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## REVIEW PAPER

# PARASPORT COACH DEVELOPMENT: EVIDENCE FROM THE CANADIAN CONTEXT

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### Abstract

*Despite the exciting evolution of the Paralympic movement as it relates to high performance Parasport, there is concerning evidence concerning the many barriers people with an impairment have to overcome to participate in sports. Access to knowledgeable coaches is a barrier that permeates both high performance sports as well as grass roots. The purpose of this paper is to introduce the reader to disability sport coaching in Canada. A brief historical overview of the Canadian context referring to people living with an impairment situates the readers. The multiple layers of coaching are presented and a summary of recent studies that have examined Parasport coach development from the perspective of Canadian Parasport coaches. The paper uses the concepts of formal, nonformal, and informal learning situations to frame the literature and provide the readers with an overview of the subject. Based on the broader coach development literature, the paper offers some recommendations for Parasport coach developers.*

**Key words:** *Disability sports, coach learning and development*

### Introduction

Over the past two decades the disability sport movement has been growing steadily (Banack, Sabiston, & Bloom, 2011; Tawse, Bloom, Sabiston, & Reid, 2012). One of the most impressive examples relates to the According to Tas the interest of the public for the event. Spence revealed the cumulative opping (2012) the Games exceeded the local committee expectations, selling 2.7 million tickets, surpassing by 900,000 the previous Games in Beijing. To provide a sense of the progression, the 2004 Paralympic Games in Athens sold 850,000 tickets (Eccles, 2012).

Moreover, for the first time in the history of the Paralympic Games the tickets sold out even before the start of the Games (Eccles, 2012; Hirst, 2012). These numbers elevated the Paralympic Games from second-tier status, without adequate support and funding in 1996 (Le Clair, 2011), to the third sporting event in the world behind the Olympic Games and the FIFA World Cup of soccer (Spence, 2015). In Canada, the worldwide increase of interest and popularity brought more funding opportunities to Parasport federations (e.g., Own the Podium funding for Paralympic sports).

Despite the exciting evolution of the Paralympic movement as it relates to high performance Parasport, there are concerning statistics regarding participation at the grass roots. Within Canada, a 2012 Standing Senate Committee on Human Rights report (Jaffer & Brazeau, 2012) indicated 37 percent of children and youth with disabilities never take part in organized physical activities compared to 10 per cent amongst those without disabilities. These alarming numbers are linked to the many barriers prohibiting people with a disability from participating in sport ranging from structural and environmental to social and personal (Canada Heritage, 2006; Shikako-Thomas & Law, 2015). Not surprisingly the lack of specialized coaches is one of these barriers. Based on this reality, the purpose of this paper is to introduce the reader to the disability sport context in Canada and to provide an overview of recent studies that have examined Parasport coach development from the perspectives of coaches in this country. The paper concludes with some recommendations for Parasport coach developers.

### ***Canadians with Disabilities***

According to Statistics Canada (2012), people with disabilities represent approximately 14 per cent of the 35 million Canadians. Canada was the first country to award equal opportunities for persons with a disability in its 1982 Charter of Rights and Freedoms (Valentine & Vickers, 1996) which in theory would guarantee equal rights for all Canadians including the provision of government services such as the access to sports and recreational activities (Jaffer & Brazeau, 2012). However, only three percent of Canadians with a disability compared to 30 percent of able-bodied Canadians are enrolled in sport organizations (Canadian Heritage, 2006). The acknowledgment of people's rights is just the first step in achieving substantive equality. In order to make real changes, proactive steps need to be taken to minimize the barriers that create social disadvantages with the goal of making society more inclusive. Throughout time disparities have occurred, for instance the Canadian Sport Policy written in 2002 (Canadian Heritage, 2002) referred solely to able-bodied sport. Only in 2006 did Canada release a complementary policy specific for people with disabilities (Canadian Heritage, 2006). The 2002 omission was

corrected with the release of the most recent Canadian Sport Policy, which calls for barrier-free and relevant sport programming customized for “traditionally underrepresented and/or marginalized populations to actively engage in all aspects of sport participation” (Canadian Heritage, 2012, p. 10).

