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2 Journal, 2023, <https://doi.org/10.1123/iscj.2022-0017>. © Human Kinetics, Inc.

3 **Citation:**

4 Jones, Timothy, Allen, Justine, & Macdonald, Stephen. (2023). The 'Face' of Coach Development: A
5 Systematic Review of the Role of the Coach Developer. *International Sport Coaching Journal*.
6 Advance online publication. <https://doi.org/10.1123/iscj.2022-0017>

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8 **The 'face' of coach development: a systematic review of the role of the coach developer**

9 Submitted: Monday, 28th February, 2022

Abstract

The purpose of this paper was to systematically review the peer-reviewed literature on the role of the coach developer (CD). Three questions guided this review: (1) who is the CD, (2) what do they do, and (3) how do they do it? Using five electronic databases: SPORTDiscus, ERIC, PsycInfo, Web of Science, and Scopus, a total of 595 articles were initially found with 42 identified as appropriate for inclusion following PRISMA guidelines. A further 11 were added via the screening of reference lists and during the process of writing, to total 53 articles. Data analysis comprised of content analysis (CA) to describe and identify gaps in the research, and reflexive thematic analysis (TA) to facilitate the analysis of the findings from the included studies. CA findings show an increase in researching this role and a breadth of methodology and theoretical frameworks being employed. Utilizing reflexive TA, seven themes were generated to understand the who, what, and how of the CD. Findings suggest a diverse and contextualized appreciation of the various roles the CD undertakes as encompassed by the International Council for Coaching Excellence (ICCE) umbrella term definition. The discussion reveals the complexity of the role as CDs navigate who they are, what they do, and how they do it. Recommendations are made for future research to mediate knowledge gaps and move towards alignment and understanding of this key figure.

Keywords: coach educator, coach mentoring, coach learning, professional development, sport coaching, coach developer, coach development.

Introduction

Coach developers (CDs) are a central figure in coach development systems (Culver, Werthner, & Trudel, 2019; Edwards, Culver, Leadbetter, Kloos, & Potwarka, 2020), playing a key function in the learning of sports coaches. The CD has recently received global attention (Callary & Gearity, 2019a) and multiple frameworks have been produced by national organizations to explain and contextually organize the role of the CD (CIMSPA, 2021; International Council for Coaching Excellence [ICCE], 2014; Sport Australia, n.d.). Typically, the ‘face’ of formal coach development (McQuade & Nash, 2015; Redgate, Potrac, Boocock, & Dalkin, 2020; Watts, Cushion, & Cale, 2021), the title ‘coach developer’ has become an ‘umbrella term’, encapsulating various roles including educator, leader, facilitator, mentor, assessor, course designer, and evaluator (ICCE, 2014). These roles are designed and deployed to “develop, support and challenge coaches to go on honing and improving their knowledge and skills to provide positive and effective sport experiences for all participants” (ICCE, 2014, p. 8). Indeed, CDs have been shown to leave a long-standing impression on coach learners’ motivation for lifelong learning (Dohme, Rankin-Wright, & Lara-Bercial, 2019). Therefore, examining what is currently known about who CDs are, what they do, and how they work will add to our understanding of the CD, identify gaps where further research is needed, and provide insights for coach development practice and policy.

Researchers have documented that coach learning comprises varied experiences over many years (e.g., Lara-Bercial & Mallett, 2016) and recognize the need for a range of individualized learning sources with which coaches can engage (North, 2010; Stodter & Cushion, 2017). Indeed, coaches’ preferred learning sources may change as they gain expertise and advance in their careers (Mallett, et al., 2016). In accepting that coaches will learn from any and all of these learning opportunities, it is suggested that effective coach development should consist of a blended learning package ranging in formality (Cushion & Nelson, 2013; Hussain, Trudel, Patrick, & Rossi, 2012; ICCE, 2014). Common to each source of learning, however, is the involvement, to a greater or lesser degree, of CDs, viewed as experts in, and central to, coach development (ICCE, 2014).

Thus far, attempts to identify the qualities and ‘tasks’ of an effective CD (e.g., Abraham, 2016) have been met with criticism for their disconnection from, “practice, context and subsequent

coaches' learning" (Stodter & Cushion, 2019, p. 307). Indeed, Downham and Cushion (2020) state that, despite these attempts, "[CDs'] practice and influence have been taken for granted, assumed, or simply rendered invisible" (p. 3). Furthermore, a lack of understanding and conceptualization of the role may be the cause of superficial understandings and coach education issues that are beyond the CD's role or control (Watts et al., 2021). Coach education research has instead focused on coaches' perspectives on their development experiences and the features that are valued and desired by coach learners (e.g., Ciampolini, Milistetd, Rynne, Brasil, & Nascimento, 2019; Ji, Xu, Cheng, Sun, & Zhang, 2021; Lewis, Roberts, & Andrews, 2018; Nash & Sproule, 2012) including multiple reviews of coach development programmes (CDPs; Evans, McGuckin, Gainforth, Bruner, & Côté, 2015; Lefebvre, Evans, Turnnidge, Gainforth, & Côté, 2016; Silva, Evans, Lefebvre, Allan, Côté, & Palmeira, 2020). Despite research in the CD field expanding in the last few years (e.g., Callary & Gearity, 2019a), and authors identifying a paucity of empirical research exploring CDs' practices, processes, and perspectives (Allanson, Potrac, & Nelson, 2021; Callary & Gearity, 2019a; Ciampolini, Tozetto, Milan, Camiré, & Milistetd, 2020; Watts et al., 2021), a systematic review of this key role has yet to be completed. Indeed, improving our understanding of the CD could impact practice, policy, and research in coach development. Therefore, the purposes of this review were to: (a) offer an overview and evaluation of methodological and theoretical approaches underpinning research in this area; (b) systematically evaluate relevant empirical literature for trends and themes of research with the CD(s) as a, or the, focus of analysis; and (c) elucidate potential knowledge gaps and recommendations for future investigation. Such a review may aid in identifying current limitations, influencing research directions, as well as coach developer practice, and coach education. Indeed, it is anticipated that examining existing knowledge and ways of knowing will provide a starting point to advance researchers' and practitioners' critical exploration of this key role in coach development. To achieve this, the review is guided by three central questions; (1) who is the CD; (2) what do they do; and (3) how do they do it?

Method

This review was informed by systematic review methodology that is suited to the integration of a diverse body of work (Mays, Pope, and Popay, 2005; Bennie et. al., 2017). Thus, a systematic

search protocol in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Page et al., 2021) was utilized as a “road map to help authors best describe what was done, [and] what was found” (Sarkis-Onofre, Catalá-López, Aromataris, & Lockwood, 2021, p. 1). Following identification and screening, included studies were analyzed in a deliberate methodological ‘mash-up’ (Braun & Clarke, 2021, p. 336) of content analysis (CA; Mikkonen, & Kääriäinen, 2020) and reflexive thematic analysis (TA) protocols (Braun & Clarke, 2019). The combination of approaches enabled the quantitative description of study characteristics and drawing together an amorphous body of literature with diverse findings into a thematic description of evidence-based knowledge regarding the CD (Aromataris & Pearson, 2014).

Search Strategy

In keeping with PRISMA guidelines the search strategy identified key search terms, search fields, and relevant databases. Search terms were derived from methodologies presented by Popay et al., (2006) and the adoption of the CD ‘umbrella term’ (ICCE, 2014). In seeking to answer the central questions of the review, the population searched for is limited to the group of roles described by the ICCE above and those known by researchers to have relevance (e.g., Personal learning coach (PLC); Rodrigue, Trudel, & Boyd, 2019). An electronic search in the following five databases: (i) SPORTDiscus; (ii) ERIC; (iii) PsycInfo; (iv) Web of Science; and (v) Scopus was conducted on 28th March, 2021. A further search was conducted on 10th August, 2021 to determine if any recently published studies should be included in the review. Boolean logic in the following combinations was used to search for articles: "Coach Developer*" OR "Coach Educator*" OR "Coach Mentor*" OR "Personal Learning Coach*" OR "Coach Facilitator*" OR "Coach Programme Designer*" OR "Coach Assessor*" OR "Coach Evaluator*". This search ensured that articles identified focused on the range of CD roles and perspectives. Electronic database searches returned a total of 595 records which were imported into EndNote (version X9, 2020). Screening reduced the included papers to 42 with a further eight studies added via reference chaining and an additional three after the second literature search. This resulted in 53 studies included in the review.

