Loughborough University

This item was submitted to Loughborough's Research Repository by the author.
Items in Figshare are protected by copyright, with all rights reserved, unless otherwise indicated.

Layers of learning in coach developers' practice-theories, preparation and delivery

PLEASE CITE THE PUBLISHED VERSION

https://doi.org/10.1123/iscj.2018-0067

PUBLISHER

Human Kinetics

VERSION

AM (Accepted Manuscript)

PUBLISHER STATEMENT

Accepted author manuscript version reprinted, by permission, from International Sport Coaching Journal, 2019, 6 (3): pp.307-316, https://doi.org/10.1123/iscj.2018-0067. © Human Kinetics, Inc.

LICENCE

CC BY-NC-ND 4.0

REPOSITORY RECORD

Stodter, Anna, and Christopher Cushion. 2019. "Layers of Learning in Coach Developers' Practice-theories, Preparation and Delivery". figshare.

Layers of learning in coach developers' practice-theories, preparation and delivery

Anna Stodter[1] and Christopher J. Cushion[2]

[1]Anglia Ruskin University

[2]Loughborough University

Author Note

Anna Stodter is with the Cambridge Centre for Sport and Exercise Sciences at Anglia Ruskin University, Cambridge, United Kingdom. Christopher Cushion is with the School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, United Kingdom.

The authors wish to acknowledge Andrew Wright for his assistance with the organisation of data and analysis for this paper.

Address author correspondence to Anna Stodter at Anna.Stodter@anglia.ac.uk

Abstract

Despite the centrality of coach developers to formal coach education settings, only a handful of studies have begun to touch upon the role they play in mediating quality learning, while links between different layers of learning and impact on coach learners remains underexplored. This research explored English coach developers' understanding of learning, and the learning frameworks taught to them, through unstructured interviews and participant observation of a generic coach developer training course. Three coach developers were observed delivering formal coach education, to elucidate how understanding was applied in practice. Supporting interviews with 16 coaches attending the course gave an indication of reactions to developers' practice. Combined layers of data were analysed using a three-phase integrated analytic process. In the absence of pertinent evidence-informed coach developer training course design and delivery, implicit 'practice-theories', based on participants' experiences as coaches and coach developers, appeared to inform understanding and practices. Despite acknowledging 'learner centred' learning principles, coach developers experienced challenges implementing these in practice and coach learners perceived confusion and contradictions. Findings are discussed in relation to contemporary ideas around coaches' and coach developers' learning, to highlight potential ways that coach developers could be more effectively prepared and supported.

Keywords: Coach Developers; Professional Development; Coach Learning; Formal Coach Education

Layers of learning in coach developers' practice-theories, preparation and delivery

Recent perspectives concerning the learning and professional development of sport coaches have underlined a need to investigate social, relational, contextual and theoretical issues in increasingly sophisticated and pragmatic empirical approaches (Lyle, 2018; Townsend, Cushion & Smith, 2017). These approaches are aimed to better capture the well-established multifaceted, relational nature of coaching and learning to coach (Cushion, Armour & Jones, 2003), with evidence suggesting quality professional development involves participatory, contextualised opportunities linked to practice and active knowledge construction through social interaction (Phelan & Griffiths, 2018; Stodter & Cushion, 2017). Perceptibly, if the role of impactful coach development is to accelerate learning processes (Lyle, 2007), coach developers play a notable yet often overlooked part in this sociocultural and relational context. Coach developers have a significant influence on the negotiation and legitimisation of coaching practice (Cushion, Griffiths & Armour, 2018; Blackett, Evans & Piggott, 2015), and their skills are crucial to the effectiveness of pedagogies and enabling coaches to learn (Morgan, Jones, Gilbourne & Llewellyn, 2013). Nevertheless, there remains little research on coach developers (Abraham, Morgan, North, et al., 2013), with the existing work being largely instrumental, focusing on the various task demands, professional 'skill sets' and exemplar behaviours associated with the role (Cushion et al., 2018).

Although the demands placed on coach developers are dependent on the overall development approach taken (Morgan et al., 2013), a benchmark requirement is substantial expertise in learning (Abraham et al., 2013; ICCE, 2014). Yet such qualities offered as contributing to an 'effective' coach developer, often appear neatly compartmentalised and disconnected from practice, context and subsequent coaches' learning (e.g. Abraham et al., 2013; McQuade & Nash, 2015). Meanwhile, the origins and development of coach developer

qualities is not well researched or understood. In addition, Cushion at al., (2018) showed that rather than being compartmentalised and existing in isolation, coach developers' practice and professional learning are instead part of a broader system of power relations and interactions in contextualised social practice. However, preparation of coach developers for negotiating these challenges, as well as the links between their own learning and delivery, and the resulting impression on coach learners remain underexplored. This paper goes some way to addressing this by providing evidence for the multiple associated layers of learning in a formal coach education setting involved with the development of coach developers and coach development practices.

Reflecting what is known about how coaches learn (Cushion, Nelson, Armour, et al., 2010), coach development consists of a varied collection of activities that range in formality. Thus coach developers, also referred to in the literature as educators, tutors, facilitators, trainers and coach development administrators (Trudel, Culver & Werthner, 2013), often perform a mixture of formal coach education and non-formal workshop delivery, formal and informal mentoring, evaluating and assessing coaching (McQuade & Nash, 2015). Indeed, the International Coach Developer Framework put together by The International Council for Coaching Excellence (ICCE) adopts the umbrella term 'coach developer' to 'include all those who have undergone training to fulfil one or more of the following roles: coach educators, learning facilitators, presenters, mentors and assessors' (ICCE, 2014, p.6). This definition emphasises the necessity of *training* to set coach developers apart from merely experienced coaches, framing them as 'experts' in learning who can optimise opportunities for coach learners. What this training does or should involve, however, is not defined, and the effectiveness of training for coach developers' subsequent understanding and practice is unknown. There remains little research to evidence the preparation and overall development of

developers (ICCE, 2014), leaving sporting organisations unclear on how they can best support the growth of these practitioners' skills (McQuade & Nash, 2015).

