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How coach educators deliver effective formal coach education: A full range leadership perspective

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Abstract

Whilst recent work recognises a need for coach education to place greater emphasis on interpersonal knowledge when developing coaching expertise, it is our position that coach educators (CEs) must follow a similar trajectory in embracing the interpersonal knowledge requisite of *their* role, and move beyond a reliance on content and professional knowledge in order to shape their delivery. In order to better understand CE behaviour, we observed four experienced CEs in Alpine skiing, using an adapted version of the Coach Leadership Assessment System (CLAS) (Turnnidge & Côté, 2019) during delivery of a coach education and assessment course. We also interviewed CEs to further elucidate the observational data. Our findings suggest the benefit of transactional approaches to leadership during assessment, when set against the backdrop of an environment driven by intentions consistent with transformational leadership. Furthermore, we call for a greater appreciation of context when imagining CE behaviours that align with effective practice.

Keywords: Transformational leadership, critical realism, assessment, authentic behaviour

It is well documented that coaching is a complex activity (Bowes & Jones, 2006; Horton, 2015; Martindale & Collins, 2012) and that preparing coaches to operate as effective practitioners in a dynamic environment remains problematic (Avner, Markula & Denison, 2017). The gap between theory and practice is an equally knotty issue and despite some excellent work that informs curriculum design and pedagogic innovations (Lefebvre, Evans, Turnnidge & Gainforth, 2016; Morgan, Jones, Gilbourne & Llewellyn, 2013; Paquette & Trudel, 2018a; Vella & Perlman, 2014), developing coaches often cite poor CE delivery and inferior communication skills, as factors that limit the efficacy of formal coach education (Nelson, Cushion & Potrac, 2013; Paquette & Trudel, 2018b). Whilst there is a call to arms for coach education to place greater emphasis on interpersonal knowledge when developing coaching effectiveness (Côté & Gilbert, 2009; Lefebvre et al., 2016; Turnnidge & Côté, 2018), coach educators must follow a similar trajectory in embracing the interpersonal knowledge requisite of *their* role, and move beyond a reliance on content and professional knowledge in order to shape their delivery. In considering the role of the coach educator it is important to clarify our use of terminology, which remains ambiguous in the field. When considering coach education, McQuade and Nash (2015) offer a useful distinction between coach assessors and coach developers, where the former is concerned with accreditation and standards and the latter with coach learning. Although we use these terms later in the paper, when referring to coach education more generally and to those who might be engaged in both assessment and development activities, we will continue to refer to the coach educator (CE).

Given the complexity of the coach education environment, we suggest that CE behaviour should never be prescribed. However, using leadership models to guide coach educator delivery, in what is often a multi-faceted role, is a worthwhile endeavour that has the potential to advance our understanding of the coach education landscape. To our knowledge, there is no existing research that addresses this area of enquiry. Accordingly, this

paper embraces a multi-method approach and draws on the full range leadership model (FRLM) (Avolio & Bass, 1991) to examine observational data, coach educator interviews, and developing coach feedback to make suggestions as to how CE behaviour may shape quality delivery.

Coach Education Landscape

In order to better understand CE behaviour, it is essential to understand the environment in which they operate. Hence, we draw from the wider literature, but also from the collective experience of the research team, as educators of coaches both in higher education and for National Governing Body qualifications. In this paper, we set out to investigate the variant behaviours essential for CEs to occupy the different roles that characterise their practice. Given the limited research in this area we make no apology for providing the reader with an extended overview of what this role requires. Coach education has been categorised as occurring in formal, non-formal and informal settings (Coombs & Ahmed, 1974; Nelson, Cushion & Potrac, 2006) with clear evidence that coaches often refer to informal learning as their preferred mode of development (Cushion, Armour & Jones, 2003; Mallett, Trudel, Lyle & Rynne, 2009). Informal learning refers to learning that occurs outside of organised provision (Reade, 2009) and is often driven by reflection, observation, and discussion (e.g. Nelson et al., 2006). Despite coaches reporting a preference for informal learning, the importance of formal coach education must not be under estimated, with some sources suggesting the importance of a balance between the two (Erickson, Bruner, McDonald & Côté, 2008). With the professionalisation agenda continuing to gather momentum (Malcolm, Pinheiro & Pimenta, 2014), sport coaching is becoming more regulated as an industry, with formal coach accreditation now the norm. Whilst informal settings will always shape a coach and we know that social learning is central to coach development (Culver & Trudel, 2006; Garner & Hill, 2017), formal coach education provides

the one guaranteed opportunity that CEs have to provide the essential messages that could, or perhaps should, influence the coaches of the future. Furthermore, formal coach education promotes an understanding that can potentially influence informal discussion and learning among coaches.

Notwithstanding the importance of formal education, current research continues to be critical of quality and reports a pervasive and dominant focus on discipline specific professional knowledge (Avner et al., 2017; Côté & Gilbert, 2009). Beguiled by a reductionist approach that accelerates the certification and therefore operationalization of coaches, coach education could be accused of compromising a focus on learning and development in its quest for professionalised standards. This position is reflected by a 'trait' or competency based approach (cf. Malcolm et al., 2014), which is indicative of large-scale initiatives to homogenise the process of training and qualifying coaches, such as United Kingdom Coaching Certificate (UKCC) and National Coaching Certification Program (NCCP). Despite this somewhat gloomy appraisal, extant research presents some innovative approaches that require CEs to have advanced interpersonal knowledge. Collins, Carson and Collins (2016) criticise the competency-based approach and call for a greater attention on professional judgment and decision-making (PJDM). They propose "the constructivist approach of a cognitive apprenticeship" (2016, p.358), to help developing coaches acquire the skills to manage the implicit processes and tacit understandings associated with the complexity of real-world contexts. This approach relies on the collaboration of coach and CE to engage in problem solving, and places the CE as a facilitator of learning as opposed to a more didactic imparter of knowledge.

Côté and Gilbert (2009) have further added to the idea of effective coaching by proposing a set of knowledge areas that need to be integrated to assure quality delivery and positive outcomes. They suggest that "coaching effectiveness is the consistent application of

integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts" (Côté & Gilbert, (2009, p.316). To the authors' knowledge, there is no definition for an effective CE, although Côté and Gilbert's (2009) definition for effective coaching offers a useful departure point for our paper. In order for CEs to be effective, it is proposed that a more detailed understanding of the requisite components exists.