Criteria for Inclusion

Inclusion criteria were established before the sifting of records to ensure the relevance of papers to the review. For inclusion, studies had to: a) be published in English; (b) be published in a peer-reviewed journal; (c) be available in full-text; (d) have the CD actively recruited as a participant(s); and (e) be published between 2010-2021 (due to recent research interest and the term in empirical literature first appearing in North's 2010 paper - drawing on a previous publication regarding 'coach development officers' (Roberts, 2004)). This allows for analysis of changing and/or corroborating understanding of the CD research landscape over time.

Sifting of Retrieved Records

Informed by PRISMA guidelines (Page et al., 2021), the process of searching, sifting, and organizing articles was completed in three steps after extracting the duplicate articles (n = 178) contained in the searches. The authors independently reviewed the studies found by title, by abstract, and finally by full-text, systematically applying inclusion criteria. Records that did not satisfy the criteria were excluded (see Figure 1). Any disagreements regarding eligibility were resolved via discussion.

Quality Assessment

Attending to PRISMA regarding methodological quality, the Mixed-Methods Appraisal Tool (MMAT; Hong et al., 2019) was used to assess the quality of the final sample of studies. This tool considers the appropriateness of research designs and the adequate interpretation of results and contains two screening questions to establish if studies are empirical, and five categorizations of study designs which are completed on a 3-point scale of ('Yes', 'No', or 'Can't tell'; Hong et al., 2018). The first author completed the assessments producing summary scores by a percentage of 'Yes' responses and excluding any 'N/A' responses (Table 1). To assess for the trustworthiness of these assessments, a random sample of studies (n = 5) were also assessed independently by the second author who found no discrepancies.

The majority of studies were assessed to answer 'Yes' to all questions with the remaining studies resulting in lower quality assessment due to a lack of specific methods of data collection and analysis (e.g., Martin, Moorcroft, & Johnson, 2019; Milistetd, Peniza, Trudel, & Paquette, 2018) and poor or no evidence of appropriate interpretation of that data via a specific means (e.g., Crisp, 2018;

Culver, Werthner, & Trudel, 2019). It is worth noting that many of these studies are presented as descriptive, narrative, reflective, or action research publications, often from the perspective of the authors (e.g., Cronin & Lowes, 2016; Dray & Howells, 2019). Additionally, sample size affects the quality assessment with multiple studies presenting findings (and acknowledging the limitation) from the research of a single CD. Although these results may provide useful elucidation of current methodological rigor, and considering a lack of empirical evidence supporting the efficacy of scales and checklists for assessing quality and risk of bias (Moher et al., 1995), quality assessment was not utilized for the purposes of sifting or excluding studies. Instead, the relevance of the research was carefully considered and included provided that the study offered evidence that would benefit the review. This allowed for the addition of pertinent detail from the included studies despite any technical deficiencies (Pawson, 2006).

Data Extraction and Synthesis

To enable CA of the key characteristics of the studies the first author extracted: (1) author details; (2) year of publication; (3) country or location of study; (4) participant information; (5) sport context; (6) instruments for the collection of data; and (7) theoretical framework (Table 1). Focusing on these features follows procedures in similar reviews (e.g., Langan, Blake, & Lonsdale, 2013; Walker, Thomas, & Driska, 2018) and recommendations from Pope, Mays, and Popay (2007) in enabling researchers to describe characteristics and identify gaps in the research. Insights from this analysis can be used in the development of future research questions and to inform the methods employed to examine them. A random sample of studies was reviewed by the second author ($n = 5$) to confirm the extracted information was accurate and relevant. In any paper whereby authors did not report or make detail clear, this has been reported as ‘ø’.

Following this, data analysis of the findings of each paper was conducted following a reflexive TA approach (Braun & Clarke, 2019). Reflexive TA is completed via a six-phase recursive process, ‘with themes developed from codes, and conceptualized as patterns of shared meaning’ (Braun & Clarke, 2021, p. 39). Reflexive TA offers a method that employs researcher subjectivity as a tool enabling us as authors to engage with the data critically and creatively. Indeed, our analysis sought to combine deductive and inductive elements (Braun, Clarke, & Weate, 2016). Analysis began

with the first author familiarizing himself by reading and re-reading all included papers, completing a detailed inspection. The study's questions of Who, What, and How (Abraham, Collins, Morgan, & Muir, 2009) were then used as overarching themes to deductively organize codes into 'buckets' (Braun & Clarke, 2019, p. 594). From these 'buckets', recurring themes were inductively constructed around three overarching themes representing distinct features or statements across the 53 studies (Braun et al., 2018). These themes were discussed by the authors to ensure fit with the central questions of the review before being named and defined into seven themes and 16 sub-themes (Table 2).

Results and Discussion

53 studies were included and examined to elucidate the current position of research investigating the role of the CD. The presentation and discussion of the findings are organized into two sections: (a) study characteristics (i.e., methodological and sample characteristics, and philosophical, conceptual, and theoretical frameworks), and (b) findings from studies (i.e., overarching themes regarding the who, what, and how of the CD).

Study Characteristics

This section is informed by content analysis where we sought to describe key characteristics of the studies included in the review and identify gaps in the literature so as to indicate how research has been framed and conducted on this topic thus far.

Methodological Characteristics

The majority of studies took a qualitative, case study approach ($n = 50$, 94.34%) with three adopting a mixed-methods design. The most commonly reported method of data collection was interview ($n = 39$, 73.58%), which was most frequently analyzed using various forms of thematic analysis ($n = 27$, 50.94%). Many of the studies employed multiple qualitative methods ($n = 28$, 52.83%). All but one of these studies combined interviews with other methods such as document analysis ($n = 10$, 18.87%) and field notes ($n = 11$, 20.75%). Employing multiple qualitative methods, alongside greater interest in the CD as a research topic, was evident from 2018 onwards (see Figure 2).

Sample Characteristics

Due to the varying levels of detail provided on the sampled participants, accurate figures could not be generated regarding their characteristics. The available data shows that 397 CDs (range sampled 1 to 26) participated across the 53 included studies. Age was reported in only 18 studies (33.96%). Where reported, the average age ranged from 24 to 50.5 years. Across studies that reported the gender of CDs (29, 55%), the split was 66.06% male to 33.94% female. Moreover, removing the two studies that specifically targeted female CDs shifts the percentages to 73.37% and 26.63% respectively.

The majority of research conducted was with National Sport Organizations (NSOs; $n = 37$, 69.81%) and Higher Education Institutions (HEIs; $n = 12$, 22.64%). The geographical location of the research, though conducted across a total of ten countries, is dominated by the United Kingdom ($n = 24$, 45.28%), followed by Canada ($n = 10$, 18.87%) and Brazil ($n = 6$, 11.32%). One study (Van Hoya et al., 2015) involved two countries (Norway and France) and sought to establish cross-cultural transferability of a CDP. Consistent with other areas of sport coaching research (e.g., Cope, Partington, & Harvey, 2017) the most prevalent sporting context reported was soccer ($n = 9$, 16.98%).

Other sports examined included rugby ($n = 4$, 7.55%) and golf ($n = 2$, 3.77%) with a number of sports appearing once in the review. Several studies ($n = 15$, 28.30%) either sampled CDs functioning in, or commenting on CDPs that were for, a variety of sports (denoted in Table 1, as ‘mix’). Furthermore, despite ICCE (2014) suggesting CDs should have “significant and successful coaching experience in one or more contexts” (p. 27), many studies in this review provided insufficient information to determine participating CDs’ experience ($n = 23$, 43.40%). To better contextualize research and its findings, future research should seek to consistently provide detailed descriptions of sample characteristics and selection criteria employed.