### ***Coaching Parasport in Canada***

As stated above, one of the barriers identified by the Canadian Policy on Sport for Persons with a Disability (Canadian Heritage, 2006) relates to the area of coaching in disability sport. The need to develop coaches is not novel. In 1986, the US Committee on Sports for the Disabled designated coaching a research priority (DePauw, 1986). More than a decade after DePauw highlighted the need for studies in coaching Parasport, Reid, and Prupas (1998) found that only five data-based articles on the topic had been published. Later, DePauw, and Gavron (2005) published a book on disability sports that continued to emphasize the need for studies and programs to develop coaches. Looking at the articles published after the year 2000 within Parasport coach development the contribution of Canadian researchers is noticeable. It is the Canadian perspective that will guide this chapter.

In able-bodied sport, the number of participants is such that we can often draw typical profiles of coaches at each of the recreational, developmental, and elite levels (Trudel & Gilbert, 2006). In Parasport, it is common to see a coach training athletes ranging from children to adults and recreational to elite levels, all in the same session (McMaster, Culver, & Werthner, 2012; Sawicki, 2008). To add to the complexity of the Parasport coach’s role, the wide range of disabilities within the same sport (or event) requires coaches working with these athletes to not only acquire the sport specific and general coaching knowledge common to all coaches, but to also understand each athlete’s specific disability and its influence on development and/or performance (Cregan, Bloom, & Reid, 2007; McMaster et al., 2012; Tawse et al., 2012). For instance, within disability sport two additional broad categories of classification exist: medical (i.e., type and level of disability) and functional (i.e., muscle strength, range of motion, co-ordination, and balance). Athletes compete against others with different disabilities but similar physical function (Athletics Canada, 2012; DePauw & Gavron, 2005). According to the IPC (2013), at the London 2012 Paralympic Games there were 29 gold medal winners for the individual 100-meter races, attributed by gender and class type.

The disability aspect adds a number of coaching challenges specific to Parasport (Burkett, 2013; Hanrahan, 2007). Considering that at the core of Parasport is the ability to adapt the rules, training, and equipment to allow for participation and fairness, a question that has intrigued researchers was:

How are coaches learning to work in Parasport? In order to provide the context for this question we will examine the literature on coach development in able-bodied sport. In support of this, Cregan and colleagues (2007) argued that a Parasport coach needs to train the athlete not the disability. This and the lack of supporting evidence related to Parasport, justifies a review of coach development in general.

### ***Coach Development***

Able-bodied sport coaching as an academic discipline has blossomed since the 1990s (Rangeon, Gilbert, & Bruner, 2012). New coaching journals have appeared such as the *International Journal of Sports Science and Coaching*, and just recently, the *International Sport Coaching Journal*. The research literature on coaching has shown that coaching is complex and it has been suggested that a one-size-fits-all approach is ineffective (Abraham & Collins, 1998; Cushion, Armour, & Potrac, 2003). This has stimulated efforts to understand how coaches are learning to solve issues that arise in their daily practices (Gallimore, Gilbert, & Nater, 2013; Gilbert & Rangeon, 2011). Researchers who sought to understand how coaches learned to become coaches found idiosyncratic pathways (Werthner & Trudel, 2006) in which the coaches learned from their athletic experience, from coach education, coaching courses and clinics, mentoring, informal learning situations, and learned by doing (Jones, Armour, & Potrac, 2003, 2004; Lemyre, Trudel, & Durand-Bush, 2007; Saury & Durand, 1998; Wright, Trudel, & Culver, 2007). A piece of research that shaped how coach development researchers have classified these many learning situations was written by Nelson, Cushion, and Potrac (2006; working from the seminal work of Coombs and Ahmeds, 1974). Nelson and colleagues (2006) proposed coaches learn through formal, non-formal, and informal learning. Next, we will look at the Canadian context of coach development through the lenses of these three learning situations, and highlight the few studies examining Parasport coaches in Canada.