Interpersonal knowledge

Although there is some recognition for interpersonal knowledge to feature more prominently in formal coach education (Vella et al., 2013; Turnnidge & Côté, 2018; 2019), it is often assumed that effective interpersonal knowledge is innate and cannot be taught, with formal coach education neglecting to address interpersonal knowledge in a structured way (Avner et al., 2017; Jones, Morgan & Harris, 2012; Lefebvre et al., 2016). Because interpersonal knowledge may be difficult to teach and equally challenging to assess within a coach education setting, it is often understandably left alone or, at best, judged informally.

There are tools that exist within sport coaching research that have been used to capture behavioural data, with much of this work informed by motivational theory (e.g. Erickson & Côté, 2015; Smith et al., 2015; Webster et al., 2013). More contemporary research by Turnnidge and Côté (2019) presents the Coach Leadership Assessment System (CLAS) and a transformational coach development workshop (Turnnidge & Côté, 2017). This recent work is underpinned by the framework of the full range leadership model (Avolio, 2011), which espouses in particular the central tenets of Transformational Leadership (TFL) (Bass & Riggio, 2006). The workshop offers youth coaches a professional development opportunity, in a mediated (Werthner & Trudel, 2006) yet non-formal (Nelson et al., 2006) setting, helping coaches to develop practical strategies to develop a more transformational coaching style. The efficacy of the workshop is measured in part using the

CLAS, which is an observational tool for measuring coach leadership characteristics and coach behaviour. More recently, the CLAS has been used to observe and analyse soccer coach behaviour in training and competition settings (Lefebvre, Turnnidge & Côté, 2019) and in the absence of similar resources for CEs, this work will be used to guide and shape our understanding of CE behaviour.

Beyond the dichotomy of transformational and transactional leadership in sport

In referring to leadership as a source to inform coach behaviour, sport coaching literature supports TFL as a model that has a positive impact upon athlete outcomes (e.g. Callow, Smith, Hardy, Arthur, & Hardy, 2009; Charbonneau, Barling, & Kelloway, 2001; Rowold, 2006; Stenling & Tafvelin, 2014). This work is based upon Bass and Riggio's (2006) original conceptualisation of TFL from work in business leadership that presents a way for leaders to positively affect levels of motivation, commitment, and performance amongst followers (Bass & Bass, 2009). Although not without critique (e.g. Arthur, Bastardoz & Eklund, 2017; Figgins, Smith, Knight & Greenlees, 2019), TFL builds upon Burns' (1978) early work that conceptualised leadership as either transactional or transformational, and has become the most widely studied and published model for leadership since the turn of the century (Arnold, 2017). TFL sits within the FRLM (Avolio & Bass, 1991) that also includes transactional leadership (TSCL) and laissez-faire (LF). The FRLM presents TFL as a more effective way to lead than either TSCL or LF, with transformational leaders intent on developing followers into leaders. Conversely, transactional leaders are more focussed on motivating followers for task completion, including dimensions such as contingent reward and management by exception (Avolio, 2011). LF refers to disinterest and an absence or avoidance of leadership. In a coaching setting, existing literature places emphasis on TFL as a way to promote lasting learning, athlete empowerment, and the realisation of potential (Turnnidge & Côté, 2017; 2019) by

accessing four behaviour dimensions known as the 4 'I's'; idealized influence (charisma), inspirational motivation, intellectual stimulation and individualized consideration (cf. Bass & Riggio, 2006).

Compared to the original research (Avolio & Bass, 1991; Bass & Riggio, 2006), application of the FRLM model in a sporting context remains relatively nascent (Turnnidge & Côté, 2018; Vella et al., 2013). The current picture is largely dualistic with TFL championed as *the* new approach, whilst TSCL is consigned to an 'old school' approach, more aligned with an authoritarian style of delivery. Although Avolio and Bass (1991) introduce a dualism in their model, there is a layer of detail and nuance in their work that affords a more complex appreciation of leadership contexts. In particular, that effective leadership requires the leader to display all aspects of the full range model to varying degrees and that TSCL often contributes to positive outcomes. Furthermore, the notion that a transformational leader can call upon directive or participative behaviours (Avolio, 2011) offers an important level of subtlety in how CEs might view effective practice and suggests that the intent to be transformational is of greater importance than the behaviours per se.

The intention that drives leadership behaviour is explored in the wider literature, with considerable work focussed on the concept of authentic versus pseudo approaches to transformational leadership (e.g., Barling, Christie & Turner, 2008; Bass & Steidlmeier, 1999; Christie, Barling & Turner, 2011). A pseudo-approach refers to a leader who may express what appear to be transformational behaviours, yet is motivated to do so primarily for personal gain. In contrast, an authentic approach is where the leader is motivated by a genuine desire to develop and advance the prospects of their followers, a position that aligns with a follower-centred approach to leadership, or indeed a learner-centred approach to coach education. This important consideration, that places intention at the heart of the argument, has received limited exposure in sport coaching research. One notable exception is a recent

paper by Cruickshank and Collins (2016), which advances the argument that to categorise behaviours as dark (pseudo) and bright (authentic) is unhelpful and unnecessarily dualistic. This position provoked healthy debate (Mills & Boardley, 2017) and supports the notion that we need a better understanding of what behaviours might align with effective (transformational) outcomes.

Despite these criticisms, the FRLM provides a useful framework to inform desired coach behaviour however, there is a paucity of literature that explores CE behaviour. As we have already suggested, CEs often have to occupy multiple and sometimes contrasting roles (e.g. educator and assessor), regularly with the same group, on the same course, and there would appear to be an urgent need for a deeper understanding of how CEs might behave in such challenging circumstances. Indeed, related work in the field of medicine has documented the need to better understand how to manage an environment where the intention is for learning and assessment to coexist (Watling, 2016; Watling & Ginsburg, 2019). The limited research on CEs tends to focus on *what* they deliver as opposed to *how* they deliver. For example, part of the CE's role is to assess a candidate's ability to meet standards, yet the literature appears to focus almost unequivocally on educational content and neglects the skills required for the management of assessment. One notable exception is presented by Hay, Dickens, Crudington and Engstrom (2012), who explored the efficacy of assessment in coach education and how assessment can contribute to learning, however, this work drew largely from educational research (Bernstein, 1971; Hay & Penney, 2009) and not from a coach education setting. Given the inexorable prominence of assessment within coach education and the need to positively influence developing coaches during this process, this paper seeks to explore how CE behaviour may best be conceptualised when fulfilling the different roles that exist in formal coach education.

Methods

Nichol, Hall, Vickery and Hayes (2019, p.19) recommend that those conducting sport coaching research make more effort to "explicitly acknowledge and consider the philosophical and paradigmatic assumptions underpinning their research." Embracing this notion, we adopted a critical realist perspective that legitimizes a synergy between ontological realism and epistemological relativism (Bhaskar, 2010). Critical realism allows an occupation of the middle ground between the dominant paradigms of traditional research, promoting what Grix (2010) described as an epistemic border where *hard* interpretivism meets *soft* post-positivism. This position fails to sit neatly within the prevailing paradigms of positivism and interpretivism, but advocates the exploration of a complex social system. It allows us to seek answers so that we might impact on the real world of coaching and coach education.