Philosophical, Conceptual, and Theoretical Frameworks

Notwithstanding the conceptualization of the CD itself, extracted data suggested there is considerable diversity in the underpinnings of the included studies. Thirteen studies (24.53%) did not state a specific framework for the research. Whilst those that did, reported philosophical underpinnings such as interactionist and dramaturgical (e.g., Allanson et al., 2021), interpretative (e.g., Corsby, Lane, & Spencer, 2020), realist (e.g., Redgate et al., 2020), critical realist (e.g., Garner,

Turnnidge, Roberts, & Côté, 2020) and social constructionist (e.g., Leeder & Cushion, 2020). Additionally, multiple conceptual and theoretical underpinnings were used to either inform the research design, analysis, or both. These related fundamentally to the aspect of the CD being researched such as their positioning in a system (e.g., Organizational culture; Schein, 2004), pedagogy (Bernstein, 2000), pedagogical practice (e.g., Learner-centered teaching framework; Blumberg, 2008; Weimer, 2002), specific practice in context (e.g., Mentoring at work; Kram, 1988), their lifelong journey and learning (e.g., Comprehensive theory of human learning; Jarvis, 2006), and use of theory in practice (Argyris & Schon, 1974). The diversity in frameworks offers a range of detail that seeks to problematize, elucidate, and illuminate the role of the CD.

Several of the studies in the review failed to identify their underpinning frameworks (e.g., Koh, Ho & Koh, 2017) or explicitly how frameworks were utilized to analyze data (e.g., Martin, Moorcroft & Johnson, 2019). Kivunja (2018) highlighted the distinction between conceptual framework, which encompasses all aspects of research and therefore is impractical to unpack, and theoretical framework which is drawn from review of literature on the topic and therefore enables researchers to connect their work with existing research and demonstrate how it advances knowledge in the area. Furthermore, Kivunja argues that adopting and articulating a theoretical framework for research is critical as it “provides a structure for what to look for in the data, for how you think of how what you see in the data fits together, and helps you to discuss your findings more clearly, in light of what existing theories say.” (p. 47). Therefore, explicit identification and discussion of philosophical, conceptual, and theoretical assumptions would support deeper analysis, interpretation of results and discussion of findings by other researchers, encourage interdisciplinarity, and increase the opportunity for generalizations and understanding.

Findings from Studies

In this review, the three domains of who, what, and how were appropriated from an adaptation of the coach development decision-making model (Abraham, Collins, Morgan, & Muir, 2009) intended “to summarise the core tasks and decisions that define a professional role” (p. 57). They provided the overarching themes focused on the CD themselves rather than just the tasks they complete and the decisions they make. This satisfied our desire to remain CD-centric and reflect

current knowledge on the CD whilst employing a reflexive TA procedure. It is worth noting that themes frequently represent aspects that overlap (Braun & Clarke, 2019) and as such the identified themes and sub-themes (Table 2), though appearing separate, may coincide and interact.

Who is the CD?

Three major themes were developed relating to who the CD is: (In)Congruences with conceptualizations and role clarity of the CD; Limited understanding of and inconsistencies in CDs' opportunities and pathways; and Training of the CD appears inadequate.

(In)Congruences with conceptualizations and role clarity of the CD. Despite increased research interest in the CD, there is confusion and disagreement about the 'label' that should be given to those working to develop coaches (Culver et al., 2019, p.297). The ICCE (2014) framework, referred to by many of the studies included in this review (e.g., Brasil, Ramos, Milistetd, Culver, & Nascimento, 2018; Ciampolini et al., 2020) suggests the CD is an 'umbrella' term that comprises multiple functional roles, including "coach educators, assessors, learning facilitators, presenters, and mentors" (ICCE, 2014, p. 8). However, additional terms were also evident (see 'Other' in Figure 3) including, tutors, trainers, coach development administrators, and personal learning coach (McQuade & Nash, 2015; Milistetd et al., 2018; Trudel, Culver, & Werthner, 2013). Despite the term 'CD' appearing earlier in the extant literature (e.g., North, 2010), research involving the CD as a unit of analysis began in 2012 and accelerated from 2018, with 81.13% of studies conducted in the last four years.

Although Figure 3 indicates the use of singular descriptors, multiple studies utilized the term CD and coach educator somewhat interchangeably (e.g., Brasil et al., 2018; Dempsey, Cope, Richardson, Littlewood, & Cronin, 2021; Edwards, Culver, Leadbetter, Kloos, & Potwarka, 2020; Norman, 2019) indicating an understanding (though not made explicit) of the coach educator as a form of CD. Others (e.g., the included coach mentoring research) did not use the term at all. Instead, there may be alignment with conceptualizations from other organizations such as the Chartered Institute for the Management of Sport and Physical Activity (CIMPSA) who suggest that CDs are separate from but related to tutors, assessors, mentors and executive coaches (CIMPSA, 2021).

For studies that use the term CD, there are two distinct conceptualizations of the role; 1) the ICCE umbrella term (10 studies: 18.87%); and 2) PLC research (2 studies: 3.77%). Those using the PLC conceptualization understand the CD as only involved in direct teaching (formal coach education) of the earlier parts of coaches' careers whereas the PLC is deployed later in a coach's career, typically with coaches working in high performance (Milistetd et al., 2018; Rodrigue et al., 2019). The somewhat narrower framing of the PLC as someone who is "a learning companion, who can help coaches to take the time to reflect on their practice in a safe place whilst encouraging them to act" (Rodrigue et al., 2019, p. 293), resembles recent descriptions of CDs from Sport Australia (n.d.), emphasizing provision of 'on the job' support.

(In)Congruences with conceptualizations across sports and geographical locations aside, in multiple studies the participant CDs reported a lack of perceived role clarity (e.g., Callary & Gearity, 2019b; Crisp, 2018). Furthermore, having clear roles is critical to ensure fidelity and effectiveness in CD practice (Bailey et al., 2019). Our review found issues of clarity may be due to the CD being just one part of complex coach development systems (Culver et al., 2019; Edwards et al., 2020) which is exacerbated with increasing complexity and size of systems (Edwards et al., 2020; Griffiths, Armour, & Cushion, 2018) and the creation of top-down layers for communication to pass through (Stodter & Cushion, 2019). Additionally, there is confusion following dissemination of policy and its recontextualization in the delivery of CDPs (Dempsey et al., 2021; Griffiths et al., 2018). Role clarity, therefore, appears to be an issue for CDs in practice and in research (Watts et al., 2021) with role frames yet to be adequately explored.

Limited understanding of and inconsistencies in CDs' opportunities and pathways.

Similar to recognition of the need for a long-term development pathway for coaches (Van Mullem & Gano-Overway, 2021), the ICCE (2014) proposed a long-term CD pathway. However, the studies included in the review offer little detail that would indicate this idealized pathway. Instead, CDs appear to be drawn from those individuals with experiences as athletes and coaches, and/or in higher education (e.g., Cushion, Griffiths, & Armour, 2019; Galatti, dos Santos, & Korsakas, 2019). Athletic and coaching experience and qualifications were reported inconsistently and only in 26 studies (49.06%). The detail of any requisite (perceived or actual) professional qualifications and experience

(as an athlete and/or coach) is sparse and often linked to the requirements of being a coach in that sport (e.g., Brasil et al., 2018; Galatti et al., 2019). Indeed, though qualifications may increase the external and internal credibility of some CDs (e.g., Redgate et al., 2020), their skills and competencies do not derive solely from educational experiences (for example promoting meaningful development via reflective practice; Galatti et al., 2019). Although varying efforts are made to explain the backgrounds of the participants, the lack of specific details effects the possible interpretation and understanding of exactly how the CDs reached this point in their careers.

Researchers may be constrained in their reporting due to anonymity and ethical considerations, however, as Callary and Gearity (2019a) note there appears a lack of understanding of the lifespan of the CD. Two exceptions (Brasil et al., 2018; Ciampolini et al., 2020), sought to examine the experiences that shaped CDs' learning pathway. Their findings suggest that meaningful episodic experiences from formative stages of engagement in sport (a 'first fascination'; Langseth, 2012) and positive experiences as coaches (including in coach development), result in a form of social responsibility to support the development of coach learners in their sporting context. Furthermore, Koh, Ho, and Koh's (2017) examination of mentoring found that the inclusion of leadership opportunities (e.g., as team captain) was a contributing factor to later becoming a mentor, and that CDs may have a progressive assumption of roles in a generational effect (i.e., coaches who have experienced mentoring may be more likely to want to become a mentor themselves in future).