### ***Formal***

Coombs and Ahmed (1974) defined formal learning situations as those in which learning occurs in an “institutionalized, chronologically graded and hierarchically structured education system” (p. 8). Formal educational programs follow guidelines such as a standardized curriculum and often offer coaches a certification. The Coaching Association of Canada (CAC) is the national sport governing body responsible for coaching education in Canada. CAC has operated the National Coaching Certification Program (NCCP) for upwards of four decades and has trained more than 1 million coaches (Werthner, Culver, & Trudel, 2012). Werthner and colleagues (2012) suggested NCCP trains around 50,000 coaches from

about 67 sports each year. Coach development agents from around the world have considered the NCCP a model for formal coach education. In 1997 the CAC did a thorough review of their programs, shifting thereafter from an approach that prioritizes ‘what a coach knows’ compared to ‘what a coach can do’. Through this evolution the NCCP moved from a knowledge based program (Levels 1 to 5, based on a novice to expert continuum), to a competency-based program (three streams, instruction, competition, and instruction) that aims to develop the abilities required to coach specific groups of sport participants (Werthner et al., 2012). The NCCP’s five core competencies are: Valuing, interacting, leading, problem-solving, and critical thinking. Coach training within the NCCP involves a theory component often delivered in a multisport setting, and a sport specific component. Currently, only half of the 27 NCCP partner sports providing a Paralympic program have developed a module of sport-specific training for coaches of athletes with a disability (Taylor, Werthner, & Culver, 2014).

Coach education programs have sparked different opinions regarding their value to coach development. Werthner and Trudel (2009) looked at 15 Canadian Olympic coaches’ learning pathways and found that many cited formal coach training as useful to their development. Erickson, Bruner, MacDonald, and Côté (2008) studied 44 coaches from various sports found that NCCP courses were the third most frequently reported source of knowledge behind ‘learning by doing’ and ‘by interacting with others’. For coaching athletes with intellectual disabilities, MacDonald, Beck, Erickson, and Côté (2015) mentioned the shortfalls of NCCP courses as being too generic and not addressing the needs of Special Olympic coaches. For Parasport, Duarte and Culver (2014) had similar findings as their participant stated the sport specific module was not tailored to athletes with a disability. On a more positive note, Taylor, Werthner, Culver, and Callary (2015) mentioned the new design of the NCCP to be conducive to reflection, an important ability to coaching.

### ***Nonformal***

Nonformal learning situations may include coaching conferences, seminars, and workshops. They are usually guided, voluntarily attended, and lie outside of formal education systems (Mallett, Trudel, Lyle, & Rynne, 2009). Nonformal situations are often opportunities for coaches to learn about a specific coaching topic of their choice. Considering that most coaches are volunteers, only a few of them devote time and money to such clinics (MacDonald et al., 2015; Nelson et al., 2006). Nonetheless, coach development administrators in Canada have recently embraced the concept of mandatory continuous professional development in order to maintain certification (e.g. Coaching Association of Canada, n.d.). This implies that

sport organizations will need to consider offering continued learning opportunities to their coaches at all levels (club, regional, national, international). While coaches in the Erickson et al. (2008) study voiced a preference for nonformal learning situations, they remarked that such opportunities are sparse. In Parasport, the participant in Duarte and Culver's (2014) research mentioned that early in her disability coaching career, she was fortunate to learn through numerous workshops that were provided by the clubs where she worked. While further evidence for nonformal learning opportunities in Parasport is lacking, Duarte and Culver's disability coach, based on her experience, has developed sport specific workshops for novice coaches in her Parasport.