Participants

Consistent with intensive qualitative research (Sayer, 2010) a purposive sampling strategy was applied (Sparkes & Smith, 2014). Once ethical permission was granted from the lead author's institution, all participants were consulted and informed consent for their involvement in the project attained. The participants were four male coach educators, aged between 40 and 50 years old, working in the French Alps for a national training and accreditation body for snowsport instructors and pseudonyms are used throughout. All CEs had been in post for between 14-18 years, had delivered every level of course including the observed course at least 20 times, were considered expert by candidates and peers in the association, had worked as CE mentors, and had delivered at National and International CE conferences over the past decade.

Data Collection

Drawing from the FRLM (Bass & Riggio, 2006), CE behaviours were observed and examined using the CLAS (Turnnidge & Côté, 2019), which was designed to examine

coaches' real time leadership behaviours. Our application of the CLAS deviates from the original conceptualisation of the model in two ways. First, it was used in the field and hence involved event-based coding (Vierimaa, Turnnidge, Evans, & Côté, 2016), as opposed to the video-based continuous coding used during the validation and subsequent deployment of the CLAS (Lefebvre et al., 2019; Turnnidge & Côté, 2019). Second, the CLAS was designed to investigate the coach-athlete relationship, whereas this study explores the coach educator-developing coach relationship. Whilst many similarities exist between these dyads, it should be recognised that significant differences are apparent. However, both coaches and coach educators operate in leadership positions and are subject to similar behavioural options; indeed there is no reason why the CLAS should not be adapted to observe leadership behaviours in any context. These anomalies were discussed with the authors of the CLAS during the design phase of this project and it was agreed that these adaptations did not compromise the appropriateness and integrity of the CLAS as a tool for data collection.

The CLAS consists of five higher order dimensions related to the FRLM, *transformational, transactional, laissez-faire, neutral,* and *toxic* coaching and seventeen leadership tone behaviours (cf. Turnnidge & Côté, 2019). Following rigorous training in accordance with the coding protocol of the CLAS (Turnnidge & Côté, 2019), the lead researcher engaged in two separate weeklong data collection periods, observing two different CEs in each week. The four CEs were all delivering technical alpine ski training and assessment courses and were observed for approximately three hours per day. Observation involved the lead author shadowing the course delivery on the mountain, recording every distinct unit of behavioural interaction between CE and candidates.

Data collection period	Coach Educator	Level of course delivered	Day				
			1	2	3	4	5
Week 1	Jack	Level 4 course	3hrs	3hrs	3hrs	3hrs	3hrs
Week 1	Garry	Level 4 course	3hrs	3hrs	3hrs	3hrs	3hrs
Week 2	Dean	Level 2 course	-	3hrs	3hrs	-	3hrs
Week 2	Richard	Level 2 course	-	3hrs	-	3hrs	3hrs

Table 1. Time spent observing and coding coach educator behaviour

N.B. Consistent with other coach education qualifications these levels are mapped against National Qualification Frameworks. Level 1 is the lowest level of qualification, with level 4 the highest level of qualification.

The training and assessment courses were focussed on ski performance, not on teaching ability and culminated with a pass/fail decision delivered to candidates on the final day. Although results were announced at the end of the course, this day did not represent *the assessment day;* candidate performance was continually assessed throughout the course.

A mixed methods approach was taken. Therefore, in addition to observational data, semi-structured interviews were conducted with each of the CEs to gather deeper explanatory data on their leadership behaviours. CEs were asked to reflect on how they behave during a course and to share examples of good practice. Example interview questions were:

- *How do you think you adapted your behaviour or style of delivery during the course?*
- *Why was it important in your opinion to behave in that way?*

The lead researcher was also able to collaborate with the governing body to gain access to the course outcome information that showed pass rates and candidate feedback, which provided supplementary data to further support the analysis process.

Data Analysis

A thematic analysis (Braun & Clarke, 2006) was conducted of the interview data, candidate feedback, and researcher's reflections to help make sense of the patterns in the observational data. This process started with the lead researcher transcribing the data verbatim and (re) reading the transcripts in order to become fully immersed. Once raw data

responses had been coded, overarching themes were established via a process of retroductive analysis that drew upon a deeper reading of the full range leadership model (Avolio, 2011; Bass and Riggio, 2006). In addition, observational data was presented using descriptive statistics with the percentage frequency of leadership behaviours used to show trends in behaviour across the course (see Table 2.).

Importantly, critical realist research seeks findings and beliefs that *appear* to be truthful (Nichol et al., 2019; North, 2013; 2017), consulting multiple perspectives during analysis, including that of the researcher. Therefore, our discussion of the findings will draw not only upon the themes emerging from the data, but also from the lived experience of the lead researcher. With 15 years operating as a CE in snowsports, the lead researcher had a high level of familiarity and expertise within the research context that to some extent alleviated the "researcher as professional stranger" metaphor (Flick, 2009, p.110) and helped access what Adler and Adler (1987, p.24) refer to as an 'insider perspective' on the reality of being a CE in snowsports. Seeking to embrace researcher opinion, based on contextual expertise, is consistent with previous research in coach development (e.g. Culver & Trudel, 2006), and is central to critical realist accounts, whereby researchers are encouraged to abstract meaning from the data (Pawson, 2006) by stepping "outside stakeholder narratives to make independent judgments about coaching structures" (North, 2017, p.227).

Methodological Rigour

To ensure rigour throughout the research process, Tracy's (2010) eight criteria for excellent qualitative research were used. At its heart Tracy's model centres on Karl Popper's concept of verisimilitude, which, as explained by Sparkes and Smith (2014), is concerned with a *version* of reality that is closest to the truth as opposed to a literal truth, with a requirement for authenticity in how the research is presented. Despite the limitations of a relatively small sample size, rich rigor and thick description (Tracy, 2010) was attained

through considerable time spent in the field and the privileged access to context afforded to the lead researcher as a result of past experience.

Results

Overall, findings highlighted the dynamic nature of coach educator behaviours and their trajectories over time (see Table 2.). The average number of coded CE events was 60 per day (SD = 2.74) and although it was not possible to code every day for each CE, the data presented an overwhelming picture of behaviour moving towards a more transactional mode of delivery as the courses progressed (e.g. Day 1 - 7% and Day 5 – 73.9%). Conversely, the first three days of delivery were characterised predominantly by transformational behaviours. Although the data suggest transactional behaviours dominate the end of the course, transformational behaviours were still deployed on the final two days. Of the four lower order dimensions of TFL, inspirational motivation and individual consideration were used by the CEs to a greater extent than idealized influence and intellectual stimulation. The occurrence of toxic behaviour on day one represents the only occasion toxic behaviour was observed throughout the study.

