interactions and advocacy among coaches. There is an expectation that coaches will experiment in applying their action plans in practice and will complete the take-home exercises.
Knowledge is created through learning	The actual learning should be specific to each individual coach.	Opportunities are provided for coaches to draw on personal experiences and develop individualized action plans.

Tenet 1: Learning Is a Process.

Learning is best conceived as a process, not in terms of outcomes. Distinguishing experiential learning from the more traditional approaches of lecture-based classroom education, Kolb (1984) explains, "The theory of experiential learning rests on a different philosophical and



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epistemological base from behavioral approaches of learning and idealist educational approaches” (p. 26). Consistent with postmodern epistemological assumptions, Kolb postulates that knowledge is constructed as a person forms and re-forms ideas through individual experience. In this view, “No two thoughts are ever the same, since experience always intervenes” (p. 26). Accordingly, learning is understood as a constant succession, and knowledge is continually modified and recreated based on previous and ongoing experiences of the learner. Applying this tenet to the development of the “Empower +” module, we recognized that coaches will bring with them a wealth of previous experiences, which will contribute to the knowledge produced by the coach within the educational session. During the first activity in the module, the coach is asked to reflect on his/her previous experiences, both as a coach and potentially in other roles such as athlete, parent, or administrator. The coaches are asked to record in a chart their reflections on previous positive sporting experiences, the strategies used to create these positive experiences, and the stakeholders involved. Coaches are asked to return to this chart at several points throughout the module to continue to add experiences as they are remembered. After coaches are introduced to reference materials on positive athlete-development strategies, the coaches return again to their reflection charts and are asked to re-reflect on their previous experiences based on the new information provided and to develop a list of key strategies for creating positive sport experiences for their athletes. In this way, the learning is individualized to each coach, and the knowledge and specific strategies produced for enhancing athlete welfare relate directly to the coaches’ own experiences and critical reflections on these experiences.

Not only is knowledge produced as coaches reinterpret previous experiences in light of new information, but it is expected that the coaches’ learning will continue as they continue to have and reflect on future experiences. Accordingly, in addition to the classroom exercises that occur during the course of the module, the coaches are purposefully provided with a take-home booklet of reference materials, including a list of self-reflection questions they should pose during practices and competitions (e.g. “Do my words or actions enhance the athlete’s enjoyment in sport?”) and follow-up questions (e.g. “How can I be an even better coach tomorrow than I was today?”) for after practices and competitions. These exercises are intended to encourage ongoing critical reflections, link these reflections back to the intended learning outcomes of the module, and promote continual learning.

This tenet also has had important implications for coach evaluation. There is no formal coach evaluation that coaches have to complete in order to gain credit for finishing the module. This is because, consistent with experiential learning theory, it is suggested that coaches’ learning and achievement of the intended learning outcomes is not complete at the moment that the educational session ends. Instead, it is the intention of the module that the coaches gain new insights and resources that will help enhance their learning of the intended outcomes during participation within the module as well as following module completion. Applying this tenet to general coach-education evaluation, it is suggested that the timing of evaluation measures should be cautiously considered. Consistent with the continuing nature of coach learning, it is recommended that a long-term and ongoing evaluation scheme may be most appropriate.



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Tenet 2: Learning Is Grounded in Experience.

Learning is a continuous process grounded in experience. Kolb (1984) emphasized that learning is a process that occurs from and is continually tested through experience. More specifically it is the difference between the expectations and experiences of the learner that facilitates the learning process. An optimal balance is needed, however, in this interplay between expectation and experience. If a person is too focused on continuity and certainty, this has potential to lead to rigidity and impede learning. On the other hand, to have continuity frequently disrupted with new experiences can lead to insecurity and skepticism, also not conducive to learning. As such, Kolb called for an attitude of provisionalism, also referred to as partial skepticism, which is created by presenting a learner with new learning experiences that are appropriately disparate from the learner's expectations and at a pace that still allows for a degree of stability within the learner. Furthermore, because all learning is grounded in experience, "All learning is relearning" (Kolb, 1984, p. 28). Everyone enters a potential learning situation with a preset knowledge base and set of expectations based on their previous experiences. Education therefore, cannot strive to merely implant new ideas on a blank slate, but instead needs to modify preconceived ideas within the learner and integrate previous beliefs and theories with the more refined ideas.