### ***Informal***

Informal learning situations are linked to the concept of self-directed learning. The coach's desire to learn/solve a problem can spark a search for information/solution through books, videos, Internet sources, and discussions with others (Nelson et al., 2006; Winchester, Culver, & Camiré, 2012); mentoring (Nelson et al., 2006; Werthner & Trudel, 2009), and learning through personal experiences (Nelson et al., 2006; Wright et al., 2007). A number of studies have found that coaches emphasize the impact of informal learning experiences on their development (Cushion et al., 2003; Erickson et al., 2008; Lemyre et al., 2007; Mallett et al., 2009; Wright et al., 2007). While informal learning experiences encompass a variety of potential processes, interactions with others have been cited by coaches in able-bodied sports as an important means of learning (Erickson et al., 2008). In Canada, interactions with others seem to be of particular importance to coaches who coach athletes with disabilities (Duarte & Culver, 2014; McMaster et al., 2012). Recently, a study with 45 Special Olympic coaches cited learning by doing to be the most important source of knowledge (MacDonald et al., 2015). However, when asked about what would be the ideal sources of knowledge in addition to experiential learning, they referred to a combination of support from others such as coaches and mentors. The few published studies on Parasport coach development have highlighted the importance of learning from others (social learning) in a slightly different way than in able-bodied coaches (e.g., Cregan et al., 2007; McMaster et al., 2012).

Parasport coaches learn from mentors, peer coaches, their integrated support teams (ISTs), and others (Cregan et al., 2007; McMaster et al., 2012). All five coaches studied by McMaster et al. (2012) reported being mentors or mentees. Taylor et al. (2014) mentioned the mentorship of a Parasport coach by a former Olympic level coach. Duarte and Culver (2014) found many mentors in the story of a parasailing coach; interestingly

these mentors were not necessarily linked directly to the sporting context in which she coached, being, for instance, an administrator at an elementary school and an occupational therapist. Moreover, in able-bodied sports a novice coach will likely learn from a more experienced one, whereas within Parasport some coaches start with their first para athletes after having a lot of experience with able-bodied sport. Thus, Davey (2014) mentioned an experienced coach in able-bodied sailing who was able to learn from novice sailing coaches who were more knowledgeable than he about the Parasport context. Contrary to research that suggested coaches are not willing to share information with rival coaches (e.g., Lemyre et al., 2007; Wright et al., 2007), Duarte and Culver (2014) noted numerous interactions among an adaptive sailing coach and coaches from different sailing clubs. Taylor and colleagues (2014) mentioned interactions between the coach and peers from other disability sports. Tawse et al. (2012) found wheelchair rugby coaches engaging in constant interactions with IST members. Taylor et al. (2014) suggested the use of a physiologist by her elite coach whereas Duarte and Culver (2014) found the use of an occupational therapist by a developmental coach to address unique para athlete demands. Taylor et al. (2014) also mentioned collaboration with a university professor who taught adapted physical activity. Moreover, within Parasport others were shown to play relevant roles; these included the athletes, athletes' family members (Cregan et al., 2007; Tawse et al., 2012), and coaches' family members (Duarte & Culver, 2014; Taylor et al., 2014). Cregan et al. (2007) studied Paraswimming elite coaches, suggesting that athletes contributed equally to the coaching process, with the coach being the expert on technique, and the athlete being the expert on his or her own disability.

Besides considering from whom exactly coaches learn, a second social learning consideration relates to the contexts where social learning might occur. Duarte and Culver (2014) and Davey (2014) reported that at development sailing competitions (regattas) there is a tradition of pairing coaches and athletes from different clubs. Davey suggested that competitions aimed to be cooperative environments and seemed to promote knowledge construction of both coaches and athletes. Taylor et al. (2014) noted the mentorship that occurred at a camp initiated by the mentee.

