Abstract
The field of sport coach development has changed considerably in the last decades and everything indicates that, in an increasingly volatile, uncertain, complex, and ambiguous world (VUCA world), many other changes will take place. It seems increasingly likely that ways will have to be found to harmonize on-the-job learning with the formal coach education programs from which qualifications are derived. In an attempt to analyze the present and to address some directions for the future of sport coach development research and practice, this insight paper presents the summary of a series of conversations with one of the researchers who has greatly influenced the development of sport coaches over the past 30 years, Professor Pierre Trudel.

Keywords: Sports Coaching; Coach Education; Coach Learning; Workplace Learning.
INTRODUCTION

How sports coaches learn to coach has been an area of research for many years with a marked increase in the number of publications over the past two decades (TRUDEL; MILISTETD; CULVER, 2020). As we live in a world that allows rapid access to a large amount of information, the active or shelf life of ‘evidence’ is becoming shorter and shorter. Therefore, we can ask ourselves: To what extent can past research on coach development be useful to better understand and nurture coach development now and in the future? In an attempt to begin answering this question, this insight paper a summary of a series of conversations with Dr. Pierre Trudel, a professor emeritus at the University of Ottawa, Canada. Pierre is one of the leading international researchers in the area of sports coach development. In addition to sustained productivity in terms of publications and conferences, he has also supervised or co-supervised doctoral students who are becoming references in the field of sports coaching. We can cite people like Wade Gilbert, Diane Culver, Martin Camiré, Kyle Paquette, and Bettina Callary.

The conversations were guided by Michel Milistetd (the author) during his sabbatical leaving hosted at the University of Ottawa in the first semester of 2020. Due to the COVID-19 pandemic, all the conversations occurred through an online communication platform (Zoom) and the Dr. Pierre Trudel, consented to publish them. Michel has developed a strong research collaboration with Pierre since his first visit to the University of Ottawa in 2014. The partnership between Michel and Pierre helped to reveal the coaching and coach education structure in Brazil through the publication of several articles in the last 6 years. During this period Michel established expertise in the coach development field, being involved in several national and international initiatives such as consultant in national sports federations, member of the International Council of Coaching Excellence (ICCE) expert workgroups, and participant on the Nippon Coach Developer Academy (Japan). The last two organizations are concerned to improve coaching and coach development globally.

In an attempt to situate Pierre’s perspective and mainly address discussions among theorists and practitioners of the new possibilities of coach development in the XXI century, this paper has four key moments: the biography of Pierre Trudel, the best way to learn how to coach, the influence (or absence) of scientific research in the development of sport coaches, and the development sport coaches in the future.
PIERRE TRUDEL’S BIOGRAPHY

Michel – Pierre, can you say a few words about your childhood before telling us about your university learning journey.

Pierre – I can say that I am a typical French Canadian from Québec, Canada. I grew up in a very small village, 60 km from Quebec City. I am the third in a close-knit family of eight children. My parents sold the family farm when I was 13 and after that, my dad worked as a lumberjack.

Michel – I imagine you were introduced to work at a very young age.

Pierre – In fact, each child had chores assigned to him or her, but my parents always valued education which subsequently allowed me to register to complete a bachelor’s degree in Human Kinetics, at Laval University.

Michel – Can you specify during which years you did your university studies?

Pierre – My baccalaureate was between 1976-1979, my master’s degree between 1980-82, and my doctorate between 1982-1987; all at Laval University thanks to exceptional researchers in sport sciences and particularly in sport pedagogy.

Michel – How would you describe this 10-year experience as a university student?

Pierre – It was a mix of rich learning opportunities both inside and outside the university. What I learned in my classes has often been applied in coaching contexts. As a typical Canadian boy, I was fascinated by ice hockey. So, I coached a very competitive youth hockey team; I was in charge of a summer hockey camp; I had my own consulting business, developing coaching programs and supervising youth sport coaches; I was trained and worked as a coach developer; I even worked for a professional hockey team, taking statistic during games and analyzing videos for the coaching staff.

Michel – Most of these experiences are closely related to coaching and learning how to coach. What about your graduate studies?