In the development of the coach education module, the coaches' learning is continually grounded in their own experiences through the self-reflection exercises described above (i.e., the self-reflection chart and take-home reflection questions). It is recognized that coaches will bring different experiences and perceptions on the issue of athlete maltreatment to the module. For that reason, learning facilitators are trained to deliver the educational material in a sensitive manner. They must balance the possible need to confront coaches' potentially outdated or contrasting notions about what is appropriate and inappropriate coaching conduct in sport with the need to maintain feelings of stability in creating an environment conducive to learning.

Another way to help maintain stability in the learner, in addition to the style of delivery, is through organization. The learning activities within the module are organized so that the coach is not overwhelmed with the topic of maltreatment right away. Instead the module begins with an exercise on the potential positive experiences an athlete may have in sport before introducing the topic of maltreatment. Furthermore, in order to account for the potential disparity between the learners' expectations of what is maltreatment and how it should be addressed, the coaches return, after this section, to reflecting on their own positive sport experiences (presumably a less threatening activity), followed immediately by a scheduled break period. This organization gives coaches an opportunity to work on material with which they may feel more secure before moving on to the topic of maltreatment again—specifically how to have difficult conversations about maltreatment—after the break.

This tenet is also applied to the specific experiential activities included in the module. In the module, learning facilitators guide coaches through a number of practical experiences related to the educational material. For example, using a case-study analysis coaches are presented with



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a maltreatment situation and asked to work in groups to decide what may be their best option for intervention: report, notify, resolve informally, and/or support healthy practices. Also, through an interactive role-playing exercise, coaches practice the art of having difficult conversations on the topic of athlete maltreatment. In this last exercise, coaches are asked to pair up with another coach. The coaches are next presented with a case scenario in which they are the head coach and need to talk to the assistant coach about the use of potentially harmful coaching practices. Each coach first experiences having the difficult conversation on their own (without any guidance). Afterwards, the coach has time to reflect and debrief on how the conversation went. The coaches then receive reference materials with guidelines and suggestions on how to have these difficult conversations. Next, using a chart, the coaches problem-solve and outline a list of questions/statements they may use in their conversations in order to make them more effective. Finally, the coaches are given time to practice and implement these changes in their role-playing.

Tenet 3: Learning Involves Mastery of all Four Learning Modes.

Learning is a tension-filled process achieved through four learning modes: *concrete experience* (CE, feeling dimension), *reflective observation* (RO, reflecting/watching dimension), *abstract conceptualization* (AC, thinking dimension), and *active experimentation* (AE, doing dimension). This is referred to as Kolb's cycle of learning. In order for learning to be effective, learners need to master all four modes of learning. Mastery of all four learning components, however, is complicated by Kolb's suggestion that "learning requires abilities that are polar opposites" (Evans et al., 2010, p. 138). CE and AC compose an apprehending/grasping dimension, while AE and RO form a transforming/processing dimension. Each dimension includes two opposite ways of adapting to the world. These are the conflict between experience and conceptualization (grasping dimension) and the conflict between reflection and action (processing dimension). Ultimately, the way the conflict gets resolved between these opposed learning modes determines the level of learning that occurs, with most effective learning resulting from a balance and integration of all four modes.

Consistent with this tenet of experiential learning, the coach education module was designed to ensure that coaches receive a variety of interactive learning activities addressing each of the learning modes throughout the module. This was done to ensure that coaches are challenged to address the topic of athlete maltreatment using each of the learning dimensions, thereby encouraging integration of all four learning modes. The coaches are encouraged to reflect on their previous coaching experiences and general experiences in sport and to review some form of reference material, and they are then asked to transfer their new thoughts to a practice scenario before practicing their skills or going back to their own teams to apply what they have learned. More specifically, for an icebreaker, the coaches are asked to complete a self-reflection chart in which they record their personal reflections on previous experiences in sport. These reflections are shared in groups, and, to allow for continual self-reflection, the coaches may return to this chart several times throughout the module to add new reflections based on the comments of others and any information learned. Instead of using a formal lecture to present the background literature to the coaches, the module asks the coaches to complete a crossword



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puzzle using the information provided in the reference material. Applying the reference material to practice, the coaches apply what they have read by working through a series of group case studies. Also, in order to practice the skills necessary for intervention in cases of suspected maltreatment, coaches role-play potential real-world situations using a number of props (i.e., different hats) to help alleviate any tensions they might experience during this practice exercise. The module then ends with coaches problem-solving and creating a list of strategies they can use to enhance the welfare of their athletes, along with a plan on when and how to implement these strategies in their own coaching.

Tenet 4: Learning Is a Holistic Process of Adaptation.