## **Conclusions**

As noted, coaching is a complex activity. The literature review above portrays Parasport coaching as being even more complex than able-bodied coaching, with relatively fewer formal and nonformal learning opportunities offered specifically for Parasport coaches. In this conclusion we will offer some ideas for Parasport organizations about moving forward

with Parasport coach development. For this we will refer further to the literature on able-bodied sport coach development and a study that examined what characteristics Parasport athletes say they want to see in their coaches. These suggestions build on the current disability sport coaching learning context in which the main source of knowledge of Parasport coaches comes from informal learning.

Recently, Trudel, Culver and Werthner (2013) recommended the creation of optimal learning environments in the hope of offering coaches meaningful learning opportunities. While the three learning situations (i.e., formal, nonformal, and informal) individually provide coaches with different avenues to development, using them in conjunction with each other could provide unique learning opportunities and magnify their potential impact. For instance, coach educators might structure a formal coach education module to present coaches with ideas on how to explore social learning skills. Interpersonal skills have been proposed as one of the three pillars of coaches' knowledge (i.e., interpersonal, intrapersonal, professional; Côté & Gilbert, 2009). The content of such a module could include ideas to nurture learning through interactions with others. Activities would help coaches understand how to optimize one's network, and build and sustain communities of practice. Sawicki (2008), an elite Parasport coach, suggested cross-context partnerships as a way to develop better coaches. Potential social learning spaces should consider linking high-performance coaches with development coaches to share knowledge, or even orchestrate Parasport coaches working with able-bodied sport coaches (Sawicki, 2008). Davey (2014) also pointed out the potential benefits of cross-context collaboration for coach development. Both Sawicki and Davey offer examples of how the boundaries between contexts are fertile grounds for knowledge creation (Wenger, 1998). In addition to developing interpersonal knowledge, this learning opportunity could allow Parasport coaches to supplement their professional knowledge in areas such as the large variety of disabilities that can reasonably be expected to be found in their athletes. As well, NCCP core competencies such as interacting, problem solving, and critical thinking would be developed.

The need for reflection in Parasport coaching was documented by Taylor et al. (2015) who found that Parasport coaches spent a lot of time reflecting on, for example, how to adapt equipment to fit the needs of their athletes. The ability to reflect is part of a coach's intrapersonal knowledge. No matter the learning situation, the Parasport coaches in the studies presented earlier in this chapter spoke of reflecting with a lens of adaptability, filtering information to best figure out how to apply it to their athletes' specific physical and mental needs, whether these were related to



equipment adaptations, or the adjustment of training programs determined in large part by the specific disabilities. Reflection was often engaged in with others including athletes, family members, and various healthcare experts, each of whom contributed to the co-construction of Parasport coaching knowledge.

Culver and Werthner (2017) asked athletes with disabilities about their ideal coach. The athletes said that Parasport coaches need to enhance certain crucial characteristics for effective coaching. In addition to qualities such as empathy, patience, good communication, adaptability, an understanding of the disability, the athletes stressed the ability to work *with* them. Athletes wanted coaches to engage in on-going conversations: As one athlete said, “Because, I’m doing the sports. I have some idea what is going on. And, I know myself” (Culver & Werthner, 2017, p. 5). Again we see an important need for Parasport coaches to develop their interpersonal knowledge, as well as their professional knowledge. Parasport coach developers should offer workshops in which coaches can try out some of the Parasports that they coach; to sit in a wheelchair and play basketball for example. This would help coaches to better understand the technical and tactical challenges of their athletes as well as to develop their empathy.

A final word is devoted to the promotion of the Internet as a medium for Parasport development. Canada and other large countries face obstacles when it comes to geography. The fewer numbers of Parasport coaches compared to coaches of able-bodied sport, means that interacting with other Parasport coaches face to face is problematic. However, Parasport coach developers could promote social learning spaces using such platforms as Adobe Connect, and Skype. With properly trained facilitators, these platforms can afford cost effective learning opportunities for the development of coaching effectiveness by helping coaches augment their professional, interpersonal, and intrapersonal knowledge.