One reason why coach developers require expertise in learning relates to the wide-ranging nature of coach development, with the developer's role influenced by the particular approach taken (Trudel et al., 2013). In contrast with more traditional, standardised and typically technical content-driven forms of educational delivery and certification, a contemporary 'paradigm shift' towards ongoing 'learner centred' and bespoke professional development approaches places greater demands on coach developers (Cassidy & Kidman, 2010). While didactic, instructive presentation positions the coach developer as a 'transmitter' of information to be acquired, participatory and constructivist-informed programmes place more emphasis on pedagogical skills, raising responsibility for subsequent learner interaction, listening and reacting to group exchanges (Jones, Morgan & Harris, 2012; North, 2010; Stoszkowski & Collins, 2017). The shifting role of the coach developer can be represented on a continuum from educational delivery to enabling, facilitation and even developing coaches' capability to learn and self-direct their own future learning (Stoszkowski & Collins, 2017). In practice, it is likely that individual developers must gauge and manage a balance between content delivery and facilitation to meet coach learners' varied needs. The success of contemporary and innovative approaches are largely dependent on the capability and willingness of coach developers to adopt the necessary roles, especially when this requires a departure from long-practiced and deep-rooted reproductive pedagogies (Abraham, Collins & Muir, 2009; Savin-Baden, 2003). Coaching approaches also need to be effectively modelled by educators in their delivery (ICCE, 2014; McCullick, Belcher & Schempp, 2005), creating a 'dual role' whereby developers can simultaneously coach and support others' learning about coaching (Ben-Peretz, Kleeman, Reichenberg & Shimoni, 2010). In order to effectively balance their roles and bring about learning in coach development, developers need to draw

upon particular expertise in, and understanding of, learning and learners (Abraham et al., 2013; ICCE, 2014; Cassidy, Potrac & McKenzie, 2006). Research by Abraham et al. (2013) with 15 experienced coach developer professionals specified the professional skills, required knowledge, typical leadership, management and coaching behaviours that demonstrate understanding of adult learning for coach developers. According to their definition, 'expert' coach developers have a 'broad and deep knowledge base of learning theories and their application' alongside 'a rich set of critiqued experiences within the domain of operation', allowing them to 'develop and monitor relevant learning environments, tasks and communication strategies to meet learning goals' (Abraham et al. 2013, p. 179).

Despite necessary knowledge and expertise being clearly defined, little is known about how coach developers achieve and then implement these (Jones, et al., 2012). In the related world of teacher continuing professional development (CPD), research has identified a clear need for support to enable professional educators to engage learners (Armour, 2010). This literature has emphasised educators' professional learning as taking place within socially and culturally situated work contexts, with inextricable bonds formed between learning and identity (e.g. Brody & Hadar, 2011; Cochran-Smith, 2003, Swennen & Bates, 2010). Similarly, in sport coaching, it is suggested that due to their biography as coaches, products of coach education systems and later educator training, coach developers are shaped by, and simultaneously shaping of learning cultures and contexts (Cushion et al., 2018; Nelson, Cushion, Potrac, & Groom, 2014). Certain practices, expectations and ways of doing and being become considered 'normal' and reproduced in day-to-day activities (Cushion et al., 2018; Piggott, 2012). Although coach developers may not articulate clear beliefs about learning, their practice invariably rests upon assumptions deeply embedded in culture (Light, 2008). Implicit theories or 'folk pedagogies' (Bruner, 1999), rooted in personal experience and strong beliefs about how people learn best, are reflected in customs and overt behaviours. For example, normative

beliefs about 'good' teaching are associated with particular educator 'positionings', then manifested in use of strategies like modeling to prioritise learners' needs or technical feedback and correction (Vanassche & Kelchtermans, 2014). Thus, different accepted practices in professional development reflect diverging assumptions about learning, pedagogy and teaching.

Shulman (2005) takes a broader view in referring to sets of disciplinary assumptions and normative forms of learning and teaching as 'signature pedagogies': pervasive types of teaching that shape the fundamental ways practitioners are educated for their professions, implicitly defining what counts as knowledge and how things become known. He separates three dimensions of signature pedagogies: surface structure, deep structure, and implicit structure. Surface structures are concrete operational acts of teaching and learning, demonstrating, questioning and interacting, while deep structures reflect a set of assumptions of how best to impart a certain body of knowledge and know-how. Implicit structure is a moral dimension that comprises a set of beliefs about professional attitudes, values and dispositions (Shulman, 2005, p. 55). These distinctions are useful because what people believe in does not always duplicate what they actually do; in other words, their espoused theory may not match their observed 'theory-in-use' (Argyris & Schön, 1974). Indeed, a recent study showed that while teacher developers articulated strong views about the importance of practical learning opportunities, these beliefs did not always materialise when delivering a formal course, with variations apparent in actual time dedicated to practical vs. theoretical learning opportunities, as well as quality of implementation between developers (Makopoulou, 2018). More fundamentally, while such habits and implicit folk pedagogies or practice theories can act as useful scaffolds for complex professional learning, they are worth reviewing critically as potentially limiting or dangerous sources of rigidity and reproduction (Armour, 2010; Shulman, 2005).

Importantly, sport coaching scholarship is yet to scrutinise and evidence these ideas or link surface structure behaviours to deep structure 'practice-theories'. As in teaching, coaching not only needs to articulate and interpret accepted practice theories, but also to look at the nuance of how intentions connect to practices (Makopoulou, 2018), in order to find out how these factors might be positively influenced (Lyle, 2018). The reproduction of assumptions about learning apparent through surface, deep and implicit structures of signature pedagogies, through the layers of coach developer training, to coach developer, to coach (and then to athlete) are yet to be explored. The current study therefore, aimed to extend existing research on coach developers by taking into account their training and linking it to perspectives, intentions and practices, alongside learners' reactions to this practice. Accordingly, it adopts an *in situ*, multi-layered approach within the context of formal coach education, but with the coach developer, and learning, central (Cushion et al., 2018). Articulating and interpreting links between coach developers' deep structure 'practice theories', the learning frameworks apparent in their training, surface structure behaviours and resulting coach learning, can contribute insights into an underexplored yet prominent aspect of coach development. Beginning to unpack the ways coach developers are prepared to, intend to, and then actually do support coaches to learn, will pave the way towards future understanding and guidance for more effective coach learning opportunities (Makopoulou, 2018).

Method

Context

Coach developers were employed full-time within a large national Sport Governing Body (SGB) that provides extensive coach education pathways, continuing professional development and mentoring, as well as a licenced coach developer pathway. The latter consisted of six stages whereby developers were identified, trained and assessed, familiarised with specific courses,

observed others, shared course delivery, then completed the process. Coach developers' primary preparation therefore took place in stage two, with completion of the SGB's generic coach developer training (GDT), a minimum entry requirement for UK Coaching Certificate (UKCC) Level 3 and above qualified coaches to deliver coach education in the sport. The coach developers were involved in the design and delivery of a formal age-appropriate youth coach education course, part of a new national youth-specific coaching qualification pathway. The research reported here forms part of a wider project that evaluated the impact of this course on coaches' learning.