Our review also suggests that opportunities to become a CD are dependent upon the professionalization of specific sports and cultural contexts (Brasil et al., 2018; Callary & Gearity, 2019b) as well as contextual understanding of the role of the CD and access to appropriate resources such as funding, time availability (of the CD(s) themselves and opportunities to deliver), and standardized programming (e.g., Callary & Gearity, 2019b; Koh et al., 2017; Leeder, Russell, & Beaumont, 2019). Gender also appears to be a barrier to opportunity, with research indicating that female CDs are underrepresented due, in part, to inadequate options for coaching license accreditation (Norman, Rankin-Wright, & Allison, 2018) and training (Kraft, Culver, & Din, 2020). As mentioned in the sample characteristics section, there have been few studies that have included female CDs (e.g., Norman, 2019), thus our knowledge of their journey and challenges in becoming a CD is limited.

Although providing some insights, there is currently limited understanding of the motivation, credentials, and opportunity, for entering the career pathway to become a CD. Further research is needed to advance our understanding of why and how CDs enter the pathway and to ascertain (in)consistencies in CDs' opportunities and pathways. Moreover, analysis of recruitment strategies by organizations employing and deploying CDs would reveal where the opportunities and challenges for prospective CDs are.

Training of the CD appears inadequate. The ICCE framework states that CDs should portray a growth mindset to support the skill progression intended on their training pathway. In the reviewed studies, CDs report learning opportunities that include drawing on experiences as an athlete, coach, and ongoing practice by other CDs and themselves (Brasil et al., 2018; Ciampolini et al., 2020; Cushion et al., 2019). However, CDs also describe feeling underprepared when delivering programs to develop coaches (e.g., Banwell, Stirling, & Kerr, 2019; Crisp, 2018; Stodter & Cushion, 2019), evaluating others (e.g., Kloos & Edwards, 2021) and often appear unaware of the pedagogical underpinnings and prior experiences that shape their practice (Culver et al., 2019; Cushion et al., 2019; Hussain et al., 2012; Leeder et al., 2019; Paquette, Trudel, Duarte, & Cundari, 2019). Despite these findings, there is currently little understanding of the training of CDs (McQuade & Nash, 2015) or 'learning programme designers' (Horgan & Daly, 2015) such as the content and intended outcomes of a training program for CDs and understanding of effective training (Stodter & Cushion, 2019).

Formal training is a relatively new phenomenon, rarely included in the learning pathway of the CD (Campbell, Fallaize, & Schempp, 2020). For those training programs that do exist, researchers have found that the primary focus is often on the CDs' role in the recontextualization of a predetermined curriculum (Campbell et al., 2020; Dempsey, Richardson, Cope, & Cronin, 2020; Watts et al., 2021) rather than their own learning and development. Additionally, and similar to research into CDPs (e.g., Allan, Vierimaa, Gainforth, & Côté, 2018), CD training programs have received criticism for content overload in the time available, failure to provide after-care in the form of consistent and ongoing support, and contextual relevance (Culver et al., 2019; Leeder et al., 2019; Stodter & Cushion, 2019; Watts et al., 2021). These criticisms could contribute to the uncritical

reproduction of organizational beliefs and assumptions of best practice in coach development (Downham & Cushion, 2020; Leeder & Cushion, 2020; Stodter & Cushion, 2019).

Despite a significant push towards learner-centered teaching (LCT) approaches within CDPs (Chapman, Richardson, Cope, & Cronin, 2020; Rodrigues, Brasil, Milistetd, & Trudel, 2021; Mesquita, Coutinho, de Martin-Silva, Parente, Faria, & Afonso, 2015; Paquette & Trudel, 2018), research has found CDs' perceptions of their training and subsequent 'implementation' in this regard often relies on their prior acquaintance and orientation to the teaching approach (Culver et al., 2019; Paquette et al., 2019; Reid & Harvey, 2014). While training may assist CDs in recognizing LCT methodologies and/or competency-based approaches, research suggests that CDs experience difficulties putting these into practice (Culver et al., 2019; Dempsey et al., 2021; Leeder et al., 2019; Stodter & Cushion, 2019). Additionally, and ironically given the movement towards LCT practices, studies report instructor-centered teaching (ICT) methods on CD training programs (e.g., Culver et al., 2019), and instructor perceptions that CDs are already competent to perform in their role(s) (e.g., Stodter & Cushion, 2019).

Unsurprisingly, recommendations made in the literature for improving CD training programs include learner-centered practices. These involve; incorporating structured and unstructured learning for interaction with, and influence by, peers (Campbell et al., 2020; Crisp, 2018; Galatti et al., 2019; Kloos & Edwards, 2021; Koh et al., 2017; Leeder et al., 2019; Redgate et al., 2020); connecting theory to practice via practical components (Campbell et al., 2020; Redgate et al., 2020; Van Hoya et al., 2015); tailoring (additional) CD training programs to the level of CDP being delivered and specific roles of the CD (Campbell et al., 2020; Culver et al., 2019; Koh et al., 2017); considerations for particular demographics such as women-only training programmes (Kraft, Culver, & Din, 2020); and situating training in the reality of their professional roles (ICCE, 2014; Redgate et al., 2020). Furthermore, research points to allowing CDs further time in training to cover content (e.g., Van Hoya et al., 2015) and positive perceptions of longer-term CD training programs featuring greater time for unstructured learning in the curriculum and valuing time in-situ to, “‘anchor their experiences’ while staying ‘connected with the whole process’” (Campbell et al., 2020, p. 133). Three recent papers indicate that implementation of these recommendations was viewed positively from both CDs as

learners (Partington, O’Gorman, Greenough, & Cope, 2021; Vinson, Simpson, & Cale, 2022) and from ‘Master Coach Developers’ training, evaluating, and supporting CDs (Kloos & Edwards, 2021).

The findings in this review suggest training of the CD to be a crucial and desired component in role success, clarity, and fidelity that is currently largely ineffectively supported by CD training programs (Bailey et al., 2019; Callary & Gearity, 2019b; Campbell et al., 2020). Encouragingly, more recent research into CD training programs report greater understanding of espoused and theories-in-use and increased confidence in professional identity and role (Partington et al., 2021; Vinson et al., 2022).

What does the CD do?

As described above, the CD term can be conceptualized to include various roles and responsibilities (McQuade & Nash, 2015), thus affecting what the CD does. Our analysis resulted in two themes: Multiple functions of the CD contribute to a lack of role clarity; and Top-down approaches to CDPs hinder the fidelity of CDs’ implementation.

Multiple functions of the CD contribute to a lack of role clarity. CDs are considered an expert workforce essential to coach development systems that impact coaches through the provision and facilitation of formal and non-formal learning opportunities (ICCE, 2014). The CDs in the studies in this review operated in multiple roles in the design, implementation, and delivery of coach development. Figure 3 shows a range of role descriptors given to the CDs, the most prevalent being ‘Developer’ (22 studies: 41.51%), ‘Educator’ (11 studies: 20.75%), and ‘Mentor’ (11 studies: 20.75%). However, this paints just part of the picture, as individual CDs may specialize in one role or have multiple roles, with multiple responsibilities or ‘tasks’ (Abraham et al., 2013; ICCE, 2014). Indeed, in the reviewed studies there are instances of CDs operating as both Educator and Assessor (Allanson et al., 2021; Garner et al., 2020; Reid & Harvey, 2014), Designer and Educator (Callary, Gearity, & Kuklick, 2021; Cronin & Lowes, 2016; Rodrigues et al., 2021; Martin et al., 2019) and Educator and Mentor (Cushion et al., 2019; Downham & Cushion, 2020). This indicates that for many CDs the role can be multidisciplinary, combining several fields of expertise in concurrent roles. There are, however, few studies that specifically explore the different behaviors and interpersonal knowledge required to balance multiple functions (see Garner et al., 2020 discussed further below).

This furthers a previous point as to the importance of role clarity and an influence of culture and context on the typology and vocabulary used to differentiate and describe the CDs. Subsequently, the role descriptor(s) and associated role frame(s) used and detailed by researchers inconsistently denote the function(s) that CDs undertake.