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## References

1. Abraham, A., & Collins, D. (1998). Examining and extending research in coach development. *Quest*, 50, 59-79.
2. <https://doi.org/10.1080/00336297.1998.10484264>
3. Athletics Canada. (2012). Para classification background [Web pdf]. Retrieved from: <https://www.athletics.ca/files/nationalteamprograms/eventgroups/speedwre/paraclassificationbackground.pdf>
4. Banack, H. R., Sabiston, C. M., & Bloom, G. A. (2011). Coach autonomy support, basic need satisfaction, and intrinsic motivation of Paralympic athletes. *Research Quarterly for Exercise and Sport*, 82 (4), 722-730. <https://doi.org/10.1080/02701367.2011.10599809>
5. Burkett, B. (2013). Coaching athletes with a disability. In P. Potrac, W. Gilbert, J. Denison. *Routledge handbook of sports coaching* (pp. 196-209). London, United Kingdom: Routledge.
6. Canadian Heritage. (2002). *The Canadian sport policy*. Retrieved from: [http://sirc.ca/sites/default/files/content/docs/pdf/2002-the\\_canadian\\_sport\\_policy.pdf](http://sirc.ca/sites/default/files/content/docs/pdf/2002-the_canadian_sport_policy.pdf)
7. Canadian Heritage. (2006). *Policy on Sport for Persons with a Disability*. Retrieved from: [www.pch.gc.ca/pgm/sc/pol/spt/tm-eng.cfm](http://www.pch.gc.ca/pgm/sc/pol/spt/tm-eng.cfm)
8. Canadian Heritage. (2012). *Canadian Sport Policy 2012*. Retrieved from: [http://sirc.ca/CSPRenewal/documents/CSP2012\\_EN.pdf](http://sirc.ca/CSPRenewal/documents/CSP2012_EN.pdf)
9. Canadian Sport Centres. (2012). *No Accidental Champions* (2<sup>nd</sup> ed.). Retrieved from: <http://canadiansportforlife.ca/sites/default/files/resources/No%20Accidental%20Champions.pdf>
11. Coombs, P. H., & Ahmed, M. (1974). *Attacking rural poverty: How nonformal education can help*. Baltimore: John Hopkins University Press.
12. Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching*, 4(3), 307-323. <https://doi.org/10.1260/174795409789623892>
13. Cregan, K., Bloom, G. A., & Reid, G. (2007). Career evolution and knowledge of elite coaches of swimmers with a physical disability. *Research Quarterly for Exercise and Sport*, 78(4), 339-350. <https://doi.org/10.1080/02701367.2007.10599431>
14. Culver, D. M., & Werthner, P. (2017). Voices: para athletes speak. *Qualitative Research in Sport, Exercise and Health*, 1-9. <https://doi.org/10.1080/2159676X.2017.1393004>
15. Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest*, 55, 215-230. <https://doi.org/10.1080/00336297.2003.10491800>
16. Davey, J. (2014). *How do Novice Parasport Coaches Develop Their Knowledge? A Look at the Experiences of Para Sailing Coaches* (Master's thesis). Retrieved from:

- [https://ruor.uottawa.ca/bitstream/10393/30647/3/Davey\\_Jennifer\\_2014\\_thesis.pdf](https://ruor.uottawa.ca/bitstream/10393/30647/3/Davey_Jennifer_2014_thesis.pdf)
17. DePauw, K. P. (1986). Research on sport for athletes with disabilities. *Adapted physical activity quarterly*, 3(4), 292-299. <https://doi.org/10.1123/apaq.3.4.292>
  18. DePauw, K. P., & Gavron, S. J. (2005). *Disability sport* (2nd ed.). Champaign, IL: Human Kinetics.
  19. Duarte, T., & Culver, D. (2014). Becoming a coach in developmental adaptive sailing: A lifelong learning perspective. *Journal of Applied Sport Psychology*, 26(4), 441-456. <https://doi.org/10.1080/10413200.2014.920935>
  20. Eccles, L. (2012, August 21). Final ticket rush for London 2012: Games are just 200,000 tickets away from becoming first ever sold out Paralympics. *Mail Online*. Retrieved from: <http://www.dailymail.co.uk/news/article-2191254/Final-ticket-rush-London-2012-Games-just-200-000-tickets-away-sold-Paralympics.html>
  21. Erickson, K., Bruner, M. W., MacDonald, D., & Côté, J. (2008). Gaining insight into actual and preferred sources of coaching knowledge. *International Journal of Sports Science & Coaching*, 3, 527-538. <https://doi.org/10.1260/174795408787186468>
  22. Gallimore, R., Gilbert, W., & Nater, S. (2013). Reflective practice and ongoing learning: A coach's 10-year journey. *Reflective Practice*, 15(2), 268-288. <https://doi.org/10.1080/14623943.2013.868790>
  23. Gilbert, W., & Rangeon, S. (2011). Current directions in coaching research. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte (RIPED)*, 6 (2), 217-236.
  24. Hanrahan, S. J. (2007). Athletes with disabilities. In G. Tennenbaum & R.C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed, pp. 845-858). Hoboken, NJ: John Wiley.
  25. Hirst, M. (2012, August 13). Paralympic ticket sellout goal. *BBC News*. Retrieved from: <http://www.bbc.co.uk/news/uk-19240972>
  26. International Paralympic Committee. (2013). *Athletics results*. Retrieved from: <https://www.paralympic.org/athletics/results>
  27. Jaffer, M. S. B., & Brazeau, P. (2012). *Level the Playing Field: A Natural Progression from Playground Podium for Canadians with Disabilities*. Parliament of Canada. Retrieved from: <https://sencanada.ca/content/sen/Committee/411/ridr/rep/rep07jun12-e.pdf>
  28. Jones, R. L., Armour, K. M., & Potrac, P. (2003). Constructing expert knowledge: a case study of a top-level professional soccer coach. *Sport, Education and Society*, 8(2), 213-229. <https://doi.org/10.1080/13573320309254>
  29. Le Clair, J. M. (2011). Transformed identity: from disabled person to global Paralympian. *Sport in Society*, 14(9), 1116-1130. <https://doi.org/10.1080/17430437.2011.614768>

30. Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *Sport Psychologist*, 21, 191-209. <https://doi.org/10.1123/tsp.21.2.191>
31. MacDonald, D. J., Beck, K., Erickson, K., & Côté, J. (2015). Understanding sources of knowledge for coaches of athletes with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 29(3), 242-249. doi:10.1111/jar.12174
32. Mallett, C. J., Trudel, P., Lyle, J., & Rynne, S.B. (2009). Formal vs. informal coach education. *International journal of sports science and coaching*, 4(3), 326-334. <https://doi.org/10.1260/174795409789623883>
33. McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability: a look at their learning experiences. *Qualitative Research in Sport, Exercise and Health*, 4(2), 1-18. <https://doi.org/10.1080/2159676X.2012.686060>
34. Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, non-formal and informal coach learning: a holistic conceptualization. *International Journal of Sports Science & Coaching*, 1, 247-259. <https://doi.org/10.1260/174795406778604627>
35. Rangeon, S., Gilbert, W., & Bruner, M. (2012). Mapping the world of coaching science: a citation network analysis. *Journal of Coaching Education*, 5(1), 83-113. <https://doi.org/10.1123/jce.5.1.83>
36. Reid, G., & Prupas, A. (1998). A documentary analysis of research priorities in disability sport. *Adapted Physical Activity Quarterly*, 15, 168-178. <https://doi.org/10.1123/apaq.15.2.168>
37. Saury, J., & Durand, M. (1998). Practical knowledge in expert coaches: On-site study of coaching in sailing. *Research quarterly for Exercise and Sport*, 69(3), 254-266. <https://doi.org/10.1080/02701367.1998.10607692>
38. Sawicki, O. (2008). Reflections on the 2008 Beijing Summer Paralympic Games – A Canadian Paralympic Committee perspective. *Coaches Plan*, 15(3), 37-39.
39. Spence, C. (2015). *Amazing London 2012 Paralympics Marketing Case!*. Retrieved from: <https://www.youtube.com/watch?v=BkEoeGWIJT8>
40. Shikako-Thomas, K., & Law, M. (2015). Policies supporting participation in leisure activities for children and youth with disabilities in Canada: from policy to play. *Disability & Society*, 30(3), 381-400. <https://doi.org/10.1080/09687599.2015.1009001>
41. Statistics Canada (2012). *A profile of persons with disabilities among Canadians aged 15 years or older*. Retrieved from: <http://www.statcan.gc.ca/pub/89-654-x/89-654-x2015001-eng.htm#n1>
42. Taylor, S. L., Werthner, P., & Culver, D. (2014). A Case Study of a Parasport Coach and a Life of Learning. *International Sport Coaching Journal*, 1(3), 127-138. <https://doi.org/10.1123/iscj.2013-0005>
43. Taylor, S., Werthner, P., Culver, D., & Callary, B. (2015). The importance of reflection for coaches in parasport. *Reflective Practice*, 16(2), 269-284. <http://dx.doi.org/10.1080/14623943.2015.1023274>

44. Tawse H., Bloom, G. A., Sabiston, C. M., & Reid, G. (2012). The role of coaches of wheelchair rugby in the development of athletes with a spinal cord injury. *Qualitative Research in Sport, Exercise and Health*, 4(2), 206-225. <https://doi.org/10.1080/2159676X.2012.685104>
45. Topping, A. (2012). *Locog hails biggest and best Paralympics in history*. Retrieved from: <https://www.theguardian.com/sport/2012/sep/06/paralympics-ticket-sales>
46. Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach-learner's perspective: considerations for coach development administrators. In: P. Potrac, W. Gilbert, & J. Denison, (Eds.). *Routledge handbook of sports coaching* (pp. 375-387). London: Routledge.
47. Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In: D. Kirk, D. MacDonald, & M. O'Sullivan (Eds.). *Handbook of physical education* (pp. 516-539). Thousand Oaks, CA: Sage.
48. Valentine, F., & Vickers, J. (1996). Released from the yoke of paternalism and charity: Citizenship and the rights of Canadians with disabilities. *International Journal of Canadian Studies*, (14), 155-178.
49. Wenger, E. (1998). *Communities of practice: Learning meaning and identity*. New York, NY: Cambridge.
50. Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, 20(2), 198-212. <https://doi.org/10.1123/tsp.20.2.198>
51. Werthner, P., & Trudel, P. (2009). Investigating the idiosyncratic learning paths of elite Canadian coaches. *International Journal of Sports Science & Coaching*, 4(3), 433-449. <https://doi.org/10.1260/174795409789623946>
52. Werthner, P., Culver, D., & Trudel, P. (2012). An examination of a large-scale coach education program from a constructivist perspective. *Sport psychology insights*, 337-355.
53. Winchester, G., Culver, D., & Camiré, M. (2013). Understanding how Ontario high school teacher-coaches learn to coach. *Physical Education and Sport Pedagogy*, 18(4), 412-426. <https://doi.org/10.1080/17408989.2012.690376>
54. Wright, T., Trudel, P., & Culver, D. (2007). Learning how to coach: The different learning situations reported by youth ice hockey coaches. *Physical Education and Sport Pedagogy*, 12(2), 127-144. <https://doi.org/10.1080/17408980701282019>

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