Pierre – All related to coaching and coach development. For my master’s degree, I used a systematic observation instrument to assess the behaviors of coaches and players during ice hockey training sessions. The main finding was that quality of coaching was low as well as the motor engagement of the players. Based on these results, I embarked on a doctoral study in which I developed and tested an intervention to help coaches apply a self-supervision approach. In short, the coaches had to reflect on the quality of the learning opportunities offered to their players during the last training session, to prepare the next training session.
The participating coaches appreciated their experience, and the self-supervision approach was slightly modified for other projects when I started my career as a university professor.

Michel – I think you spent your entire career at the University of Ottawa. Am I right?

Pierre – Yes. The School of Human Kinetics was looking for someone with a background in sport pedagogy, to teach courses at the undergraduate level and to develop a research program at the graduate level. So, I got in 1987. During my early years, I conducted studies with colleagues and graduate students on the violence in ice hockey, examining the behaviors of different actors – athletes, coaches, officials, parents, and administrators – and developing interventions to make the game safer. Gradually, we extended our research to coaches of different sports, and thanks to research grants, we were able to conduct studies on topics such as the coaches’ reflective practice, the development of coaches’ communities of practice, the learner-centered teaching approach in formal coach education programs, and how coaches learn and teach life skills, to name a few.

Michel – During this period, you were involved in different organizations that promote the development of coaching, weren’t you?

Pierre – I really enjoyed being the Chairman or Co-chairman of the research committees of the Coaching Association of Canada and the International Council for Coaching Excellence because it gave me the chance to be exposed to what was going on in research around the world. At that time, I was editor or associate editor of various scientific journals, and I participated in the organization of a few national and international conferences. One of my last learning experiences was the project I did for the Canadian Olympic Committee, titled ‘The Rio Games as a Learning Environment’. The objective was to better understand the challenges faced by the different actors surrounding the athletes and to suggest ways to optimize the interactions between the different groups.

Michel – After almost 30 years at the University of Ottawa, you have decided to retire.

Pierre – I would say active retirement. I felt pressure to occupy administrative positions when my interests were more to pursue my personal development and continue my work of supporting university professors and high-performance sports coaches in their career development. So, in 2016, I decided to quit my position as a university professor/researcher and to become a consultant.

THE BEST WAY TO LEARN HOW TO COACH
Michel – Pierre, the studies over the past 20 years have clearly shown that sport coaching is complex, coaches learn from different sources of knowledge, and the relative importance of which depends on many factors. Based on your experience as a university professor, researcher, and consultant in the field of sports coaching, if we want to help coaches to be better coaches, what should we do?

Pierre – You are right, coach learning is very idiosyncratic. In my perspective, to support coach development, we can use theories or conceptual frameworks to provide guidance instead of trying to convince others that our pre-set training program is the best on the market. Personally, I like Peter Jarvis’ theory of ‘lifelong learning’. The expression ‘learning from the cradle to the grave’ fits well with coaches’ development. Studies have indicated that for many coaches, learning to coach begins long before their first coaching position. The time spent with their parents helps develop the values that will shape their coaching philosophy, and their athletic experiences provide examples of what to do or not to do as a coach. These pre-coaching career learning situations, while unintended, are part of the coach’s biography and will influence not only the coach’s behaviors but also, based on Jarvis, how the coach will approach future learning situations. When coaches retire, they often stay in the sport as mentors or sports administrators.

Michel – You just mentioned future learning situations, are you talking about the different coach education programs?

Pierre – Coach education programs are and always will be a key piece of the puzzle because, through them, coaches obtain their certification, and organizations have some control or at least a list of who is certified. But in a lifelong learning journey, certification is nothing more than an episodic learning experience; it attests that in the distant or recent past, a coach attended a training program and might or not had been evaluated. During their lives, coaches are exposed to many learning situations, but they are the ones who ultimately decide their level of participation.