According to Kolb (1984, p. 31), learning is the “central process of human adaptation to the social and physical environment.” Unlike concepts such as cognition or perception (understood as specialized realms of human functioning), learning requires the holistic integrated functioning of the total organism, including feeling, thinking, perceiving, and behaving (Kolb). As described in Kolb’s developmental process, learning is viewed as the major process of adaptation that occurs in all human settings and across all life stages. In this developmental process, learning encompasses long-term mastery of situations both across time and space. Effective learning (i.e., the ability to integrate all four learning modes) is an indicator of personal growth and is viewed to be important for personal fulfillment and cultural development (Evans et al., 2010).

As described in tenet 3, in developing the coach education module, educational activities were designed to draw on each of the four learning modes. In this way, the activities also promote learning as a holistic process, including the integrated functioning of the affective, perceptive, cognitive, and behavioral dimensions of the learner.

Coaches’ feelings regarding the acceptability and need to intervene in cases of maltreatment in sport are addressed through the presentation of examples and case studies of athlete maltreatment, including both the scenario and long-term negative implications of the maltreatment. In addition, motivational messages are embedded throughout the module to help coaches feel that they are in a position to make a difference. These messages include “Every coach can make a difference” and

The biggest single factor that affects every athlete is the coach. If coaches become mindful of their own coaching practices and coach other coaches to be attentive to their practices, it will affect generations of athletes! (Stirling & Wheeler, 2012, Reference Material, p. 2).

The perceptive dimension of the coach is addressed through the previously described critical self-reflection exercises. These exercises are intended to help coaches reflect and re-reflect on their own coaching conduct and previous sport experiences, with the aim of bringing coaches to the understanding that there are other ways to treat athletes that would enhance rather than impair long-term well-being.



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The module uses several exercises for enhancing the cognitive abilities of the coaches, including the case studies where coaches have to think through a maltreatment situation and decide their best option for intervention. Similarly, the role-playing involving difficult conversations with another coach about their coaching conduct, leads coaches to think about what the most appropriate approach to this conversation might be and to use the reference materials to develop their own framework, questions, and statements for having the conversation. Finally the module addresses the coaches' actual behaviors in a couple of ways. Through the role-playing exercise, coaches have the opportunity to practice difficult conversations about situations of athlete maltreatment. Also, at the end of the module, coaches develop a plan for action consisting of three elements. These elements are a list of strategies they would use to promote positive athlete development and enhance the well-being of athletes in their care, a goal plan for when they will make the changes, and a commitment to at least one strategy they can implement in their coaching right away.

Tenet 5: Learning Involves Transactions with the Environment.

Learning involves transactions between the person and the environment. The traditional lecture-based-learning model is a teacher-centered approach in which learning is viewed to be “derived from the instructor, in a lecture setting, imparting what is known about a subject and, thus, hopefully resulting in knowledge transfer” (Shreeve, 2008, p. 24). In contrast, in experiential learning, experience in the wider real-world environment is viewed as essential to the learning process. The relationship between environment and learner is viewed as a two-way transactional process in which the environment both influences and is influenced by the learning process of the learner. Learning in this sense applies to everyday life and extends beyond a particular group, classroom, or laboratory setting (Kolb, 1984).

For these reasons, the module exercises were designed to draw on real-world sport experiences. This was done both in the maltreatment situations provided and in the coaches' continual reflections and discussions of their own real-world experiences in sport. To ensure that coaches can relate their own experiences to the course content, a number of maltreatment scenarios are included in the coaching workbook. These scenarios cover a range of individual (e.g, artistic gymnastics, athletics, snowboarding, swimming) and team sports (e.g., hockey, soccer, tennis, wheelchair basketball), competition levels (community and competition), and coach and athlete sexes. Based on the background and sport context of the coaches participating in the module, the learning facilitator is instructed to select the scenarios that are best suited to the coaches in the room.

In order to facilitate interactions between coaches within the classroom environment, all of the module activities involve an element of group work or discussion. In addition, the module was designed to be facilitated as an in-person education session in order to emphasize the importance of coaches' networking, sharing ideas, and encouraging one another in their safeguarding efforts. It is proposed that, in comparison to an online method of delivery, the in-



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person education allows for greater personal interactions to occur between coaches during group work or break sessions.

Related to tenet 1 (learning is a process), it is expected that learning will continue as a coach interacts in the real-world coaching environment. As a result, take-home exercises intended to promote ongoing critical self-reflection and continual learning of the intended outcomes were created for the coaches. Admittedly, in designing the coach education module, we were limited to creating a one-time 4-hour (max) session. In order to further enhance the transactions between the learning process and the environment, this module could be improved by adding a practical real-world coaching component or additional follow-up sessions in which coaches can re-reflect on their coaching experiences and apply specific results of their learning to their own coaching and vice versa. While it may be difficult to plan for a situation in which a coach may face a maltreatment scenario, it is reasonable to expect that a coach can continually reinterpret his/her own coaching behaviors and identify ways for supporting positive athlete development.