Participants

Following institutional ethics approval, three full-time professional male coach developers and 16 coach learners (15 male, 1 female) were purposively selected to take part in the study. Sampling was theoretically driven, with participants selected due to their particular characteristics as either coach developers or coach 'candidates' on a formal coach education course delivered by the coach developers; the aim being to create a theoretically meaningful, 'information rich' sample (Patton, 1990).

The coach developers, with a mean age of 47 years (SD = 12.0, R = 35-59), had been working as coach development practitioners for a mean of 18.8 years (SD = 10.7, R = 12-31). All three were SGB licenced and were responsible for the design and delivery of an age-appropriate youth coaching course. This course was framed as 'progressive' and packaged as a 'truly athlete centred approach' to the coaching and development of young athletes. The intended outcomes included enabling coaches to 'design practices specific to the needs of individual athletes' and 'link the design of practices to match day and athletes' role specific requirements'. Working within teams of four coach developers, they delivered the course that comprised of two weekends' contact time, one month apart. Each weekend involved a mix of

classroom-based delivery; group work; 'showcase' coaching; and simulated coaching practice with educator feedback. Through the SGB's candidate lists for the youth coaching course, coach learners (M age = 34.3 years, SD = 6.9, R = 22.4 – 43.7) with an average of 6.7 years coaching experience (SD = 3.3, R = 2 - 14) were invited to take part. Each was qualified to UKCC Level 2 or above, and primarily working with sport participants of ages ranging from three to nineteen in a mixture of settings from participation to performance. Informed consent was obtained from all participants.

Design and procedure

This research positioned the coach developers as the central unit of analysis, each of whom in combination worked across four cohorts of the same youth coaching course. To enable a multi-layered and integrated investigation of the phenomenon of coach developers' preparation and practice within the course context, interview and observational data were collected by the first author, a UKCC Level 2 qualified coach with six years' youth coaching experience, across three levels and phases: coach developer training, coach developers' practice, and coach reactions.

Phase one. Participant observation was employed to gain insights into coach developers' preparation on the SGB's generic coach developer training. This three day long residential course was a prerequisite qualification for all SGB developers who deliver formal coach education courses. It aimed to 'support and develop the teachers' of the sport, covering modelling of good practice, planning using a learning cycle, learning styles, inclusive methods and activation and engagement of individuals and groups. Primarily delivered through group work and interactive activities, the training culminated in an assessment involving a ten minute individual presentation. Following completion, developers received individual action plans that allowed them to proceed to course specific familiarisation, or recommended deferral or

withdrawal from the programme if they were deemed not ready to proceed. Audio recordings were taken on all training activities, generating 871 minutes of data alongside field notes, hand-written during breaks and at the end of each day of training. Similar to previous studies in coach education (e.g. Gilbert & Trudel, 1999; Stodter & Cushion, 2014), notes were taken on content, the training activities that took place, developers' reactions and learning, general atmosphere, physical settings and timings. Materials in the form of the training handbook were also examined for corresponding content and assumptions relating to learning. Participant observation thus generated a combination of notes, transcribed quotes and descriptions of events such as tasks, training activities and social interactions.

Phase two. The coach developers' practice was examined using observations of the youth coaching course they led, across the four different cohorts. In line with previous studies in formal coach education settings (e.g. Gilbert & Trudel, 1999; Stodter & Cushion, 2014), non-participant observation allowed more structured notes to be taken on coach developers' practices, coaches' learning, feedback and assessment, coaching practice, atmosphere, content and other comments, as well as timings. Course materials were also collected in the form of a 'participant pack' and audio recordings of classroom activities. A key part of this phase was unstructured interviews that were conducted with each participating coach developer during breaks in the youth coaching courses (cf. Makopoulou, 2018). Interviews lasted 30 minutes, yielding a total of 91 minutes of audio data. Questions centred on developers' views on coaches' learning, for example 'do you think that coaches learn in the same way that players learn?' and 'how do you know that will assist coaches' learning?', while remaining flexible to the situational and time constraints as well as the answers given.

Phase three. Finally, six months after completing the youth coaching course, coach learners took part in semi-structured interviews face-to-face or by phone. Ranging from 30 to

85 minutes long, and generating 648 combined minutes, open-ended questions focused on coaches' perspectives of the course. For example, coaches were asked 'what did you learn from the course?' and 'what did you think of the teaching you received on the course?' All coach learner and coach developer interviews were audio recorded and transcribed verbatim. The methods in combination gave voice and perspectives to both coach developers and coach learners, demonstrated practice and interactions, and enabled links to be drawn between developers' preparation, their coach development practices *in situ*, and coach learners' reactions to these practices.

Analysis

Aligning with the three levels of data collection, a three-phase integrated analytic process was adopted with similar principles and procedures to both thematic analysis and grounded theory (e.g. Cushion et al., 2018; Makopoulou, 2018). First, coach developer interviews were examined, subjected to coding, and organised into initial themes relating to views on learning, the origins of these views, and perceived practices. For example, the excerpt, 'I think you have got to again recognise the differences' was coded as 'individual differences', while 'in terms of how do they learn best, I think one of the things is they have to have a bank of experiences to call upon and then our job, for me, is to try and put it in the context of those experiences' was coded as 'relate to learners' existing experience'. These codes were assembled together as aspects of an initial theme named 'individual learners'. The next phase involved reviewing and developing themes, and generating new dimensions that were evident within the broad areas of interest. This process occurred through matching, constant comparison and integration of GDT observation data. Here, excerpts from audio recordings such as, 'everyone's got a different starting point' and 'it's about self, it's about the learner looking after their own learning needs' were grouped with 'individual learners' to develop a

broader theme. The third layer of data, from structured observations of coach developers' practice and coach interviews, were then deductively combined with the themes to further refine them and provide depth. For instance, the following quote, 'there's such a variety of coaches here even. We've all got different problems and people don't always appreciate that I don't think; it's not, it can't be one-size-fits-all, and that's how it's put across to you sometimes', was coded as 'one-size-fits-all' and added learners' experiences as a further, contrasting, dimension to the individual learners theme. Analysis based on an integrative logic allowed for interaction and linkages between the different components of the study (Mason, 2006), eventually creating three themes that ran through the various layers of this context of coach development. These were; complexity and challenges in learning, active learning, and individual learners.