Michel – Based on my experience working in different programs in university and sports federations contexts, some coaches prefer to stay close to their comfort zone and are reluctant to explore new ways of doing things while others enjoy experimenting and acting on the disjuncture between what they actually know and what they need to know. It seems to me that using the ‘lifelong learning’ perspective makes the development of coaches more complex?
Pierre – Yes, the development of coaches is complex if we recognize that it is not a linear process where specific content is divided and taught according to several levels, whether level 1 to 4, or beginner, intermediate and advanced levels. If we focus on coaches as learners, rather than on the knowledge and skills that an ‘ideal’ coach should have, we will be able, without reducing the complexity, to at least better define and appreciate the learning process. There are many ways of looking at learning and personally, I find it useful to consider three modes of learning: adaptive, generative, and transformative. It is important to keep in mind that each of these learning modes is important, can be accessible at any moment during the learning journey, and the boundaries between them are sometimes blurry. First, about the adaptive learning mode, coaches often say ‘we learn by doing’ or ‘we learn by trial and error’. This mode of learning is incidental and unplanned. Coaches, like everyone else, have routines and personal ways of doing their job. When faced with a new situation that is not too discomforting, they can contact a colleague or go to the Web to get some information and then adapt what they usually do. This adaptive learning mode is far from negligible, but unfortunately is little recognized by researchers and coach education program developers and administrators.

Second, we have the generative learning mode which is purposefully getting new knowledge and skills to be better at what we are doing. For sports coaches, this necessary information is accessible in two different contexts: off-the-job and on-the-job. Learning off-the-job refers to the variety of coach education programs and formal workshops. These learning activities are deliberate interventions structured by others to teach coaches about coaching. In this generative and directed mode of learning, the assumption is that coaches will be able to transfer what they have learned in the classroom to their coaching practice, hence the expression: a just-in-case approach. The push for sports coaching to be recognized as a profession and the responsibility to provide athletes with quality coaches have contributed to the development of these directed learning activities.

Michel – That’s very interesting. Does learning on-the-job refer to learning in the workplace?

Pierre – I will say ‘purposeful workplace learning’ to stand out from the adaptive learning in the workplace. As you know, globalization and new technologies have changed our relationship to knowledge. We now have easy access to a large amount of information by reading books, chatting with colleagues or experts, researching on the Web, and so on. However, this information changes rapidly and we do not always know if it is of good quality. In this flow of good and bad information, coaches must, more than ever, deliberately reflect on
what they do or not do, and then select or create the most appropriate sources of knowledge. In this generative and self-driven learning mode, we assume that the coaching environment is structured in such a way that it offers learning opportunities to all stakeholders. Because coaches seek information to define and solve current coaching problems, it can be seen as just-in-time learning.

Michel – How does the transformative mode of learning differ from the generative mode which seems to cover most of what is the development of coaches?

Pierre – The transformative mode of learning implies a fundamental shift in the way coaches work and interact in their coaching environment. The key element here is critical reflection. As coaches critically reflect on their coaching practice, they will develop a new understanding of themselves and their coaching approach. This is not an easy task as it might mean going against deeply established norms, despite feeling the pressure to follow the parade. This is why only a few coaches use the transformative learning mode.

THE INFLUENCE (OR ABSENCE) OF SCIENTIFIC RESEARCH IN COACHES’ DEVELOPMENT

Michel – There is something that intrigues me. While coach education programs, the generative and directed mode of learning, had the upper hand a few years ago, they are becoming complementary to other forms of learning which depend largely on the motivation of the coaches. Considering that many sports coaches have little access to or seem to show a little interest in reading studies on sport coaching, does this mean that the scientific literature will have an impact that will be even more negligible in the future?

Pierre – Michel, you are referring to the unsolved dilemma: Researchers and practitioners working in solo and in parallel. During my 30 years as a researcher, I have attended many conferences and in most of them there was a presentation with a title like ‘Bridging the gap between theory and practice’. So far, we have not had much success in getting researchers and practitioners to work together because the content of the discourse was often limited to accusing each other of bad faith. On the one hand, researchers are not accessible and prefer the comfort of their ivory towers and, on the other hand, coaches do not like to read and prefer to perpetuate traditions.

Michel – This seems fairly accurate. I’m currently living this dilemma working with sport clubs and sports federations in Brazil. Any suggestions for solving this eternal problem?
Pierre – I think that sport coaching in itself has evolved to such an extent that coaches and sports federations or clubs have no other choice but to include the science of coaching. Gone are the days when the role of researchers was to develop knowledge to then be used by coaches. This ‘technical rationality’, to use Schön’s terminology, is counterproductive at a time when coaching is increasingly complex, and when coaches must constantly react quickly to new events. Under these conditions, researchers and practitioners should work together and become co-creators of new knowledge. In this regard, the concept of ‘social learning spaces’ suggested by Etienne Wenger-Trayner and Beverly Wenger-Trayner can be useful.