Tenet 6: Knowledge Is Created Through Learning.

Learning is the process of creating knowledge. Kolb's (1984) final tenet speaks to the underlying epistemological assumptions of experiential learning in relation to the nature of knowledge itself: "To understand learning, we must understand the nature of knowledge, and vice versa" (p. 38), including an understanding of the origins, nature, methods, and limits of knowledge itself. Kolb (1984) suggests that knowledge is created as people interact with the world around them and accumulate both objective and subjective experiences. Accordingly, knowledge that is created through the learning process is subjective to each individual's refined interpretations of experience and is therefore limited in its generalizability across learners. More specifically, the theory of experiential learning suggests a typology of knowledge systems that ultimately asserts that the nature of knowledge and truth itself is not an absolute (Kolb, 1984). This typology depends on the way an individual resolves the conflict between the opposed learning modes of concrete experience and abstract conceptualization and of reflective observation and active experimentation (Kolb, 1984). This may be interpreted to suggest that knowledge acquired from the coach education module on what is maltreatment and best options for intervention may vary between individuals. Previous research has reported that although two different athletes may experience the same harmful coaching practices, one athlete may experience long-term negative effects on psychosocial health and the second athlete may not be adversely affected by the experience (Stirling & Kerr, 2013). This point is further highlighted in Smoll and Smith's (2002) mediational model of coaching, in which the authors describe the effects of a coach's behavior and athletes' evaluations of a coach's behavior as varying depending on the how the behavior is perceived by the individual athlete. Similarly, how each coach makes sense of the materials and lessons provided in the coach education module will inevitably vary between coaches.



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This underlying epistemological assumption was applied to the content and delivery of the coach education module. In attending to the subjectivity and typology of knowledge systems within each individual, the module reference material and presentation slides emphasize that, when discussing the topic of athlete maltreatment, what is considered appropriate and inappropriate coaching conduct changes over time and depends on how the behavior is interpreted by the person who experiences it.

It is also recognized that coaches' learning will be individualized. Depending on the previous experiences a coach brings to the module and the coach's preferred learning style/mode(s), coaches' personal strategies for enhancing athlete welfare and the emphasis of each of the learning dimensions of feeling, perceiving, thinking, and behaving may differ. Accordingly, the final exercise, which builds on and applies all the previous learning activities included in the module, is personalized to each coach. At the end of the module the coaches are challenged to develop a personal action plan for enhancing athlete welfare in sport. This exercise has no right or wrong answers, and coaches have the freedom to emphasize the learning outcomes of the module and/or learning dimensions to which they most closely relate.

Recommendations for Module Evaluation

Given the importance of having empirically based coach education programs, existing programs should also be evaluated and continually improved based on new and emerging coaching research. Evaluating education modules is important in order to assess the extent to which the module is achieving its intended outcomes and to provide a feedback mechanism by which content and process can be refined (Newby, 1992). This assertion is supported by Gilbert and Trudel (1999), who said that "evaluation of coach education programs has become one of the most pressing issues in sport science research" (p. 235).

Although limited, some literature is available on the programmatic assessment of experiential learning. The intention of programmatic assessment is generally two-fold: (1) to assess the success of the program within overall student achievement and (2) to assess the learning that has occurred through the course of participation in the experiential activity (Qualters, 2010). Assessment of student achievement in experiential learning activities generally focuses on the demographics and accomplishments of past/present students who complete the program. Methods of data collection entail collecting quantitative data as indicators of program success. The data are generally external and superficial in nature. For example, the number of student participants, grade point averages, postgraduation work, and job placement statistics may be used (Maki, 2002; Qualters, 2010). In assessing the achievement success of coaches who complete the coach education module, one could examine the number of coach participants, overall certifications/credentials of coach participants, coaches' achievements and accomplishments, and the coaches' coaching practices and/or well-being of the athletes of the coach participants following module participation. In general, these data are used to promote the potential benefits of the experiential learning activity, but they do not critically evaluate the



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program in a way that would provide information on the learning that occurs within the program and/or on areas for improvement.