Results and Discussion

Results are reported within three themes centring on how coach developers understood learning as underpinning 'practice-theories'. Each theme will be explained in turn to demonstrate links to coach developers' training and preparation, their delivery of formal coach education, and coaches' perceptions of this delivery. Interview, observations and field-note excerpts relating to each theme are provided to offer illustrations of the key points, and identified by initials and participant number (Coach Developer = CD, Generic Developer Training = GDT, Coach = C).

Complexity and challenges in learning

Coach developers' understanding of coaches' learning was characterised by a variety of related practice theories, with a key theme the inherent complexity and challenges. For example, CD3 acknowledged that coaches' learning is not a straightforward process:

> That's the whole process of learning is that you challenge and change and you chop based on the more information that you gather, and I accept that there will be peaks and troughs and you're on this roller coaster and that you're not always going to go on an upward plane.

Aligning with these assumptions, there was frequent reference to coaches learning from trial and error and difficulties, conceptualised as 'the proverbial train crash' (CD2). Echoing constructivist-informed approaches (Schunk, 2012), these ideas about the characteristics of learning were also apparent in the generic coach developer training, which advocated that 'it's about being persistent, because learning is messy, there will be blockages at times, when you're like I didn't quite get that...And it's not an easy subject sometimes' (GDT).

At the same time however, the coach developers displayed contradictory notions of learning as easily defined and systematic. Drawing upon underpinning approaches to enhancing learning that can be classified as cognitive-behaviourist (Schunk, 2012), they talked about 'constantly reinforcing the messages' (CD2), 'adding bits on' (CD1), and referred to simplified personal models:

> They want two things, they want curriculum and they want confirmation…cause that's just learning principles. (CD3)

Although these underpinning models or approaches to learning were not explicit in the coach developers' training, the GDT course was grounded in similarly straightforward frameworks. Primarily, a Sport Governing Body-specific, four stage cyclical 'learning model' that 'brings all our understanding of learning into one system' (GDT) formed the basis of GDT design and delivery. The learning cycle was used to give structure to coach development practice, postulating that any learning experience should be organised sequentially to 'connect',

'activate', 'demonstrate', then 'consolidate' learning. Rather than drawing upon specified evidence *of* learning and 'what learning is' however, this constituted an idealistic model *for* structuring and apparently enhancing learning (Cushion, Armour & Jones, 2006), with the implication that learning happens unproblematically by following each stage of the cycle. Rather than accounting for the acknowledged complexity of learning, coach developers were simply encouraged to 'remember the four-stage learning cycle', as illustrated by field notes describing one GDT activity:

> Task: groups bid for a 'learning contract' to market learning across the sport. They create a five-minute presentation of the marketing strategy to present to the 'chairman of the board' (the GDT trainer). The trainer is deliberately 'obtrusive' when questioning presenters. During the debrief, he says that the task should highlight the importance of using the four-stage learning cycle and to refer back to that in difficult times.

When coach developers delivered formal coach education, there was very little explicit reference to the cycle, although C1 remarked that 'I think the whole learning cycle and learning process is really beginning to work.' Yet coach learners expressed a sense of confusion and difficulty, in particular in reconciling the coach developers' messages with their previous learning. One explained being 'caught between, do I do it like that, or do it like this. The old and the new, yeah…I just found it confusing' (C6). This uncomfortable 'disjuncture', arising from conflict between new material and an individual's existing biography, presents a critical moment of potential for learning (Jarvis, 2006). However, some coaches felt unsupported by developers in adapting their cognitive structures to re-establish accordance with the learning experience; with one expressing that 'they just leave you to just go and get on with it' (C3). Observations of coach developers' practices indicated that some did attempt to work with

complexity and challenges in learning, for example through an activity where coaches identified the following:

> Three areas where you've had something confirmed, something's been a challenge for you, or whether you've collected something new; and then any questions that you have at all, let's put them up there and let's deal with those issues. (CD3)

This activity was not applied across the four observed course cohorts, reflecting individual developers' varied practice and understanding of learning according to their own biographies. In the absence of nuanced training and preparation that enabled developers to effectively deal with the complexity and challenges of coaches' learning, developers relied on their own ideas based on life experiences and 'reading stuff about it' to 'support and confirm' (CD2) their practices. Coach developers equated coaches' learning to their own previous learning experiences as coaches, in their wider job roles, and even as players of the sport. In the words of CD3, 'I can only go on my experiences as a coach and as a coach educator through things that I've been exposed to'. This led to a variety of established individual 'common sense' (CD1) practices drawing upon a central 'signature' sport coaching pedagogy of learning through accumulated practical experience (Shulman, 2005). This reliance on individual interpretations of experiences resulted in inconsistency between developers, and perceptions of ambiguity from coach learners:

> Some of it's become mixed messages because some of the staff delivering it were saying: this is the way you do it, this is how it's done. Let the game – they teach you to, you know, let them make mistakes. And then on the flip side you go down two weeks later, and you've a different coach developer: no, no if there's a problem you just need to go in and sort it out. And then that's caused a lot of confusion, its worrying. (C16)

As CD1 acknowledged, 'I don't work the same as [CD2], but the philosophy and the ideas behind it are similar, but they are not the same.' Indeed, generic developer training enabled and encouraged the reproduction of individually specific practice theories based on previous learning experiences, while consolidating the persistence of the signature pedagogy (Shulman, 2005), for example through the following activity:

> Think about what helped you learn best and list specific things that helped you learn. Then who helped you best, not just how, then think of strengths/qualities/what they did that inspired you. The most important to you. Creating your own philosophy. (GDT)

Active learning

A second underpinning assumption placed great emphasis on coaches' learning being active, participatory and experiential. Learning was portrayed as occurring through coaches being involved in interactions, 'having a go', practicing and experimenting. As one coach developer explained, 'people like to be involved, so the more we involve them and the less time they spend sitting down watching loads and loads of PowerPoint's, the better' (CD1), while another emphasised that 'learning means they have got to get off their backsides and do stuff, get out and experience things' (CD2). These constructivist-themed 'active learning' assumptions (e.g. Schunk, 2012) aligned in some ways with the 'player centred', game related coaching approach advocated by the course itself, and coach developers' practice was intended to model these same principles:

> If you talk about creating the same environment [as for players' learning], we do try and create an environment where they [coaches] are comfortable, we do try and create an environment where we want them to join in; we do create all that sort of stuff. We

399 do give an opportunity to talk, chat, experiment, feedback their ideas and all that sort
400 of stuff. (CD1)

401 There were clear parallels between these learning assumptions and aspects of the
402 generic developer training, which was introduced as 'experiential learning, you will be
403 involved in different ways and at times you might think 'I like that', and jot it down, 'I could
404 use that there and steal it' and that's what this three days are here for' (GDT). The GDT learning
405 cycle placed emphasis on 'activating' learning through posing problems and inviting solutions,
406 and materials featured a hierarchical 'learning pyramid' (e.g. Lalley & Miller, 2007)
407 advocating the effectiveness of 'teaching it to someone else' or 'working it out for yourself'
408 rather than 'listening' or 'reading' as methods of learning in classrooms. This meant that the
409 training was delivered wholly through varied interactive individual and group tasks, a style
410 mirrored on the formal coaching course run by the coach developers. Coach learners spent over
411 half of their on-course time taking part in practical sessions, with the second-highest proportion
412 of time spent in group work or discussion tasks. The emphasis on 'active learning
413 opportunities' appeared to align well with coaching practitioners' preferences for involvement
414 and interaction with other coaches. They felt that these activities helped them understand 'what
415 worked' (C14) and made 'practices stick in the mind' (C5).