		Leadership							
		Transformational							
		II	IM	IS	IC	TSC	Laissez-Faire	Toxic	Total number of coded events
Day	Courses Focus								
1	Development	8.6%	35.7%	41.4%	5.7%	7.1%	0%	1.4%	77 *(2 CEs Observed)*
2		4%	50.6%	26.7%	15.1%	3.6%	0%	0%	251 *(4 CEs observed)*
3		3.7%	45.7%	23.3%	22.8%	4.6%	0%	0%	219 *(3 CEs observed)*
4		4.2%	36.3%	4.7%	19%	35.8%	0%	0%	190 *(3 CEs observed*
5	Assessment	0.5%	12.8%	3.3%	9.5%	73.9%	0%	0%	211 *(4 CEs observed)*

Table 2. Percentage frequency of higher order leadership dimensions across delivery day where the delivery focus changed from an emphasis on development to assessment *(white shading = more development focus, black shading = more assessment focus)*

N.B. II = Idealized Influence; IM = Inspirational Motivation; IS = Intellectual Stimulation; IC = Individual Consideration; TSC = Transactional

Interview data revealed the themes of *intentionality*, *transformational behaviours during assessment, directive/participative approaches, authentic/pseudo transformational leadership and expressed humility,* which are discussed below. Interview data also suggested that the tone of the CEs' interaction with the developing coaches was largely intentional, with underpinning decision-making processes clearly articulated. The findings are not intended to offer unequivocal answers; instead, the hope is to build a clearer picture of the requisite interpersonal knowledge to guide CE behaviour when occupying different roles within the coach education environment. Supplementary data showed high levels of candidate satisfaction and a number of positive qualitative comments despite varying pass rates. The pass rates represent normative data for these courses where the level 4 is a particularly exacting standard with a lower expected pass rate.

Coach Educator (CE)	Number of candidates on course	Level of course delivered (Entry level =1, International recognition = 4)	Candidate overall satisfaction with course delivery (%)	% Pass rate	Examples of qualitative comments from candidates
Jack	6	4	81	33	*I liked that trainers were aware and asking about fatigue levels*
Garry	6	4	95	66	*I picked up my mood when Garry gave me a word of encouragement and he does identify when we all need one. It is a great skill he has*
Dean	10	2	97	70	*Lots of positive feedback, which kept morale high*
Richard	10	2	94	70	*…relaxed environment, I felt Richard set a good atmosphere*

Table 3. Course outcome data

Finally, the outcomes of the courses appear to have been transformational in nature. This claim requires us to revisit the place of verisimilitude in critical realist research (Polkinghorne, 1986). With a 60% pass rate across the four courses, an overall 91% candidate satisfaction rating, and the positive qualitative comments in candidate feedback, there is verisimilitude in suggesting that the coach education environment was characterised by trust, commitment, and followers who were satisfied with their leader, all of which are outlined by Bass and Riggio (2006) as outcomes of transformational leadership. It was also the position of the lead researcher, having been immersed in the research context, that the outcomes experienced by the candidates were largely transformational.

Discussion

The purpose of this study was to use leadership as a lens to better understand the behaviour of coach educators when delivering a continually assessed coach accreditation course. The findings extend previous empirical research on transformational leadership as a guide for coach educator behaviours, by providing an in depth analysis of how different roles, within a given context, affect leadership decisions. Furthermore, interview data suggests distinctions can be drawn between the conceptualisation of transformational behaviours (Bass

& Riggio, 2006; Turnnidge & Côté, 2019) and transformational intentions, with indications that transformational outcomes can be achieved by behaviours not usually associated with TFL.

Effectiveness requires intentionality

Despite the continually assessed nature of this coach education context, the two distinct roles of coach developer and coach assessor were clearly observed, with the assessor role characterising delivery towards the end of the courses. CEs were intentional in their choice of behaviour relative to their role, and rather than adopting behaviours that would ordinarily align with a learner-centred approach, in the naïve belief that transformational outcomes would ensue, they favoured transformational behaviours in the role of coach developer and transactional behaviours in the role of coach assessor. The *intention* to be transformational is highlighted by this extract:

> Everyone who does our job is a coach first and foremost. Before they become an assessor they've necessarily taught skiing for years and years, and trying to get people better at skiing is in their blood and they want people to get better, they care about how people are going and worry if things aren't going well. (Richard)

In order to successfully play the roles of assessor and developer, the data suggests CEs also need to articulate their intentions to ensure follower trust and understanding. Turnnidge and Côté (2019, p.8) describe one element of inspirational motivation as "behaviours through which the coach highlights the value or meaning of certain activities and role or provides rationales"; interestingly, it appears in this study that sharing intentionality with followers allows transactional behaviours to provide transformational outcomes. The following extract provides a clear example of shared intention for transactional behaviour.

> It's about being transparent with the process [*of developing and assessing*]. You've got the job of coach and you've got the job of assessor where you've got to tell them

> [*candidates*] whether they are good enough or not. When I set a course up I talk about this with the candidates the night before. (Richard)

When the rationale for this type of behaviour is not shared, the outcomes appear to be different:

> Yeah… I think the times I've got it wrong are when I've not got the elephant in the room out there early enough… I might have left it too late [*explaining to the candidate that they are below the required level*] or tried to be too nice and that's when it hasn't worked. (Jack)

Further evidence of clearly articulated thought processes, which align with intentional decision-making, can be seen when discussing the transformational behaviours that enable high quality coach development.

> I think all the time when you are coaching you are aware of your behaviour, not just the information you are putting across but how you are interacting with the group, the sort of climate you are setting, whether you are going for a relaxed informal chat or going 'right we need to achieve this task now'. All of those decisions are going on in your head all the time. (Dean)

Here, Dean demonstrates genuine self-awareness as to how he exerts an idealized influence and demonstrates individualised consideration in his delivery.

As CEs aspire to greater levels of quality in their practice, the notion that intentions should necessarily be articulated is somewhat at odds with previous conceptualisations of expertise. Previous research has suggested that expertise is characterised by intuitive behaviour (Nash & Collins, 2006; Schempp, McCullick & Sannen Mason, 2006), however, our data suggests a situation more aligned with Birch's (2016, p.245) assertion that "skills are intentional actions" where interpersonal interactions are guided by explicit knowledge and clearly articulated intention. As such, intuitive behaviour, governed by implicit knowledge,

may contribute to a *level* of expertise, but without conscious intention to guide CE behaviour, subsequent development of CE expertise would be limited. Consequently, we encourage CEs who may view themselves as experts to move beyond this fixed state, and instead continue what should be an unending quest for expertise.