The intention of evaluating learning within experiential activities (the second component of programmatic assessment) is to gather information on the quality of the learning experience. Evaluation of learning, however, is complex and is complicated by the fact that we must understand learning as a process. As such, the influence of experiential activities on student learning may extend beyond the end of a student's participation in the experiential activity and will continue to influence future learning and development in light of continued and future experiences (Qualters, 2010). When reviewing different measures of evaluating student learning, it is suggested that assessment should use multiple perspectives and a variety of methods (Maki, 2002).

Looking at the assessment process, Qualters (2010) applied Astin's (1993) classic assessment model to the evaluation of experiential learning. This model includes three processes: input, environment, and output (I-E-O). The proposed strengths of this evaluation process are that it is ongoing, aims at improving and understanding learning, considers the holistic nature of experiential learning, includes multiple perspectives of evaluation, and has explicit expectations for documentation, such as a final evaluation report and/or publication (Qualters, 2010).

The input process involves assessing students before an intervention in order to find students' current perceptions, knowledge, skills, and attitudes related to the intended learning objectives of the experiential activity. Also included at this stage is assessment of student concerns and what they are hoping to gain from the experience. For the present coach education module, this could include assessment of each of the learning outcomes before coach participation. The coach feedback on what they may be looking for in the education module would also be beneficial.

The environment process involves assessing students during the experience. This includes structured reflective journals, collective group reflection, and periodic structured observations from faculty on the growth of student learning in the community/experiential setting. For the coach participants in the present module, this could include assessment of the coaches' verbal self-reflections and reflection charts completed in the module, or learning facilitators' observations of learning within group experiential activities and debrief conversations.

Finally, the output process includes assessing the success of the student in achieving desired learning objectives following the experience, including holistic assessment of all learning modes and affective, perceptive, cognitive, and behavioral qualities. This process often involves repeating the input assessment to identify changes over the course of the learning experience. Students may also be asked to identify new insights or to make recommendations for enhancing their learning within the experiential activity. In assessing the output process of the coach education module, evaluation of each of the learning outcomes following the coaches'



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participation in the module would be recommended, allowing for multiple measurement periods to balance the need to account for ongoing learning with potential retention issues over time. Practical observation of coach participants applying the learning outcomes of the education module within their regular coaching environment may be useful. Information on coaches' perceived learning and recommendations for enhancing the learning experience would also be useful for future module improvement.

Conclusion

In this paper, coach education grounded empirically in content and conceptualization is proposed as key to enhancing coaching effectiveness. This position is consistent with previous literature outlining the importance of competency-based coach education (Banack, et al., 2012; Demers, et al., 2006) and the application of adult learning theory to coach education development (Demers, et al., 2006; Jones & Turner, 2006). "Empower+: Creating Positive and Healthy Sport Experiences" was recently developed as a part of Canada's NCCP (Stirling & Wheeler, 2012). It is a professional development coach education module aimed at educating coaches on issues of maltreatment and positive athlete development in sport. In developing this module, the six tenets of Kolb's experiential learning theory were applied:

- Learning is treated as a continual process by incorporating coaches' reflections on previous experiences in sport and encouraging ongoing reflection in the future.
- Through the use of interactive activities coaches gain hands-on experience determining the best options for intervention and practicing some of the skills required to intervene in potential cases of maltreatment.
- Through group and individual activities, presentations, and follow-up exercises, coaches have the opportunity to experience, reflect, theorize, and apply the course content, thus using all four modes of Kolb's learning cycle (concrete experience, reflective observation, abstract conceptualization, and active experimentation).
- Attending to the holistic nature of the learning process, the coaches' feelings, perceptions, thoughts, and actual behaviors are strategically focused on throughout the coach education module.
- Transactions with the real-world coaching environment are approached through the use of take-home critical-reflection exercises.
- Opportunities are provided for coaches to develop individualized action plans recognizing the individualized nature of learning and knowledge production.

Equally important to the empirical grounding of coach education is the need for evaluation. Using Qualters (2010) model for evaluating learning within experiential activities, it is recommended that future evaluation efforts assess coach learning at the input, environment, and output stages. Consistent with the first tenet of Kolb's (1984) experiential learning theory—learning is a process—it is expected that coaches' learning is not limited to the 4-hour module session. Instead it is expected that coaches will continue to engage with the material and issues



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covered in the educational module through future coaching experiences. Accordingly, when evaluating the effectiveness of the “Empower+” coach education module, a long-term and ongoing evaluation scheme may be most appropriate.

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Author's Note

Ashley E. Stirling is with the Faculty of Kinesiology & Physical Education at the University of Toronto. Correspondence concerning this article should be addressed to Ashley.stirling@utoronto.ca