416 Despite the espoused constructivist-themed practice theory evident through interview
417 and GDT observational data, some challenges were encountered by coach developers in
418 implementing this, particularly in relation to the context of learning. Tensions were apparent
419 between traditional classroom-based course delivery, seen as 'giving information and tools'
420 (CD3) to coach learners, combined with practical 'showcase' and simulated coaching sessions,
421 and connections to coaches' subsequent practice outside of the course setting. The prominence
422 afforded to 'gold standard' coach developer demonstrations followed by practice sessions

meant that coaches were expected to learn by modelling the required coaching behaviours and receiving reinforcing negative and positive feedback. Although many coaches felt that the 'best thing was you get to do a session and they feed back on it' (C3), and developers verbally emphasised their demonstrations as just one way of doing things, this form of delivery left some individuals feeling the need to outwardly mimic the developers' style (Chesterfield, Potrac & Jones, 2010), stating 'you have to do it their way, that's the difficult thing, your freedom has to go out of the window' (C7). Conceptualised as reinforcement, feedback is a central concern of behaviourist learning theories (Tusting & Barton, 2003), and in 'training' learners to respond in a certain, correct, way. As one coach learner explained, developers' practice therefore contrasted with their espoused theory:

> The philosophy there, they're sort of saying is that children learn through doing stuff and that seems to be what they've been saying throughout the course, but I just felt that, from all of the courses I've been on, it's kind of like they don't really follow that philosophy in the way they're teaching the adult coaches on the course, it's much more of a kind of, this is how we want you to do it, here's a demonstration, you go and do it, if you don't do it quite how they've done it, then it's like, no we don't want you to do it like that, we want you to do it like this. (C1)

While aspiring to relate learning to coaches' previous experiences and current practice contexts, this de-contextualised, behaviourist interpretation of constructivist-informed delivery left coach developers merely able to 'raise awareness' (CD1) around certain coaching issues or topics. Responsibility was shifted onto coach learners to try things out and learn instead, without support, in their own authentic day-to-day practice settings. In the words of CD1,

> Because it is not real, it is not the real world, it is showcasing and just putting on bits, so I don't function particularly well in this environment.

> I don't think you learn it on the course, I think you learn it when you go out and do it, that is the thing. Then you learn to become the coach you want to become and you learn the stuff that works well for you.

Individual learners

A final theme of coach developers' understanding of learning concerned individual learners, their differences and needs. Each of the developers talked about having 'a variety of people in the room' (CD1), 'all at individual stages' (CD3) and 'recognising the difference' (CD2). This was briefly acknowledged in coach developers' training through discussions that 'every course is going to be different due to the needs of your students' and 'everyone's got a different starting point, everyone will have a different journey when they leave the course' (GDT). Individual learners' differing motivations or willingness to learn was a further aspect of this theme. Coach developers perceived that some coaches are open to trying new ideas and learning, while others attend formal education simply to gain the qualification. As CD1 commented, 'the ones that want to change will change'. These perspectives mirrored the GDT statement that adult learning is 'about self, it's about learners looking after their own learning needs'. Despite verbal recognition however, general frameworks that failed to address individual learning were used to support coach developers' preparation. For example, training materials and delivery explained what 'adults need in their learning' (GDT) based on Maslow's hierarchy of needs, which has been criticised for a lack of empirical support, rigour and overall relevance to learning (Coulter, Gilchrist, Mallett & Carey, 2016). Meanwhile, the idea of individualised learning was explained only in relation to the first, 'connect' stage of the GDT learning cycle, through surface-level activities that promoted getting to know names and each other, presented as 'little connectors' or ways to relate content to individuals. Detail of how to work with individuals' differing starting points and needs was therefore overlooked.

In practice, then, although coach developers tried 'to meet the [coaches'] needs, I try to feed information that's relevant to them' (CD3), course delivery followed the same format for each learner and developers encountered challenges with limited knowledge of individuals. As one coach developer put it, 'half the problem is I have no idea about these people' (CD1), resulting in reliance on a flawed 'idea of where they are at' (CD2) based on universal course pre-requisites. In practice, this engendered somewhat 'one-size-fits-all' delivery that was noted by coach learners: 'it's really generic…you need to spend more time coaching and they need to know what your capabilities are to be able to help you' (C10). In an extension of this issue, coach developers recognised, yet were unable to work with, the additional subtlety of unevenness of coaches' learning across the course cohort. Received learning was different from the intended learning 'set up' by coach developers, and also varied between individuals:

> It is hard, people get different things from courses, they walk away with different stuff and they walk away with bits and pieces that they have got and they fit into stuff that they already do and people will always say 'you always pick up something', well yes but do you use it. (CD1)

This issue was 'almost impossible' (CD1) to overcome within the confines of a short, de-contextualised formal coach education course with no continuity or follow-up, resonating with familiar criticisms of such learning situations (Cushion et al., 2010). Nevertheless, there were opportunities to utilise the significant set of skills involved in tailoring individual provision through supporting, nurturing and challenging learning (Makopoulou, 2018). Developers noted that SGB staff working regionally were better able to build knowledge and relationships with individuals, following and supporting learners' development over a longer period of time, although this occurred on a serendipitous basis: 'two or three months down the

line hopefully I will bump into them and we'll have a debate about stuff they have tried, but only if we have that support out and about for them' (CD2).