Michel – That’s a good point. In 2019, I participated in the BEtreat workshop organized by Etienne and Beverly Wenger-Trayner in Portugal. The authors explained that in a social learning space, the different actors are recognized for the specific knowledge that each brings, the power differential is minimal, and everyone should feel safe to express themselves. Considering that sports organizations usually are pressured by results, you believe that is possible to create a safe learning environment for coaches?

Pierre – It is hard to say yes or no. The sports organizations have different structures and each one has their own culture. The readiness for the learning of the organization will depend on many factors according to Sessa and London. But I believe that it is possible. A social learning space can have a very short lifespan or extend over a long period, can be used in generative and transformative modes of learning as the interactions can take the form of a face-to-face conversation, a discussion over the phone, a chat on the Web, etc. At the same time, participation in an effective social learning space is demanding and even risky, because the actors will not only share what they know but also will expose what they do not know. In sport, especially in high-performance, acknowledging that you do not know something is unusual.

Michel – Could you explain how the social learning spaces can promote better integration of the scientific literature with the development of coaches?

Pierre – As mentioned before, sports coaching is getting more and more complex and for this reason, there are now many different specialists such as sport psychologists, strength and conditioning coaches, physiotherapists, data analysts, to name a few. Each of these specialists can now bring their scientific knowledge to the social learning spaces creating learning opportunities that coaches and administrators did not have access to in the recent past.
Michel – I can easily imagine that social learning spaces, like most situations based on human relations, vary in terms of quality. What can promote or hinder social learning spaces in which specialists and practitioners share and co-create knowledge?

Pierre – Specific to this situation I will mention one element: the status of the actors. For example, most specialists are consultants, that is, they work for different teams or organizations which compete for their availability. In these working conditions, specialists can hardly afford to spend the time required to really get involved with a team to develop, with the coach and the other specialists, solutions to specific coaching issues. We seem to be creating a situation where specialists work solo, which means that the science of coaching is more present than before, but in separate pieces rather than complementing each other. Thus, to increase the learning potential of the social learning spaces, they need to be encouraged and nurtured.

Michel – Considering that sports federations and clubs are the ones who hire and fire coaches and consultants, should they be more involved in their development?

Pierre – Yes; but this will require a major change in the sports structure, and I am not sure we are ready for that change.

Michel – Unfortunately, I agree with you. Unlike researchers in the field of business research who have studied what makes an organization a learning organization⁶, sports coaching researchers have often limited their studies on the individual: how to train coaches or coaches as leaders. Thus, studies are missing on what is an effective ‘learning sports organization’ and on how to help create one.

THE COACH DEVELOPMENT IN THE FUTURE

Michel – In a perspective where sports federations or clubs have more control over the development of their coaching staff, what can you say about the future of coach development?

Pierre – It’s a difficult question because we cannot predict the future. We only can propose possible scenarios that may or not influence alternative futures⁷. Based on what we have discussed so far: Jarvis’ lifelong learning framework, the need to keep learning in this more complex world, the three modes of learning, and the social learning spaces; my vision, at the moment, is this. First, the concept of ‘coaching staff development’ will gradually emerge and add to the personal development of individuals. For example, teaching and evaluating a coach on his/her ability to develop an annual training plan is outdated. Such a task emphasizes not
only the importance of individual knowledge but the need to negotiate that knowledge with others.

**Michel** – This will require that the people involved work together.

**Pierre** – Right, and this brings me to my second point. The importance of having the right people, which depends on the selection criteria during the hiring process, especially at the high-performance level. Choosing a foreign coach on the basis that he/she has a good winning record, but who is reluctant to share his/her knowledge, will constitute an obstacle to the development of the organization. Organizations should therefore seek out people who are not afraid to share their knowledge, who can critically reflect on their practice, and who are comfortable working under and through uncertainty.

**Michel** – Suppose that an organization has what you call ‘the right people’, what will be different from what is being done now, which is to prepare training courses for coaches?