The role of transformational behaviours during assessment

Although the data portrays a more transactional approach in the coach assessor, there is merit in discussing the transformational behaviours that were also present toward the end of the course. As acknowledged by Lefebvre et al. (2019), we recognise that the value of leadership behaviours cannot be purely based on frequency, but must also consider the impact they have in context. For example, one instance of intellectual stimulation may transform the understanding and subsequent development of an athlete, whilst ten episodes of inspirational motivation may serve only to maintain existing effort levels. Nevertheless, of the 4 Is, inspirational motivation and individual consideration featured more prominently in CE behaviour during the assessment context, and the implications may offer further guidance for CEs operating the dual role of developer and assessor. Once in an assessment context, positive outcomes are time-sensitive and in most cases require a short-term approach. Whilst TSCL aligns comfortably with short-term objectives, we argue that elements of TFL remain important for coach assessors to avoid overall transactional or even toxic outcomes. Specifically, motivation and care for the individual remain important considerations for the coach assessor, as highlighted in these interview extracts:

> I change my behaviour as I see fit for the situation I am in. It might be that on the last day [*of the course*] there are people who are really worried and getting quite stressed [*about the result*], so I'll change my behaviour to get them more relaxed and take their mind away from things. It really depends on the situation, I go minute by minute really. (Gary) – Individualized consideration

> …we've got to work as a team, if someone is particularly strong in one area, say the bumps *[an assessment activity]*, I might well link you up with someone else who is not as good [*so that you can work together*]. (Dean) – Inspirational motivation

In contrast, intellectual stimulation and idealized influence were less manifest during assessment and seemed more relevant to a development focus. We argue that there is good reason why the coach assessor would avoid intellectual stimulation during assessment, where questioning and attempts to share responsibility run the risk of candidate confusion, frustration, and cynicism. Instead, intellectual stimulation is more likely to characterise effective coach development; it promotes learner independence, problem solving and understanding, and is therefore an ideal delivery mode to *prepare* developing coaches for the rigours of assessment and the complexity of real world travails. Equally, idealized influence is more aligned with the role of coach developer and sets the foundation for authenticity and trusting relationships (Turnnidge & Côté, 2019). The humility and pro-social behaviours connected with this dimension of TFL are requisite from the very beginning of any coach education experience and should be in place before assessment, as explained by Dean,

> you've got to first of all build some relationships with the group, so they hopefully respect you, then when you deliver that information midweek [*their progress in relation to the assessment criteria*] they accept it because they like and respect you. (Dean)

The previous two themes suggest distinctive CE roles require different leadership approaches, including transactional behaviours in order to maintain a transformational environment and that these approaches are deliberately and consciously deployed by effective CEs.

Directive/Participative Transformational Leadership

Given the suggestion that transactional behaviours can result in transformational outcomes, the distinction between TFL and TSCL warrants further investigation. Rather than seeing behaviours as aligned with different models of leadership, it is perhaps more useful to draw upon Bass and Riggio's (2006) recognition that transformational leadership can be directive or participative. This raises the question as to whether the transactional behaviours deployed by the CEs with transformational intentions, are transactional or in fact just directive transformational behaviours?

> I will always make a point of finding times in the week when I definitely put that hat on [*assessor*] and let people know where they are up to [*in relation to the criteria*]. If you keep it clear you can do both jobs [*assessor and developer*]. (Richard)

Here, Richard has candidate success at the heart of his decision. His intention is to provide clarity, which builds trust and facilitates potential however, his behaviours could be construed as transactional as he is essentially, "searching for and responding to deviations from rules or standards" (Turnnidge & Côté, 2019, p.8).

In conceptualising how behaviours change to align with different CE roles, the significance of directive/participative approaches could prove to be more useful than contrasting TFL with TSCL. Indeed, Avolio (2011) made the point that acknowledging directive approaches within TFL proved particularly useful in convincing reluctant trainees that TFL was not a veiled attempt to pursue a purely participative, democratic, and in their eyes ineffectual approach. Although the difference between directive TFL and TSCL may appear subtle, research shows that small changes in behaviour that mark the shift from transactional to transformational can have important outcomes (Barling, 2014).

Authentic/Pseudo Transformational Leadership

In order to avoid an overly simplistic dualism in our approach to leadership in coach education, that TFL is effective and TSCL is less effective, it is important that we continue to

avail ourselves of the complexity offered by the original literature. In addition to the directive/participative spectrum the lens of authentic and pseudo motives is also instructive in interpreting the data.

> As time's moved on I am just more open and honest with the people I am coaching… you know if they are coming down *[the slope]* asking me what they need to work on and I'm not sure I'll say, 'I don't know I need to see you some more, I just haven't got it *[the approach they need for development]* clear in my head yet' (Jack).

Here, Jack has the humility to admit he does not yet have the knowledge he requires. In so doing, he embraces a degree of vulnerability and arguably exerts an idealized influence; his behaviour is authentic and honest.

Although authentic leadership exists as a stand-alone model (Avolio & Gardener, 2005), in his original work on TFL, Burns' (1978) emphasised the importance of leaders' moral standing. Bass and Riggio (2006) elucidated further, distinguishing between authentic and pseudo transformational leaders. The former refers to a genuine proponent of altruistic intentions and the humility required to turn followers into leaders, whilst the latter describes a leader with warped moral principles, who is driven by self-interest. As we see in Jack's account, pseudo transformational behaviour will often backfire over time.

> The first course I delivered, I tried to be everyone's best friend [*self-interest*] and then towards the end of the week, I realised a lot of them were not passing, so I switched into this really commanding authoritarian figure saying, 'right if you don't do this you are not going to pass' and it just didn't work. (Jack)

As a new CE, Jack sought the affirmation of friendship, however, despite the pro-social nature of his behaviour, he was motivated by self-interest and hence adopted a pseudo transformational approach. As a consequence, the candidates became overly familiar, which impinged on Jack's ability to communicate honest feedback in relation to the level and

maintain transformational outcomes. As a consequence of a pseudo approach, the environment soured, with the implication of damage to performance.

If intention is to be foregrounded over behaviours per se, then every effort should be made to encourage authentic, in place of pseudo, intentions, which at best may be used for what Mills and Boardley (2017, p. 568) termed "tactical impression management." The findings of this study support the notion that CE behaviour is more effective when intentions authentically align with TFL.