General Discussion

Taken together, the three themes of coach developers' deep structure (Shulman, 2005) practice theories constitute an alignment to implicit 'learner centred' interpretations of constructivist assumptions of learning (Schunk 2012) that is complex, active and individualised. Coach developers' training, in contrast, was largely driven by simplified, generic frameworks for learning that recognised but did not adequately tackle these essential elements of the process (Cushion et al., 2006). The GDT suffered from the promotion of popular learning myths such as learning pyramids, deemed 'the Loch Ness Monster of educational theory' (De Bruyckere, Kirschner & Hulshof, 2015. p.33) due to their persistence and false claims about learning. This worrying propagation of flawed pseudoscientific theories jeopardises the quality of coach development and the wider credibility of coaching as a legitimate profession (De Bruyckere et al., 2015). In addition, a divergence or 'epistemological gap' (Light, 2008) became apparent between coach developers' espoused learning theories and the observed theories-in-use of both their training and delivery of formal coach education. Although coach developers were comfortable with traditional delivery of content such as showcase sessions and passing on technical coaching knowledge, they experienced challenges relating to coaches' day-to-day learning contexts as well as knowledge of individuals across cohorts. This meant that they ultimately settled for raising coaches' awareness around certain topics rather than impacting upon meaningful learning. Although coach developers were aware of the characteristics of coaches' learning through their several years of varied experiences, a broad and deep expertise in learning (e.g. Abraham et al., 2013) and practice was limited to some extent by the simplified nature of frameworks employed in their generic developer

training. This situation left developers feeling underprepared and restricted in developing others, using predominantly self-taught knowledge:

> The only training we have is two days generic developer training, that is all we have, then we are expected to go and do a job like this. And we just do our best, we just do what we can do and we just try and make it a good experience for people and we give them some information that they might be able to use, that is as far as we can go really. (CD1)

The multiple layers of evidence in this study highlights drawbacks to coach developers' reliance on their own personal practice theories, derived largely from several years of experience of 'what works' for them as developers, coaches and even sport participants (Cassidy & Kidman, 2010). With a lack of critical scrutiny of the quality and meaning of such experiences, not addressed by their training, the learning process was assumed to be equivalent across these different domains. Moreover, as coach developers progress through the 'system' they learn to value certain types of knowledge over others and, in turn, perpetuate these perspectives (Cushion, et al., 2003). Not unlike coaches (e.g. Cushion et al., 2003; Piggott, 2012), developers evolved an accepted 'common sense' approach with a strong cultural element and these discourses helped produce and reproduce coaching, in turn giving current practices legitimacy.

This approach limited the provision of adaptable, individualised pedagogical strategies with heightened relevance to coach learners' realities and practical needs (Cushion et al., 2003; Piggott, 2012). While positioned as active learners with different needs, learner subjectivity was, in fact, suppressed. Instead, learners were recipients of coach developers' universalised learning frameworks that often advocated a singular or 'one-size-fits-all' approach seeming to contradict athlete centeredness, and deny, or minimize, individual difference (Cushion, 2013).

In this sense, coach developers engaged with naïve constructivism (Cushion, 2013) and, as a result of their differing biographies, constrained knowledge of individuals, and understanding of how to cater for individual differences, an inconsistency of practice and learner confusion was evident.

Similar to findings on short CPD courses with physical education teacher educators, there were variations in the ways different developers structured and supported learning, accompanied by mismatches between overall intentions and practice (Makopoulou, 2018). Across all three themes, it was apparent that developers' well-intentioned practice theories did not straightforwardly materialise in practice, characterised by struggles to help learners overcome potentially powerful 'disequilibrium', inadvertent limiting of experimentation with new ideas, and failure to individualise provision. Although the context of a short formal course limited what was feasible, activities that foster the debate, experimentation and rationalisation of pedagogical strategies and draw upon and challenge individual coaches' existing practices in non-threatening ways would better align with developers' constructivist interpretations of professional learning (Makopoulou, 2018). It is important to consider how developers can be made aware of potential intention-practice mismatches, and be better prepared to implement such activities with the skills necessary to effectively maximise participants' learning from them in short-course settings. Indeed, there was some indication of assumptions that if one is a 'good' coach, this expertise can and will automatically carry over to working with coach learners, without extensive additional preparation (Zeichner, 2005). Although the International Council for Coaching Excellence's Coach Developer Framework (ICCE, 2017) emphasises *training* in defining coach developers, this evidence suggests *quality* of training and wider preparation is crucial in maximising developers' effectiveness in practice.

Considering the findings alongside research with teacher educators, quality professional training and preparation should strike a balance between honouring the autonomy of coach developers to utilise and critically reflect on their various experiences, and utilising evidence-informed frameworks based on strong empirical data (Ben-Peretz et al., 2010; De Bruyckere et al., 2015). Integrating the two can lead to improved practice alongside conceptual insights, at the same time emphasising interpersonal, social and contextual aspects of learning (Ben-Peretz et al., 2010). Scholars in sport coaching have for a number of years advocated that to better inform practice, there is a need for more realistic, empirically grounded representations of coaching processes (e.g. Cushion et al., 2006). In coach learning specifically, recent research has used practice-linked data to build a more sophisticated, evidence-based framework of the learning process, which elaborates the role of individual biography and context in 'filtering' concepts to construct knowledge and practice (Stodter & Cushion, 2017). While coach developers noted some aspects of coaches' learning relevant to this process, such as picking up 'bits and pieces' from a course, the two key areas of challenge experienced by coach developers also relate directly to the central 'double-loop' filter process. Such evidence-based frameworks could be used to enhance the impact of coach developers in overcoming these and other challenges, by making connections with practice and integration into coach developer training (Lyle, 2018; Cushion et al., 2006). Alongside this, if personal experiences and thus implicit learning theories or folk pedagogies remain unseen and unchallenged, it is likely that coach developers may never realise their influence and the ways in which powerful assumptions about what is best for learners guides what they do (Armour, 2010). Although educators might prefer a more instrumental approach through the provision of practical tools to implement with learners, the current evidence supports suggestions that a deeper understanding of personal implicit theories, and how to apply theoretical frameworks, based on critiqued experiences is most effective (Abraham et al., 2013). Coach developers, akin to

teacher educators, ultimately develop within a community of others in an 'extended journey' along a career path (Cushion et al., 2018; Brody & Hadar, 2011). There also may be merit then to the continual recruitment of more diverse educators to create a longer-term ability to focus on pedagogical strategies while challenging culturally ingrained beliefs and assumptions (Jacobs, Assaf & Lee, 2011). Sporting Governing Bodies may also wish to plan for the staffing of formal coach education courses to balance different coach developer biographies and practice theories, perhaps even with consideration of a potential 'best fit' for learners. These ideas will remain speculative however until further research elucidates the specific needs and learning processes of coach developers themselves, in order to plan more useful professional preparation and ultimately improve impacts on coach learners. Indeed, a pertinent question that remains to be evidenced is whether 'better' coach developer preparation would have any greater impact on coaches and coaching (Lyle, 2018).