**Pierre** – Point number three: In a learning organization, the structure is such that the working environment constantly promotes learning. Let’s get back to our three modes of learning. In most countries, although coaching is not a profession, coaches must be certified. In general, this certification process is under the responsibility of National Governing Bodies (NGB) which have developed a variety of coach education programs, some of which, for financial reasons, are conducted for multiple sports. For many coaches, these generative directed learning activities feel like ‘adding learning to work’, with the content that does not match the needs of the coaches. Fortunately, in the past decade, we have seen examples of strong collaborations between sports federations or clubs and the NGBs to develop and deliver programs with a learner-centred teaching approach, instead of a content/instructor-centred teaching approach. We have even seen innovative learning opportunities where coach developers went into the coaching context to teach and work with coaches instead of coaches leaving their environment for the classroom. These learning situations promote ‘embedding learning within workflows’.

It is important to also recognize that this collaboration is essential to have impactful courses aimed at the prevention of, for example, concussions and unethical behaviors.

**Michel** – Although I can see how a sport learning organization can be proactive through better collaboration with the NGBs to develop training programs, it is not clear to me how a sports federation or a club can influence the adaptive, generative self-driven, and even the transformative mode of learning. Could you tell me how do you see that?
Pierre – As mentioned before, how an organization is structured will facilitate or limit the occasions for the employees to learn while they work. This can be referred to as ‘extracting learning from the workplace’. Providing the right equipment to facilitate easy access to information, or work opportunities between people of different expertise will, for example, increase the ability of the coaching staff to constantly adapt their work and be independent. By carefully selecting and bringing people together and giving them specific goals to achieve, an organization creates working groups. The desire to learn to collaborate better in discussions and the openness to learn from others are very self-driven, but these social learning spaces should not be seen only as a place of development for individuals, but also as space where a group, as an entity, can and should learn and develop. Finally, as the transformative mode of learning implies drastic changes, organizations will need to be supported by people with expertise in organizational learning. Changes can be in individual knowledge or skills, in the group’s capacity to work together and grow to achieve specific goals, and even in the vision and missions of the organization.

Michel – It seems to me that we are just at the beginning of the transition from the coach development approach to the coaching staff development approach, and we still have a lot to learn. Thank you so much Pierre for adding all these new concepts and helped me to reflect on what is coming in the research and practice of coach development.

FINAL CONSIDERATIONS

The desire to present this conversation with Professor Pierre Trudel not only lies on his impact on the coach development field in the last decades but considering his vision of the future. Several concepts in the coaching research field, such as lifelong learning, communities of practice, personal learning coach, learner-centred teaching, and others, were established by Pierre’s research group years before becoming common terms in the coach development research and practice. Therefore, the thoughts of Pierre are provocative in a direction to consider the workplace and the sports organizations as the proper situs of learning, and they should take the responsibility to support coaches’ development in an ever-changing world.

Currently (at a time of writing this paper), the COVID-19 pandemic has forced many organizations to adapt quickly and change the way they are training coaches (e.g. online courses, online meetings, etc.). However, the generative mode of learning it’s only one way to learn how to coach. The efforts towards becoming a learning organization should recognize
the distinct types of learning (adaptive, generative, transformative) and promote a safe environment where learning can be nurtured considering the organization's demands, culture and their own view of the future.

Therefore, future studies are needed to describe the culture of learning in sports organizations or the perspective of different stakeholders regarding the importance of learning. Case studies are also important to explore how learning on-the-job happens for sports coaches embedded in a same organizational culture, addressing new possibilities to promote social learning spaces. Finally, the value of learning in co-participation projects (researchers and practitioners) towards coach development is pivotal to understand the importance of continuous learning in organizations.

REFERENCES

TRUDEL, Pierre; MILISTETD, Michel; CULVER, Diane. What the empirical studies on sports coach education programs in higher education have to reveal: a review. *International sport coaching journal*, v. 7, n. 1, p. 61-73, 2020.

NOTES

The following are notes to support or complement Pierre’s comments:


3. Modes of learning that can happens in individual, group our organizational levels. These modes of learning have been adapted to the sport coaching contexts from the work of Sessa, V. I., & London, M. (2015). *Continuous learning in organizations: Individual, group, and organizational perspectives*. Psychology Press.


8. Point number three has been developed based on the work of Jane Hart:

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