Top-down approaches to CDPs hinder the fidelity of CDs' implementation. Our review found CDs in formal learning situations are tasked with implementing the whole, or part of, a CDP that is either disseminated to them with little or no prior input (e.g., Dempsey et al., 2021) or that they have, to varying degrees, designed themselves (e.g., Callary et al., 2021). Dissemination of coach education policy occurs via restricted layers of communication that can cause confusion and misinterpretation in implementation (Cassidy, Kidman, & Dudfield, 2015; Dempsey et al., 2021; Edwards et al., 2020; Griffiths et al., 2018; Stodter & Cushion, 2019). Indeed, a CD interviewed in Paquette et al., (2019) stated, "I can't help but think the people who create programs like this make it more complicated than it likely needs to be. Perhaps it's because these people are usually far removed from what's actually happening on the ground" (p. 278). These issues in dissemination and training have produced varied practice and approaches (e.g., Culver et al., 2019; Watts et al., 2021) and reports from coach learners of confusion and contradiction of content (Stodter and Cushion, 2019) effecting fidelity, especially for large-scale CDPs (Culver et al., 2019; Edwards et al., 2020; Griffiths et al., 2018).

The findings of several studies suggest that the process of implementation is somewhat problematic, happening via recontextualization, the, "decoding and recoding of policy" (Dempsey et al., 2021, p. 4) which, "is a complex, fluid, and inherently contested process" (p. 2). For example, there are CD delivery intention-action gaps due to inconsistencies in espoused and in-use theories (e.g., Stodter & Cushion, 2019), anti-intellectualism, and the misappropriation or misuse of pedagogical theory (Cushion et al., 2019) which challenge CDs' ability to facilitate coach learning (Cushion, Stodter, & Clarke, 2021; Dempsey et al., 2020). Furthermore, consistent with concerns raised by coach learners in formal education settings (e.g., Ciampolini et al., 2019; Piggott, 2012), the balance of content to time available and assessment-orientated processes seem to impair CDs' ability to address coach learners' needs (Culver et al., 2019; Dempsey et al., 2021). However, some research

has shown that this issue can be positively affected by longer-term and personalized engagement with coach learners (Ciampolini, Camiré, Salles, Nascimento, & Milistetd, 2021; Rodrigue et al., 2019) and the deliberate design for the adaption of content to learner's needs (Cronin & Lowes, 2016; Dray & Howells, 2019; Hussain et al., 2012; Martin et al., 2019). This requires the appropriate availability of time and resources in delivery, and CD agency and pedagogical knowledge (Ciampolini et al., 2021).

To date, our understanding regarding what the CD does is mostly drawn from document analysis and observation (e.g., Dempsey et al., 2020; Edwards et al., 2020; Griffiths et al., 2018; Stodter & Cushion, 2019). There is little explanation from the CDs themselves as to what they do, other than intimating a philosophy of (e.g., Ciampolini et al., 2021), or problems with, implementation (e.g., Dempsey et al., 2021). Further research is therefore needed regarding what CDs understand and perceive as their process and practice.

How does the CD Operate?

There is limited research exploring the in-situ role of the CD (e.g., Abraham et al., 2013; Watts et al., 2021). Of the empirical research reviewed here, three themes were developed regarding How the CD operates: Shifts to learner-centered design presents challenges for CDs; Understanding of social dynamics and broader relational systems involved in CD practice is limited; and Intention-Action mismatches and evidence of knowledge reproduction.

Shifts to learner-centered design presents challenges for CDs. The designer in a coach development system can be split into two categories: the qualification designer and the learning program designer (McQuade & Nash, 2015). The former is responsible for mapping learning outcomes to national standards and appropriate guidance for assessment. The latter is responsible for the construction of a framework to support the coach's learning journey from start to completion of the qualification. Of the reviewed studies, 11 (20.75%) report on the qualification and learning program design, and four (7.55%) report on the learning program design only.

A consistent feature of the reviewed records is the moves towards learner-centered perspectives both in NSOs (e.g., Chapman et al., 2020; Culver et al., 2019; Dempsey et al., 2020; Paquette & Trudel, 2018) and HEIs (e.g., Cronin & Lowes, 2016; Galatti et al., 2019; Milistetd et al.,

2019; Rodrigues et al., 2021; Stodter, Cope, & Townsend, 2021). This shift implies learner-centered teaching (LCT) strategies such as active learning experiences that give coach learners, “the opportunity to think and act like coaches for as much of the learning time as possible” (McQuade & Nash, 2015, p. 344) and, “provide a flexible structure based on the coaches’ self-determined needs” (Hussain et al., 2012, p. 237). These are further underpinned by the promotion of a lifelong learning perspective (Culver et al., 2019; Rodrigues et al., 2021). Researchers do however contend that designing constructivist approaches should not be viewed as a ‘panacea’ (Rodrigue et al., 2019; Rodrigues et al., 2021). Indeed, any change in pedagogical or andragogical approach will experience tensions, power imbalances, and challenges (see Luguetti, Kirk, & Oliver, 2019; Milistetd et al., 2019; Stoszkowski & Collins, 2017) that could result in a ‘flop’ if the application of learner-centered teaching strategies are not met with appropriate implementation (Callary, Gearity, & Kuklick, 2021).

Understanding of social dynamics and broader relational systems involved in CD practice is limited. The effectiveness of CDs (and by extension CDPs) relies heavily on the social interaction with other actors in a coach development system (Ciampolini et al., 2019; Nash & Sproule, 2012). Yet, our knowledge about the social dynamics involved in CDs’ practice is limited (Cushion et al., 2019; Allanson et al., 2021). A small number of studies drew on sociological paradigms such as symbolic interactionism to elucidate an otherwise ‘invisible’ practice (Cushion et al., 2019, p. 534). In this research, CDs visibly seek to establish functional and meaningful relationships with coach learners. This appears as a need to develop rapport and a reciprocity in the initial stages whether in a mentoring (e.g., Bailey et al., 2019; Corsby et al., 2020) or coach educator position (e.g., Ciampolini et al., 2021; Garner et al., 2020). Ostensibly this is due to the need to work collaboratively, enacting learner-centered principles and sharing autonomy in the learning process (e.g., Ciampolini et al., 2021; Griffiths et al., 2018; Milistetd et al., 2019). However, particularly in formal settings, this requirement is underwritten by a need for symbolic capital (e.g., credibility, reputation, respect), whether with coach learners (e.g., Garner et al., 2020) or within the coach development system for employment opportunities (Allanson et al., 2021).

These studies found that some CDs were acutely aware of their interactions and reflexively read and write themselves into the social landscape of their work, engaging in micropolitical literacy,

impression management, and demonstrating situationally appropriate emotions and actions in their everyday work (e.g., Cushion et al., 2019; Allanson et al., 2021). This research casts the CD in a formal setting as a performer, requiring expertise in interpersonal knowledge and situational awareness and the ability to work flexibly with their ‘occupational identity’ (Cushion et al., 2019). In a more positive example of the reflexive and intentional ability to adjust behavior, Garner et al., (2020) reported CDs purposefully adopting leadership traits such as humility. Furthermore, this study noted CDs’ balancing of several tasks (i.e., delivering education and assessment) that involved different behaviors and interactions with coach learners. They found that CDs intentionally moved from mostly transformational leadership to mostly transactional leadership behaviors as the CDP shifted towards assessment.

Intention-Action mismatches and evidence of knowledge reproduction. To capture part of how CDs work, the concept of reproduction is used in several of the reviewed studies (n = 8, 15.09%). Drawing primarily on the work of Bourdieu, Bernstein and Foucault, reproduction has been employed to problematize teaching processes that focus on coach learners reproducing knowledge rather than encouraging problem solving and (re)examination of their beliefs and assumptions (e.g., Cushion et al., 2019; Galatti et al., 2019). In these environments created, “for coaches to become conforming and docile” the coach learner is deemed and developed to be ‘effective’ via the, “production of institutionalized and discursive bodies” (Cushion et al., 2021, p. 9). This is achieved by the CDs through use of symbolic capital in “the setting of the parameters for knowledge production to which everyone is required to tacitly respond” (Cushion et al., 2019, p. 534). In some cases, this is directly opposed to the intention of the CDPs and the CDs, occurring uncritically on their part and of the coach learner (e.g., Cushion et al., 2019; Cushion et al., 2021; Downham & Cushion, 2020; Leeder & Cushion, 2020). For example, Watts et al., (2021) found CDs’ practice appropriated legitimate, if questionable, methods and despite recognizing that knowledge of learning is important, their understanding of learning theory was “limited or confused” (p. 9).