Limitations

The data presented here is limited by a sample size of three coach developers, which despite the added layers of data from developer training, coach education and coach learners, provides only a 'snapshot' of practice around one particular formal coach education course. Therefore caution is encouraged in generalising findings to contexts dissimilar to the one described here. The preceding discussion has highlighted the commonality of aspects of this case to other work in coach and teacher development, suggesting that practitioners in comparable learning environments may recognise similarities and differences to their own experiences, ideally stimulating debate around key issues in coach development (Smith, 2018). In collecting and analysing the data, the researchers brought a set of assumptions linked to their backgrounds in the sport and previous experiences of having been educated by the SGB. Being a visible 'outsider' as a young female researcher in a context dominated by older males, within

a culture of suspicion and anti-intellectualism, there may have been a lack of willingness from participants to share their experiences. However, following rapport building across four course cohorts, the data suggests participants were honest and open despite the added constraints of time and location in conducting interviews during opportune breaks in course delivery. This situation did inhibit in-depth investigation of coach developers' wider biographies. Fundamentally, in the absence of operationalised and easily measurable learning outcomes, it is extremely challenging to identify the impact of coach developer training and preparation, and likewise formal coach education courses. Indeed, investigating intended and observed outcomes may facilitate necessary pragmatism as to what can realistically be expected of short, initial training episodes (Lyle, 2018). Tracking coach developers longitudinally through such training as one likely small part of their wider development would provide more robust evidence upon which to draw more functional conclusions.

Conclusion

This study aimed to provide insights into the underlying learning practice theories of coach developers, drawing connections between these and their training, observed practices, and coach learners' reactions to this practice. Themes relating to the complexity and challenges of learning, active learning, and individual learners made up coach developers' understanding of coaches' learning. Aspects of these practice theory themes were apparent within a generic developer training course, however in the absence of detailed, evidence-based guiding theoretical frameworks, developers relied on their experiences and encountered problems in generating impactful practice on a formal coach education course. Coach learners were subject to the resulting epistemological gap between developers' espoused theories and observed theories-in-use, experiencing inconsistencies in pedagogical practice and confusion. The results add nuance to existing recent research suggesting that coach developers' practice and

preparation is multifaceted, challenging, and worthy of further investigation on a larger and more in-depth basis (e.g. Cushion et al., 2018). Articulating and interpreting deep structure learning assumptions (Shulman, 2005), which in this study appeared to be derived from the experiences of individuals over various levels of coach developer to coach and sport participant, is crucial in order to investigate how these might be positively influenced (Lyle, 2018). Challenging 'common sense' implicit learning theories through critical reflection on experiences and assumptions and raising awareness of observed practice, combined with the integration of evidence-based theories *of* learning, may be a fruitful approach in the preparation of coach developers. However, research that takes a multi-layered, longitudinal *in situ* view is necessary to more appropriately understand how best to go about supporting and enhancing the impact of coach developers on coaches and coaching.

References

Abraham, A., Collins, D., & Muir, B. (2009). Developing expert coaches requires expert coach development: Replacing serendipity with orchestration. In A. Lorenzo, S. J. Ibanez & E. Ortega (Eds.), *Aportaciones Teoricas Y Practicas Para El Baloncesto Del Futuro*. Sevilla: Wanceulen Editorial Deportiva.

Abraham, A., Morgan, G., North, J., Muir, B., Duffy, P., Allison, W., Cale, A., & Hodgson, R. (2013). Task analysis of coach developers: applications to the FA Youth coach educator role. In H. Chaudet, L. Pellegrin, & N. Bonnardel (Eds.), *Proceedings of the 11th international conference on naturalistic decision making (NDN 2013), Marseille, France, 21-24 May 2013* (pp.21-24). Paris: Arpege Science Publishing.

Agyris, C., & Schön, D.A. (1974). *Organisational learning: A theory in action perspective.* Reading, MA: Addison-Wesley.

661 Armour, K. (2010). The learning coach…the learning approach. In J. Lyle & C.J. Cushion
662 (Eds.), *Sports Coaching: Professionalisation and Practice* (pp. 153-164). China:
663 Elsevier.

664 Ben-Peretz, M., Kleeman, S., Reichenberg, R., & Shimoni, S. (2010). Educators of educators:
665 their goals, perceptions and practices. *Professional Development in Education, 36*(1-2),
666 111-129.

667 Blackett, D., Evans, A., & Piggott, D. (2015). Why the best way of learning to coach the game
668 is playing the game; conceptualizing 'fast-tracked' high-performance coaching
669 pathways. *Sport, Education and Society,* 22(6), 744-758.

670 Brody, D., & Hadar, L., (2011). "I speak prose and I now know it." Personal development
671 trajectories among teacher educators in a professional development community.
672 *Teaching and Teacher Education, 27,* 1223-1234.

673 Bruner, J., (1999). Folk pedagogies. In B. Leach & B. Moon (Eds.), *Learners and Pedagogy*
674 (pp. 4-20). London: The Open University.

675 Cassidy, T., & Kidman, L. (2010). Initiating a national coaching curriculum: a paradigmatic
676 shift? *Physical Education and Sport Pedagogy, 15*(3), 307-322.

677 Cassidy, T., Potrac, P., & McKenzie, A. (2006). Evaluating and reflecting on a coach education
678 initiative: The CoDe of rugby. *The Sport Psychologist, 20*(2), 145-161.

679 Chesterfield, G., Potrac, P., & Jones, R. (2010). 'Studentship' and 'impression management'
680 in an advanced soccer coach education award. *Sport, Education and Society, 15(3),*
681 299-314.

Cochran-Smith, M. (2003). Learning and unlearning: the education of teacher educators. *Teaching and Teacher Education, 19*(1), 5-28.

Coulter, T., Gilchrist, M., Mallett, C., & Carey, A. (2016). Abraham Maslow: hierarchy of coach and athlete needs. In L. Nelson, R. Groom and P. Potrac (Eds.), *Learning in sports coaching: theory and application* (pp.63-74). Abingdon: Routledge

Cushion, C.J. (2013). Applying game centred approaches in coaching: a critical analysis of the 'dilemmas of practice' impacting change. *Sports Coaching Review, 2*(1), 61-76.