Research has shown that leaders who exhibit pseudo transformational characteristics often have high levels of inspirational motivation, but low levels of idealized influence, whereby an absence of clear values or moral compass results in inspirational behaviours that are motivated by personal gain (Christie, Barling & Turner, 2011). As expounded by Erickson (1995), authenticity is not an either/or condition Rather, people display levels of authenticity and it is exactly this level that should concern us when considering the desirable behaviours of coaches or coach educators.

Expressed Humility

The final theme was interpreted inductively by the researchers and relates to two particular episodes that provide unlikely examples of expressed humility (Owen, Johnson & Mitchell, 2013), one from the observational data and the other from the interview transcript. On face value, both episodes could be construed as compatible with darkside behaviours (e.g. Higgs, 2009; Judge, Piccolo & Kosalka, 2009). There is an informative body of work around the relative value of bright and darkside behaviours (e.g. Cruickshank & Collins, 2016; Higgs, 2009; Judge, Piccolo & Kosalka, 2009; Mills & Boardley, 2017), with Judge et al. (2009) presenting darkside leadership traits as narcissism, hubris, social dominance and Machiavellianism. In contrast, bright behaviours are those typically viewed positively in society.

Both the observational and interview data in this study generated examples of darkside behaviours, termed *toxic* in the CLAS (Turnnidge & Côté, 2019). The example of observed behaviour was consistent with social dominance and involved a member of the public, skiing extremely fast and out of control through the developing coaches. Fearing for the safety of his group, Jack pursued the rogue skier and engaged in an angry exchange. Similarly, in the interview data, Dean discussed an approach to motivating his group that was indicative of Machiavellianism.

> *Dean*: I kept them very much on their toes and said 'you're doing really well but if I was to make my decision today you wouldn't pass' [*an untruth*] So we worked really hard the following week and we got a great pass rate.
>
> *Interviewer*: So, you weren't honest with them?
>
> *Dean*: Correct, I was harsh with them. So someone I thought was just a pass on say long turns *[an assessment activity]*, I told them they were borderline *[i.e. not passing]*.

Despite the apparent darkside nature of these two incidents, if we consider the intention behind both acts, there is a level of expressed humility that suggests transformational outcomes. Expressed humility has been defined as comprising three components: an accurate self-assessment, an other-centredness, and a teachability or willingness to learn (e.g. Austin, 2014; Owen et al., 2013). Although not initially appearing to be the acts of a humble leader, on reflection, and considering related theory in more depth, a case can be made for an other-centredness in both episodes. In Jack's case, although his behaviour was coded accurately as toxic toward the individual perpetrator, it appeared to the lead researcher to have the effect of building respect and trust within his group, contributing to a team spirit and atmosphere of care. Equally, in considering Dean's behaviour, his economical use of the truth was intended to motivate his followers for their own benefit, it

helped to realise potential and provide a level of inspirational motivation. Arguably both CEs behaved with authentic, morally laudable intentions that fostered positive, if not transformational, experiences for their followers.

It is of essential importance that this line of discussion is not misinterpreted. In no way are we tolerating behaviours that are authentically dark in nature. Rather we encourage a better understanding of how behaviours consistent with the full range leadership model may impact coach education environments. Specifically, it is our contention that intention and influence must be fully explored, so that we have the opportunity to develop coach educators capable of authentically embracing transformational outcomes.

Implications for Coach Developer and Coach Assessor Interpersonal Knowledge

The implications of role and the importance of intentionality, directive/participative approaches, pseudo/authentic TFL and expressed humility are significant in our understanding of how both coaches and coach educators behave. Given the importance of these underpinning concepts and the variability of the context inhabited by coach educators, this paper will now present suggestions as to how the requisite interpersonal knowledge in coach educator roles (coach developer and coach assessor), as outlined by McQuade and Nash (2015), may be addressed.

Coach developer. The observational data suggests the role of coach developer is particularly aligned to the behaviours associated with the '4 I's' as expounded in TFL. Turnnidge and Côté's coach development workshop (2017) and more recently the CLAS (2019) provide two excellent tools that coaches and coach educators can use to think more deeply about their behaviours and the impact on participant learning and development. In aspiring to deliver coach education in a way that embraces a coach-centred philosophy, surely such clear direction for coach educators is welcome. Despite this helpful work, we

suggest the importance of context receives greater attention and that transformational intentions are in the vanguard ahead of behaviours per se.

Coach assessor. Developing expertise in others differs from assessing expertise. Indeed, the results of this study suggest the role of coach assessor requires a different interpersonal approach that draws upon a directive or even transactional leadership tone, characterised by clarity and instruction to facilitate understanding of assessment expectations (Schedlitzki & Edwards, 2018). The value of assessment in coach education, despite the arguments that link qualification to professionalisation, is disputed in the literature. There are few sources that recognise assessment as providing a benefit for coach learning, with reports of impression management (Chesterfield, Potrac & Jones, 2010), dissatisfaction (Nelson et al. 2013) and confusion (Jones, Allison & Jake, 2016) characterising the assessment experience. It is therefore essential to explore ways to improve this element of coach education.

Looking outside the limited coach education literature towards education, Bloxham and Carver (2014) make the point that assessment is for one of three reasons: quality assurance, certification, or for learning. It is important to have clear motives behind assessment and we encourage coach education to avoid conflating learning and assessment when activity is about certification. Making this distinction more transparent and explicit has potential to result in a number of positive outcomes. With reduced expectations of learning, a greater emphasis can be placed on the more traditional expectations around assessment such as consistency, reliability and validity (Moss, 1994). For CE behaviour to make a positive contribution to assessment, we suggest that *if* over arching intentions remain transformational and the context is fully considered, effective CEs will have greater success when engaging in a more transactional approach to ensure clarity and purpose for candidates during assessment.

Conclusion and Future Direction

How exactly the interpersonal behaviours required of an effective coach assessor or developer manifest remains unclear and is an area that warrants continued attention. However, it is our assertion that observed behaviour of CEs should be evaluated in multiple sessions, according to contextual variables such as the goal of the session, stage of development, and athletes' background and experience. We also believe that for a fuller understanding of CE behaviour it would be useful to support observations with methods such as stimulated recall (Bruner et al., 2017) that allow for greater accuracy and depth of analysis. Such research aspirations seem well served by a critical realist approach and are appropriately positioned to further develop the excellent contribution made by the TFL workshop (Turnnidge & Côté, 2017) and CLAS coding tool (Turnnidge & Côté, 2019). Finally, although some parallels can undoubtedly be drawn to other sport coaching contexts, this research was characterised by adult coach development and assessment, on a formal coach education course. Given the unique nature of the research setting, views expressed in this paper should therefore be treated with caution.