Several studies suggest that micropolitical issues in interaction and assessment or competency driven design of policy lead to the inculcation of coach learners (and CDs) and intention-action mismatches (Cushion et al., 2019; Downham & Cushion, 2020; Leeder & Cushion, 2020). For

example, Downham and Cushion (2020) found CDs used dominant discourses to articulate views about and the use of reflection. In their setting, the symbolic power held by the CD(s) and the orchestration of practice resulted in ‘confessional’ reflection that was inauthentic, uncritical, or subject to criticism that further cemented capital and power away from the coach learner(s). However, this is not to say that CDs are necessarily to blame for this repeated issue of reproduction or that CDs should be viewed as a homogenous group. Concerns over job security were also found to lead to reliance upon policy and superficial artefacts of coaching practice, such as session plans (Bailey et al., 2019; Corsby et al., 2020) and privileging, “knowledge acquired from practice” (i.e., coaching experience; Cushion et al., 2019p. 542) to maximize and maintain their capital. Furthermore, a lack of agency (perhaps perceived) in CDs’ delivery in formal education and experiencing pressures to deliver content in a ‘strongly framed approach’ (i.e., the educator maintains control over the delivery) limited ability to produce coach development with learner-centered principles (Dempsey et al., 2021). Indeed, where CDs offer coach learners greater agency over their own development, they reported positive perceptions of value creation via the co-construction of knowledge and development in a safe and challenging learning environment (Mesquita et al., 2015; Milistetd et al., 2018; Milistetd et al., 2019; Rodrigue et al., 2019).

As such, reproduction appears to occur as a consequence of social and organizational structures (e.g., Cushion et al., 2019), assessment driven frameworks, “only satisfying institutional agendas” (Sawiuk, Taylor, & Groom, 2018, p. 629), misappropriation of pedagogical action(s) (e.g., Downham & Cushion, 2020), and restrictions to CD agency (e.g., Dempsey et al., 2021; Sawiuk et al., 2018). These findings in relation to reproduction are confined to a particular group of authors and notably all of the research was in UK CDP settings. Further understanding of whether these issues are also true of formalized CDPs in other countries and sports is therefore needed.

Limitations

The goal of this systematic review was to identify current understanding of the CD through research in which they were directly involved. Whilst this review provides a comprehensive list of research focused on the CD and discusses key themes emerging from that research, it is not without limitations. Firstly, the search strategy was relatively open across multiple roles, organizations, and

cultures as well as within a variety of research designs to reflect and connect research appropriate to the ICCE ‘umbrella’ term. Secondly, there is commentary about the role beyond empirical academic research (e.g., Abraham, 2016; McQuade & Nash, 2015) and in policy development (CIMPSA, 2021; Sport Australia, n.d.). By excluding these sources, further insights may have been missed. However, given the scope of the review and systematic efforts taken to synthesize detail it is reasonable to submit that the studies included provide support for the claims herein. The included studies with varied ontological positions, employing a range of theoretical concepts, and disciplinary techniques and terminology, made analysis complex. Additionally, there are only a limited number of papers for each context, or that are informed by a particular research philosophy and/or theoretical framework. Therefore, although claims have been made about CDs which we have attempted to capture in this review, these are to a large extent still tentative and will require future research to verify, refute or add further depth to our understanding of the face of coach development.

Future Directions

Having examined the current state of research in this area, it is valuable to note possible gaps and recommendations for future research and practicalities regarding the CD. While not exhaustive, these reflect some of the most relevant and pressing knowledge and practice gaps. Providing more detailed descriptions and explanations of participant CDs’ backgrounds and contexts is critical to enable others to understand, evaluate, and ultimately utilize the findings from research. From a methodological perspective, researchers should seek to explicitly display and discuss the philosophical, conceptual, and theoretical frameworks they are employing. This would not only help to increase the quality and robustness of research on this topic (Adom et al., 2018; Kivunja, 2018), but it would also aid in the formation of judgements, applications and transferability of research findings (Anney, 2014; Kivunja, 2018). Indeed, research that adopts multiple qualitative methods and a greater range of CD contexts by sport and geographical locations could support the identification of generalizations and divergencies specific to this role. Moreover, continuing to employ methods such as action research and collaborative research would likely improve this, with researchers forming research and working relationships with key coach development stakeholders.

Concerning specific areas in need of further enquiry, issues of role clarity and professional identity, the form CDs take, are matters raised in both research and in-situ. Whether or not agreement on conceptualization regarding the role of the CD is achieved, researchers should examine and articulate how CDs and their roles are construed, both within research by researchers, and by the CDs themselves and other stakeholders in the coach development system. Additionally, researchers should seek to better understand how CDs become CDs. Moving beyond broad categories such as qualifications and experience, researchers might explore various stakeholders' perspectives on the behaviors and knowledge CDs 'need' and key stakeholders 'look for' when recruiting or training CDs.

As highlighted by our discussion, the practice of the CD requires not only professional knowledge of coach learning, but also the ability to read and write themselves into the social landscape of coach development. Indeed, CDs demonstrate awareness of the various functions they fulfil, and the creation and maintenance of their professional reputation. It appears that these dynamic issues present barriers, or at least complications, to effective CD practice. Therefore, research that examines how CDs navigate and negotiate the coach development landscape would be useful. Additionally, research suggests current misalignment of system paradigm and pedagogical approaches with the lived realities of the CD. Given their central position in a coach development system, it is essential therefore that future research aims to further knowledge of what the CD does that acknowledges and illuminates the influence of the embedded and relational aspect of their specific context. Moreover, contextualizing the CD role to organizational expectations and curricula demands, for example by means of document analysis, would provide an indication of the relative fidelity to, and success of, disseminated curricula designed for the (re)production of coaching practice.

Therefore, continued inter- or trans-disciplinary methods will aid this body of literature to understand its complexities, diversity of perceptions, connect abstract and context-specific information, and build professional and practical knowledge (Ison, 2008). Collaborative processes of co-production (Norström et al., 2020), could help to move away from the current, 'face-value' understanding of the CD to a deeper interrelated knowledge and appreciation of the person and the role. For example, the work of North (2017) produced an ontological map for researching sport

coaching which was utilized by Muir (2018) to construct a conceptual framework to explore coaches' resources, reasoning, strategies, actions and behaviors (Allen & Muir, 2021). Frameworks such as these can then be used as thinking tools to inform coach development and coaching practitioners.

Conclusion

The findings of this systematic review highlight how research into the CD has expanded over the past decade. There has been a clear rise in interest and the beginnings of an increasingly diverse range of research designs seeking to observe and give voice to this important role. Our synthesis across studies found various interpretations of the CD's role and a lack of role clarity from researchers but also in the reports from the CDs themselves. We found that CDs adopt multiple roles both independently of each other and at the same time. Furthermore, although there is little research in this regard, CDs report a process of becoming and maintaining their position(s) that requires a fusion of credentials and opportunity. There is inference of an over-reliance on athletic and coaching experience in the recruitment and retention of CDs that appears to contribute to misappropriated or misaligned actions by CDs in their coach development roles. However, suggesting this issue is the 'fault' of the CD alone presents only part of the problem. Research has found that the training of the CD is frequently insufficient in preparing them for the role and the continued push towards learner-centered practice(s). Additionally, there are significant challenges implementing coach development policy. Dissemination via various layers prior to reaching the CD causes recontextualization issues as CDs experience misalignment to the reality of their practice and insufficient agency to genuinely facilitate individualized and contextually relevant learning. Indeed, several researchers commented on the disconnection between seeking fidelity of practice across a CDP and the possibility of adapting practice to meet the needs of the learner. Comparatively, in a few cases where the CD is afforded greater time and resources to co-construct the coach development journey, this appeared fruitful.

Moreover, studies showed that there are various causal mechanisms that effect CDs engagement in micropolitical practices and performance. Cast as the 'face' of coach development it is reasonable to suggest this partly comes with the performance of being a CD, however, there are reports of CDs being acutely aware of the importance of gaining and maintaining reputation with all actors in a coach development system. Indeed, this may influence the adoption of contextually and

640 traditionally legitimate practice(s), anti-intellectualism, and misunderstood pedagogical theory, which
641 intentionally or unintentionally reproduced coaching practice. Whilst some researchers have begun to
642 address this, further study of the real-life environment of the CD is needed to further our
643 understanding of their process and practice. This research will need to acknowledge the influence of
644 the biography and identity of the CD, the embedded contextual requirements and nuances and the
645 relational nature of the role(s). Thus, CD-related research would benefit from clearer understanding
646 and description of the role frame and positioning of the CD(s) involved.