Cushion, C.J., & Jones, R.L. (2014). A Bourdieusian analysis of cultural reproduction: socialisation and the 'hidden curriculum' in professional football. *Sport, Education and Society, 19*(3), 276-298.

Cushion, C.J., Armour, K., & Jones, R.L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest,* 55(3), 215-230.

Cushion, C.J., Armour, K., & Jones, R.L. (2006). Locating the coaching process in practice: models 'for' and 'of' coaching. *Physical Education and Sport Pedagogy, 11*(1), 83-99.

Cushion, C.J., Griffiths, M.G., & Armour, K. (2018). Professional coach educators in-situ: a social analysis of practice. *Sport, Education and Society,* DOI:10.1080/13573322.2017.1411795

Cushion, C.J., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R. and O'Callaghan, C., 2010. Coach learning and development: A review of literature. *Leeds: Sports Coach UK*.

De Bruyckere, P., Kirschner, P.A., & Hulshof, C.D. (2015). *Urban myths about learning and education*. Amsterdam, Academic Press.

Gilbert, W., & Trudel, P. (1999). An evaluation strategy for coach education programs. *Journal of Sport Behavior, 22*(2), 234-250.

International Council for Coaching Excellence, Association of Summer Olympic International Federations, & Leeds Metropolitan University, (2014). *International coach developer framework v1.1.* Leeds, UK: International Council for Coaching Excellence. Online version accessed 23 July 2018 at [https://www.icce.ws/_assets/files/documents/PC_ICDF_Booklet_Amended%20Sept%2014.pdf]

Jacobs, J., Assaf, L., & Lee, K.S. (2011). Professional development for teacher educators: conflicts between critical reflection and instructional-based strategies. *Professional Development in Education, 37*(4), 499-512.

Jones, R., Morgan, K., & Harris, K. (2012). Developing coaching pedagogy: seeking a better integration of theory and practice. *Sport, Education and Society, 17*(3), 313-329.

Lalley, J. and Miller, R. (2007) The Learning Pyramid: Does It Point Teachers in the Right Direction? *Education*, 128(1), 64-79

Light, R., (2008). Complex learning theory – its epistemology and its assumptions about learning: implications for physical education. *Journal of Teaching in Physical Education, 27,* 21-37.

Lyle, J. (2007). A review of the research evidence for the impact of coach education. *International Journal of Coaching Science, 1*(1), 17-34.

Lyle, J. (2018). The transferability of sport coaching research: A critical commentary. *Quest,* DOI: 10.1080/00336297.2018.1453846.

Makoploulou, K. (2018). An investigation into the complex process of facilitating effective professional learning: CPD tutors' practices under the microscope. *Physical Education and Sport Pedagogy, 23*(3), 250-266.

Mason, J., (2006). *Six strategies for mixing methods and linking data in social science research*. ESRC National Centre for Research Methods, NCRM Working Paper Series 4/06. Online accessed 26th July 2017 at [http://eprints.ncrm.ac.uk/482/1/0406_six%2520strategies%2520for%2520mixing%2520methods.pdf].

McCullick, B.A., Belcher, D., & Schempp, P.G. (2005). What works in coaching and sport instructor certification programs? The participants' view. *Physical Education and Sport Pedagogy*, *10*(2), 121-137.

McQuade, S. and Nash, C., (2015). The role of the coach developer in supporting and guiding coach learning. *International Sport Coaching Journal*, *2*(3), pp.339-346.

Morgan, K., Jones, R.L., 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), London: Routledge.

Nelson, L., Cushion, C.J., Potrac, P., & Groom, R. (2014). Carl Rogers, learning and educational practice: critical considerations and applications in sports coaching. *Sport, Education and Society, 19*(5), 513-531.

North, J., (2010). Using 'coach developers' to facilitate coach learning and development: Qualitative evidence from the UK. *International Journal of Sports Science & Coaching*, *5*(2), pp.239-256.

Patton, (1990). *Qualitative evaluation and research methods (2nd edition)*. Newbury Park, CA: Sage.

Piggott, D. (2012). Coaches' experiences of formal coach education: a critical sociological investigation. *Sport, Education and Society, 17*(4), 535-554.

Phelan, S., & Griffiths, M. (2018). Reconceptualising professional learning through knowing-in-practice: a case study of a coaches high performance centre. *Sports Coaching Review*, DOI: 10.1080/21640629.2018.1424405.

Savin-Baden, M. (2003). *Facilitating Problem-Based Learning.* Maidenhead: SRHE and Open University Press.

Schunk, D.H. (2012). *Learning theories: an educational perspective (6th Edition)*. Boston, MA: Pearson.

Shulman, L.S. (2005). Signature pedagogies in the professions. *Daedalus, 134*(3), 52-59.

Smith, B. (2018). Generalisability in qualitative research: misunderstandings, opportunities and recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and Health, 10*(1), 137-149.

Stodter, A., & Cushion, C.J. (2014). Coaches' learning and education: a case study of cultures in conflict. *Sports coaching review, 3*(1), 63-79.

765 Stodter, A., & Cushion, C.J. (2017). What works in coach learning, how, and for whom? A
766 grounded process of soccer coaches' professional learning. *Qualitative Research in*
767 *Sport, Exercise and Health, 9*(3), 321-338.

768 Stoszkowski, J., & Collins, D. (2017). Nirvana or never-never land: does heutagogy have a
769 place in coach development? *International Sport Coaching Journal, 4*, 353-358.

770 Swennen, A., & Bates, T., (2010). The professional development of teacher educators.
771 *Professional Development in Education,* 36(1-2), 1-7.

772 Trudel, P., Culver, D. and Werthner, P., (2013). Looking at coach development from the coach-
773 learner's perspective: considerations for coach development administrators. In P.
774 Potrac, W. Gilbert & J. Denison (Eds.) *Routledge Handbook of Sports Coaching* (pp.
775 375-387), London: Routledge.

776 Townsend, R.C., Cushion, C.J., & Smith, B. (2017). A social relational analysis of an
777 impairment-specific mode of disability coach education. *Qualitative Research in Sport,*
778 *Exercise and Health, 10*(3), 346-361.

779 Tusting, K., & Barton, D. (2003). *Models of Adult Learning: A Literature Review*. London:
780 NRDC.

781 Vanassche, E., & Kelchtermans, G. (2014). Teacher educators' professionalism in practice:
782 positioning theory and personal interpretative framework. *Teaching and Teacher*
783 *Education, 44,* 17-127.

784 Zeichner, K.M. (2005). Becoming a teacher educator: a personal perspective. *Teaching and*
785 *Teacher Education, 21*(2), 117-124.