References

Abraham, A., Collins, D., & Martindale, R. (2006). The coaching schematic: Validation through expert coach consensus. *Journal of Sports Sciences, 24*, 549-564.

Adler, P., & Adler, P. (1987). *Membership roles in field research* (Qualitative research methods). Newbury Park California: Sage Publications.

Arnold, K. (2017). Transformational leadership and employee psychological well-being: A review and directions for future research. *Journal of Occupational Health Psychology, 22*, 381-393.

Arthur, C., Bastardoz, N., & Eklund, R. (2017). Transformational leadership in sport: Current status and future directions. *Current Opinion in Psychology, 16*, 78-83.

Avner, Z., Markula, P., & Denison, J. (2017). Understanding Effective Coaching: A Foucauldian Reading of Current Coach Education Frameworks. *International Sport Coaching Journal*, *4*, 101-109.

Avolio, B. (2011). *Full range leadership development* (2nd ed.). Thousand Oaks, California: SAGE Publications.

Avolio, B. J., & Bass, B. M. (1991). *The full-range of leadership development*. Binghamton. New York: Center for Leadership Studies.

Avolio, B., & Gardner, W. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *Leadership Quarterly, 16*, 315-338.

Barling, J. (2014). *The Science of leadership: Lessons from research for organizational leaders*. New York: Oxford University Press.

Barling, J., Christie, A., & Turner, N. (2008). Pseudo-transformational leadership: Towards the development and test of a model. *Journal of Business Ethics, 81*, 851-861.

Bass, B., & Bass, R. (2009). *The bass handbook of leadership: Theory, research, and managerial applications* (4th ed.). New York: Free Press.

Bass, B., & Riggio, R. (2006). *Transformational leadership* (2nd ed.). Mahwah, New Jersey: L. Erlbaum Associates.

Bass, B., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behaviour. *Leadership Quarterly, 10*, 181–217.

Bernstein, B. (1971). *Class Codes and Control*. London: Routledge.

Bhaskar, R. (2008). *A realist theory of science*. Hoboken: Taylor & Francis.

Bhaskar, R. (2010). Contexts of interdisciplinarity: interdisciplinarity and climate change. In R. Bhaskar, C. Frank, K.G. Hoyer, P, Naess and J. Parker (Eds.) *Interdisciplinarity and climate change: Transforming knowledge and practice for our global future,* (pp. 1-24). London: Routledge.

Birch, J. (2016). Skills - do we really know what kind of knowledge they are? *Sport, Ethics and Philosophy, 10*, 237-250.

Bloxham, S., & Carver, M. (2014). Assessment for learning in higher education. *Assessment & Evaluation in Higher Education, 39*, 123-126.

Bowes, I., & Jones, R. (2006). Working at the edge of chaos: Understanding coaching as a complex, interpersonal system. *The Sport Psychologist, 20*, 235-245.

Bruner, M. W., Boardley, I., Forrest, C., Buckham, S., Root, Z., Allen, V., & Côté, J. (2017). Examining social identity and intrateam moral behaviours in competitive youth ice hockey using stimulated recall. *Journal of Sport Sciences, 35*, 1963–1974.

Burns, J.M. (1978). *Leadership*. New York: Harper & Row.

Callow, N., Smith, M., Hardy, L., Arthur, C., & Hardy, J. (2009). Measurement of transformational leadership and its relationship with team cohesion and performance level. *Journal of Applied Sport Psychology, 21*, 395-412.

Charbonneau, D., Barling, J., & Kelloway, E. (2001). Transformational leadership and sports performance: The mediating role of intrinsic motivation. *Journal of Applied Social Psychology, 31*, 1521-1534.

Chesterfield, G., Potrac, P., & Jones, R. (2010). 'Studentship' and 'impression management' in an advanced soccer coach education award. *Sport, Education and Society 15*, 299– 314.

Christie, A., Barling, J., & Turner, N. (2011). Pseudo-transformational leadership: Model specification and outcomes. *Journal of Applied Social Psychology*, *41*, 2943-2984.

Collins, L., Carson, H. J., & Collins, D. (2016). Metacognition and Professional Judgment and Decision Making in Coaching: Importance, Application and Evaluation. *International Sport Coaching Journal*, *3*, 355-361.

Coombs, P. H. & Ahmed, M. (1974). *Attacking rural poverty: How non-formal education can help.* London: Johns Hopkins University Press.

Côté, J., & Gilbert, W. (2009). An Integrative Definition of Coaching Effectiveness and Expertise. *International Journal of Sports Science & Coaching*, *4*, 307-323.

Cruickshank, A., & Collins, D. (2015). Illuminating and applying "the dark side": Insights from elite team leaders. *Journal of Applied Sport Psychology, 27*, 249-267.

Cruickshank, A., & Collins, D. (2016). Advancing leadership in sport: Time to take off the blinkers? *Sports Medicine (Auckland, New Zealand.), 46*, 1199-204.

Culver, D. & Trudel, P. (2006). Cultivating coaches' communities of practice. In R. Jones, *The sports coach as Educator*. London: Routledge, pp. 97-112.

Cushion, C.J., Armour, K. & Jones, R. (2003). Coach education and continuing professional development: Experience and learning to coach. *QUEST, 55*, 215-230.

Erickson, R.J. (1995). The importance of authenticity for self and society. *Symbolic interaction, 18*, 121-144.

Figgins, S., Smith, M., Knight, C., & Greenlees, I. (2019). A grounded theory of inspirational coach leadership. *Scandinavian Journal of Medicine & Science in Sports, 16*, 78-83.

Garner, P., & Hill, D. (2017). Cultivating a Community of Practice to Enable Coach Development in Alpine Ski Coaches. *International Sport Coaching Journal*, 4, 63-75.

Gilbert, W. D., & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of Teaching in Physical Education*, *21*, 16-34.

Grix, J. (2010). Introducing 'hard' interpretivism and 'q' methodology: Notes from a project on 'county sport partnerships and governance'. *Leisure Studies, 29*, 457-467.

Hay, P., Dickens, S., Crudgington, B., & Engstrom, C. (2012). Exploring the potential of assessment efficacy in sports coaching. *International Journal of Sports Science & Coaching, 7*, 187-198.

Hay, P., & Penney, D. (2009). Proposing conditions for assessment efficacy in physical education. *European Physical Education Review, 15*, 389-405.

Higgs, M. (2009). The good, the bad and the ugly: Leadership and narcissism. *Journal of Change Management, 9*, 165-178.

Horton, P. (2015). The role of the coach. In C. Nash (Ed.) *Practical sports coaching* (pp. 3-15). New York: Routledge.