647 As called for by Callary and Gearity (2019a), progress is being made by bold theorizing and
648 the use of many lenses to provide a breadth of detail. As this review shows, there is growing, if still
649 insufficient, understanding of who the CD is, what the CD does, and how they do coach development.
650 Whilst it is essential that research aims to further elucidate these, it is also important to employ
651 methods that will consider the where and when; the circumstances of CD process and practice. In
652 doing so, CDs and researchers may then employ disciplinary-based concepts to advance our
653 understanding of this key role and their effectiveness in developing coaches.

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References

- Abraham, A. (2016). Task analysis of coach developers: Applications to the FA youth coach educator role. In W. Allison, A. Abraham, & E. Cale (Eds.) *Advances in coach education and development* (pp. 73-85): London, UK: Routledge.
- Abraham, A., Collins, D., Morgan, G., & Muir, B. (2009). Developing expert coaches requires expert coach development: Replacing serendipity with orchestration. In. A. Lorenzo, S.J. Ibáñez, & E. Ortega, (Eds.), *Aportaciones teoricas y practicas para el baloncesto del futuro*, 1-30.
- Abraham, A., Morgan, G., North, J., Muir, B., Duffy, P., Allison, W., . . . 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 (NDM 2013)*, Marseille, France, 21-24 May 2013. Paris, France: Arpege Science Publishing.
https://www.researchgate.net/publication/307980388_Task_Analysis_of_Coach_Developers_Applications_to_The_FA_Youth_Coach_Educator_Role
- Adom, D., Hussein, E.K. & Agyem, J.A. (2018) Theoretical and conceptual framework: Mandatory ingredients of quality research. *International journal of scientific research*, 7(1), 438-441. doi: [10.36106/ijssr](https://doi.org/10.36106/ijssr)
- Allan, V., Vierimaa, M., Gainforth, H. L., & Côté, J. (2018). The use of behaviour change theories and techniques in research-informed coach development programmes: A systematic review. *International Review of Sport and Exercise Psychology*, 11(1), 47-69. doi: [10.1080/1750984X.2017.1286514](https://doi.org/10.1080/1750984X.2017.1286514)
- Allanson, A., Potrac, P., & Nelson, L. (2021). The career experiences of football association coach educators: Lessons in micropolitical literacy and action. *Qualitative research in sport, exercise and health*, 13(2), 360-374. doi:[10.1080/2159676X.2019.1690563](https://doi.org/10.1080/2159676X.2019.1690563)
- Allen, J. & Muir, B. (2021). Coaching. High Performance Athletes. In R. Resende & A.R. Gomes (Eds.), *Coaching for human development and performance in sports*. (pp. 169-198). Switzerland: Springer Nature.
- Anney, V.N. (2014). Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria. *Journal of emerging trends in educational research and policy studies*, 5(2), 272-281.
- Argyris, C., & Schon, D. A. (1974). *Theory in practice: Increasing professional effectiveness*. Hoboken, NJ: Jossey-bass.
- Aromataris, E. & Pearson, A. (2014). The systematic review: an overview. *The American Journal of Nursing*, 114(3), 3-58. doi: [10.1097/01.NAJ.0000444496.24228.2c](https://doi.org/10.1097/01.NAJ.0000444496.24228.2c)
- Bailey, J., Jones, R., & Allison, W. (2019). Sports coaches' mentorship: Experience and a suggested future framework. *European Journal of Human Movement*, 43, 67-85. doi:[10.21135/eurjhm.2019.43.501](https://doi.org/10.21135/eurjhm.2019.43.501)
- Banwell, J., Stirling, A., & Kerr, G. (2019). Towards a process for advancing women in coaching through mentorship. *International Journal of Sports Science & Coaching*, 14(6), 703-713. doi: [10.1177/1747954119883108](https://doi.org/10.1177/1747954119883108)
- Bennie, A., Apoifis, N., Caron, J., Falcão, W., Marlin, D., Bengoechea, E. G., . . . George, E. (2017). A guide to conducting systematic reviews of coaching science research. *International Sport Coaching Journal*, 4(2), 191-205. doi:[10.1123/iscj.2017-0025](https://doi.org/10.1123/iscj.2017-0025)
- Bernstein, B. (2000). *Pedagogy, symbolic control, and identity*. Washington, DC: Rowman and Littlefield.
- Blumberg, P. (2008). *Developing learner-centered teaching: A practical guide for faculty*. Hoboken, NJ: Jossey-Bass.
- Brasil, V. Z., Ramos, V., Milistetd, M., Culver, D. M., & Nascimento, J. V. (2018). The learning pathways of Brazilian surf coach developers. *International Journal of Sports Science & Coaching*, 13(3), 349-361. doi:[10.1177/1747954117739717](https://doi.org/10.1177/1747954117739717)
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative research in sport, exercise and health*, 11(4), 589-597. doi:[10.1080/2159676X.2019.1628806](https://doi.org/10.1080/2159676X.2019.1628806)

- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative research in psychology*, 18(3), 328-352. doi:[10.1080/14780887.2020.1769238](https://doi.org/10.1080/14780887.2020.1769238)
- Braun, V., Clarke, V., Terry, G., & Hayfield, N. (2018). "Thematic Analysis." In Liamputtong, P. (Ed.), *Handbook of Research Methods in Health and Social Sciences*, (pp. 843–860). Singapore: Springer
- Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research. In B. Smith, & A. C. Sparkes (Eds.), *Routledge handbook of qualitative research in sport and exercise*. London: Taylor & Francis (Routledge). doi:[10.4324/9781315762012.ch15](https://doi.org/10.4324/9781315762012.ch15)
- Callary, B., & Gearity, B. (2019a). Coach developer special issue: Global perspectives in coach education for the coach developer. *International Sport Coaching Journal*, 6(3), 261-262. doi:[10.1123/iscj.2019-0067](https://doi.org/10.1123/iscj.2019-0067)
- Callary, B., & Gearity, B. (2019b). Voices From the Field: Q&A With Coach Developers Around the World. *International Sport Coaching Journal*, 6(3), 366-369. doi:[10.1123/iscj.2019-0070](https://doi.org/10.1123/iscj.2019-0070)
- Callary, B., Gearity, B., & Kuklick, C. (2021). Coach developers' confessional tale of an online professional development course for Masters fitness coaches. *Sports coaching review*, 1-22. doi:[10.1080/21640629.2021.1897246](https://doi.org/10.1080/21640629.2021.1897246)
- Campbell, S. M., Fallaize, A., & Schempp, P. (2020). Most Valued Experiences in an International Coach Developer Training Programme. *International Sport Coaching Journal*, 8(1), 130-135. doi:[10.1123/iscj.2019-0063](https://doi.org/10.1123/iscj.2019-0063)
- Cassidy, T., Kidman, L., & Dudfield, O. (2015). Insights into the process of creating a coach development programme: the opportunities and challenges of ethnodrama. *Qualitative research in sport, exercise and health*, 7(5), 589-605. doi:[10.1080/2159676X.2015.1012545](https://doi.org/10.1080/2159676X.2015.1012545)
- Chapman, R., Richardson, D., Cope, E., & Cronin, C. (2020). Learning from the past; a Freirean analysis of FA coach education since 1967. *Sport, Education and Society*, 25(6), 681-697. doi:[10.1080/13573322.2019.1654989](https://doi.org/10.1080/13573322.2019.1654989)
- Ciampolini, V., Camiré, M., Salles, W., Nascimento, J. V., & Milistetd, M. (2021). Researcher, Coach Developer, and Coaches' Perspectives on Learner-Centered Teaching in a Rugby Coach Education Program. *International Sport Coaching Journal*, 1(aop), 1-10. doi:[10.1123/iscj.2020-0100](https://doi.org/10.1123/iscj.2020-0100)
- Ciampolini, V., Milistetd, M., Rynne, S. B., Brasil, V. Z., & Nascimento, J. V. (2019). Research review on coaches' perceptions regarding the teaching strategies experienced in coach education programs. *International Journal of Sports Science & Coaching*, 14(2), 216-228. doi:[10.1177/1747954119833597](https://doi.org/10.1177/1747954119833597)
- Ciampolini, V., Tozetto, A. V., Milan, F. J., Camiré, M., & Milistetd, M. (2020). Lifelong learning pathway of a coach developer operating in a national sport federation. *International Journal of Sports Science & Coaching*, 15(3), 428-438. doi:[10.1177/1747954120912384](https://doi.org/10.1177/1747954120912384)
- CIMSPA. (2021, March). *Coach Developer* (Professional Standard) <http://www.cimspa.co.uk/standards-home/professional-standards-library>
- Cope, E., Partington, M., & Harvey, S. (2017). A review of the use of a systematic observation method in coaching research between 1997 and 2016. *Journal of Sports Sciences*, 35(20), 2042-2050. doi:[10.1080/02640414.2016.1252463](https://doi.org/10.1080/02640414.2016.1252463)
- Corsby, C. L., Lane, A. P., & Spencer, D. R. (2020). Becoming a mentor: an exploration of 'how' student-coaches negotiate mentoring practice. *Sport, Education and Society*, 1-13. doi:[10.1080/13573322.2020.1866525](https://doi.org/10.1080/13573322.2020.1866525)
- Crisp, P. (2018). Sports coach mentoring—impacts on the mentors, not the 'mentees'. A case study of the Active Sussex Coach Support Officers Scheme. *The Sport Journal*, 19, 1-16.
- Cronin, C. J., & Lowes, J. (2016). Embedding experiential learning in HE sport coaching courses: An action research study. *Journal of hospitality, leisure, sport & tourism education*, 18, 1-8. doi:[10.1016/j.jhlste.2016.02.001](https://doi.org/10.1016/j.jhlste.2016.02.001)
- Culver, D. M., Werthner, P., & Trudel, P. (2019). Coach developers as 'facilitators of learning' in a large-scale coach education programme: One actor in a complex system. *International Sport Coaching Journal*, 6(3), 296-306. doi:[10.1123/iscj.2018-0081](https://doi.org/10.1123/iscj.2018-0081)