Jones, R., Allison, W., & Jake, B. (2016). Candidates' experiences of elite FA coach education: Tracking the journey. In W. Allison, A. Abraham, & A Cale, *Advances in Coach Education and Development*, (pp.149-157). London: Routledge.

Jones, R., Morgan, K., & Harris, K. (2012). Developing coaching pedagogy: Seeking a better integration of theory and practice. *Sport, Education & Society*, *17*, 313-329.

Judge, T., Piccolo, R., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly, 20*, 855-875.

Lefebvre, J., Evans, M. B., Turnnidge, J., Gainforth, H. L., & Côté, J. (2016). Describing and classifying coach development programmes: A synthesis of empirical research and applied practice. *International Journal of Sports Science & Coaching, 11*, 887-899.

Lefebvre, J., Turnnidge, J., & Côté, J. (2019). A systematic observation of coach leadership behaviors in youth sport. *Journal of Applied Sport Psychology,* 1-10.

Maccoby, M. (2000). Narcissistic leaders – the incredible pros; the incredible cons. *Harvard Business Review, 78*, pp. 68–79.

Malcolm, D., Pinheiro, C., & Pimenta, N. (2014). Could and should sport coaching become a profession? Some sociological reflections. *International Sport Coaching Journal, 1*, 42-45.

Martindale, A., & Collins, D. (2012). A professional judgment and decision making case study: Reflection-in-Action research. *The Sport Psychologist*, *26*, 500-518.

McQuade, S., & Nash, C. (2015). The role of the coach developer in supporting and guiding coach learning. *International Sport Coaching Journal*, 2, 339-346.

Mills, J. P., & Boardley, I. D. (2017). Advancing Leadership in Sport: Time to "Actually" Take the Blinkers Off? *Sports Medicine, 47*, 565–570.

Morgan, K., Jones, R., Gilbourne, D., & Llewellyn, D. (2013). Innovative approaches in coach education pedagogy. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching,* (pp. 486-496). New York: Routledge.

Moss, P. A. (1994). Can there be validity without reliability? *Educational Researcher*, 23, 5-12.

Nash, C., & Collins, D. (2006). Tacit knowledge in expert coaching: Science or art? *Quest, 58*, 465-477.

Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, nonformal and informal coach learning: A holistic conceptualisation. *International Journal of Sports Science and Coaching, 1*, 247–259.

Nelson, L., Cushion, C., & Potrac, P. (2013) Enhancing the provision of coach education: the recommendations of UK coaching practitioners. *Physical Education and Sport Pedagogy*, *18*, 204-218.

Nichol, A., Hall, E., Vickery, W., & Hayes, P. (2019). Examining the relationships between coaching practice and athlete "outcomes": A systematic review and critical realist critique. *International Sport Coaching Journal, 6*, 13-29.

North, J. (2013). A critical realist approach to theorising coaching practice. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching,* (pp. 133-144). New York, NY: Routledge.

North, J. (2017). *Sport coaching research and practice: Ontology, interdisciplinarity and critical realism* (Routledge research in sports coaching). London: Taylor & Francis.

Pawson, R. (2006). *Evidence-based policy: A realist perspective*. London: Sage publications.

Paquette, K., & Trudel, P. (2018a). The evolution and learner-centered status of a coach education program. *International Sport Coaching Journal, 5*, 24-36.

Paquette, K., & Trudel, P. (2018b). Learner-centred coach education: Practical recommendations for coach development administrators. *International Sport Coaching Journal, 5*, 169-175.

Polkinghorne, J. (1986). *One world: The interaction of science and theology*. London: SPCK.

Rowold, J. (2006). Transformational and Transactional Leadership in Martial Arts. *Journal of Applied Sport Psychology*, *18*, 312-325.

Sayer, R. (2010). *Method in social science: A realist approach (Rev. 2nd ed.)*. London: Routledge.

Schedlitzki, D., & Edwards, G. (2018). *Studying leadership: Traditional and critical approaches* (2nd ed.). London: SAGE.

Schempp, P.G., McCullick, B., & Sannen Mason, I. (2006). The development of expert coaching. In R. Jones, *The sports coach as Educator*. London: Routledge, pp. 145-161.

Schön, D. (1991). *The Reflective Practitioner: How Professionals Think in Action.* New York: Arena.

Smith, N., Tessier, D., Tzioumakis, Y., Quested, E., Appleton, P., Sarrazin, P., Duda, J. L. (2015). Development and validation of the multidimensional motivational climate observation system (MMCOS). *Journal of Sport and Exercise Psychology, 37*, 4–22

Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise, and health: From process to product*. London, UK: Routledge.

Stenling, A., & Tafvelin, S. (2014). Transformational leadership and well-being in sports: The mediating role of need satisfaction. *Journal of Applied Sport Psychology, 26*, 182-196.

Turnnidge, J., & Côté, J. (2017). Transformational coaching workshop: Applying a person-centred approach to coach development programs. *International Sport Coaching Journal, 4*, 314-325.

Turnnidge, J., & Côté, J. (2018). Applying transformational leadership theory to coaching research in youth sport: A systematic literature review. *International Journal of Sport and Exercise Psychology, 16*, 327–342.

Turnnidge, J., & Côté, J. (2019). Observing coaches' leadership behaviours: The development of the coach leadership assessment system (CLAS). *Measurement in Physical Education and Exercise Science,* 1-13.

Watling, C. (2016). The uneasy alliance of assessment and feedback. *Perspectives on Medical Education, 5*, 262-264.

Watling, C., & Ginsburg, S. (2019). Assessment, feedback and the alchemy of learning. *Medical Education, 53*, 76-85.

Webster, C.A., Wellborn, B., Hunt, K., LaFleche, M., Cribbs, J., & Lineberger, B. (2013). Mpower: An observation system for assessing coach autonomy support in high school varsity boys' soccer practices. *International Journal of Sports Science & Coaching, 8*, 741-754.

Werthner, P. &, Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist, 20*, 198-212.

Vella, S., Oades, L., & Crowe, T. (2013). Increasing the effectiveness of formal coach education: Evidence of a parallel process. *International Journal of Sports Science & Coaching, 8*, 417-430.

Vella, S., & Perlman, D. (2014). Mastery, autonomy and transformational approaches to coaching: Common features and applications. *International Sport Coaching Journal, 1*, 173-179.

Vierimaa, M., Turnnidge, J., Evans, M.B., & Côté, J. (2016). Tools and techniques used in the observation of coach behavior. In P.A. Davis (Ed.), *The psychology of effective coaching and management*. New York: Nova Science Publishers.