- Cushion, C. J., Griffiths, M., & Armour, K. (2019). Professional coach educators in-situ: A social analysis of practice. *Sport, Education and Society*, 24(5), 533-546. doi:[10.1080/13573322.2017.1411795](https://doi.org/10.1080/13573322.2017.1411795)
- Cushion, C. J., & Nelson, L. (2013). Coach education and learning: developing the field. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 359-374). Abingdon, UK: Routledge.
- Cushion, C. J., Stodter, A., & Clarke, N. J. (2021). 'It's an experiential thing': the discursive construction of learning in high-performance coach education. *Sport, Education and Society*, 1-18. doi:[10.1080/13573322.2021.1924143](https://doi.org/10.1080/13573322.2021.1924143)
- Dempsey, N., Cope, E., Richardson, D. J., Littlewood, M. A., & Cronin, C. J. (2021). Less may be more: how do coach developers reproduce "learner-centred" policy in practice? *Sports coaching review*, 1-22. doi:[10.1080/21640629.2020.1866851](https://doi.org/10.1080/21640629.2020.1866851)
- Dempsey, N. M., Richardson, D. J., Cope, E., & Cronin, C. J. (2020). Creating and disseminating coach education policy: A case of formal coach education in grassroots football. *Sport, Education and Society*, 1-14. doi:[10.1080/13573322.2020.1802711](https://doi.org/10.1080/13573322.2020.1802711)
- Dohme, L.-C., Rankin-Wright, A. J., & Lara-Bercial, S. (2019). Beyond knowledge transfer: The role of coach developers as motivators for lifelong learning. *International Sport Coaching Journal*, 6(3), 317-328. doi:[10.1123/iscj.2019-0034](https://doi.org/10.1123/iscj.2019-0034)
- Downham, L., & Cushion, C. (2020). Reflection in a high-performance sport coach education program: A Foucauldian analysis of coach developers. *International Sport Coaching Journal*, 7(3), 347-359. doi:[10.1123/iscj.2018-0093](https://doi.org/10.1123/iscj.2018-0093)
- Dray, K., & Howells, K. (2019). Exploring the use of e-portfolios in higher education coaching programs. *International Sport Coaching Journal*, 6(3), 359-365. doi:[10.1123/iscj.2018-0082](https://doi.org/10.1123/iscj.2018-0082)
- Edwards, J., Culver, D., Leadbetter, R., Kloos, K., & Potwarka, L. (2020). "One Piece of a Big Puzzle": Understanding the Roles of Coach Developers Through Interorganizational Relationships in Canada's Coach Education System. *International Sport Coaching Journal*, 7(1), 102-108. doi:[10.1123/iscj.2019-0014](https://doi.org/10.1123/iscj.2019-0014)
- Evans, M. B., McGuckin, M., Gainforth, H. L., Bruner, M. W., & Côté, J. (2015). Coach development programmes to improve interpersonal coach behaviours: a systematic review using the re-aim framework. *British Journal of Sports Medicine*, 49(13), 871-877. doi:[10.1136/bjsports-2015-094634](https://doi.org/10.1136/bjsports-2015-094634)
- Galatti, L. R., dos Santos, Y. Y. S., & Korsakas, P. (2019). A Coach Developers' Narrative on Scaffolding a Learner-Centred Coaching Course in Brazil. *International Sport Coaching Journal*, 6(3), 339-348. doi:[10.1123/iscj.2018-0084](https://doi.org/10.1123/iscj.2018-0084)
- Garner, P., Turnidge, J., Roberts, W., & Côté, J. (2020). How coach educators deliver formal coach education: a full range leadership perspective. *International Sport Coaching Journal*, 8(1), 23-33. doi:[10.1123/iscj.2019-0074](https://doi.org/10.1123/iscj.2019-0074)
- Griffiths, M. A & Armour, K. M., (2012). Mentoring as a formalized learning strategy with community sports volunteers. *Mentoring & Tutoring: Partnership in Learning*, 20(1), 151-173. <https://doi.org/10.1080/13611267.2012.645605>
- Griffiths, M. A., Armour, K. M., & Cushion, C. J. (2018). 'Trying to get our message across': Successes and challenges in an evidence-based professional development programme for sport coaches. *Sport, Education and Society*, 23(3), 283-295. doi:[10.1080/13573322.2016.1182014](https://doi.org/10.1080/13573322.2016.1182014)
- Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., . . . O'Cathain, A. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Education for Information*, 34(4), 285-291. doi:[10.3233/EFI-180221](https://doi.org/10.3233/EFI-180221)
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., . . . Nicolau, B. (2019). Improving the content validity of the mixed methods appraisal tool: a modified e-Delphi study. *Journal of clinical epidemiology*, 111, 49-59. doi:[10.1016/j.jclinepi.2019.03.008](https://doi.org/10.1016/j.jclinepi.2019.03.008)
- Horgan, P., & Daly, P. (2015). The role of the coach developer in supporting and guiding coach learning: A commentary. *International Sport Coaching Journal*, 2(3), 354-356. doi:[10.1123/iscj.2015-0077](https://doi.org/10.1123/iscj.2015-0077)

- Hussain, A., Trudel, P., Patrick, T., & Rossi, A. (2012). Reflections on a novel coach education program: A narrative analysis. *International Journal of Sports Science & Coaching*, 7(2), 227-240. doi:[10.1260/1747-9541.7.2.227](https://doi.org/10.1260/1747-9541.7.2.227)
- International Council for Coaching Excellence (2014). *International Coach Developer Framework. (Version 1.1)*. ICCE, http://www.icce.ws/assets/files/documents/PC_ICDF_Booklet_Amended%20SSept%2014.pdf
- Ison, R., (2008). Methodological challenges of trans-disciplinary research: some systemic reflections. *Natures Sciences Sociétés*. 16(3), 241-251. doi:[10.1051/nss:2008052](https://doi.org/10.1051/nss:2008052)
- Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. (Vol.1) London, UK: Routledge.
- Ji, X., Xu, J., Cheng, L., Sun, J., & Zhang, X. (2021). A Chinese perspective on the actual and preferred sources of coaching knowledge. *International Journal of Sports Science & Coaching*, 16(5), 1086-1096. doi:[10.1177/17479541211018769](https://doi.org/10.1177/17479541211018769)
- Kivunja, C. (2018). Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International Journal of Higher Education*, 7(6), 44-53. doi:[10.5430/ijhe.v7n6p44](https://doi.org/10.5430/ijhe.v7n6p44)
- Kloos, K., & Edwards, J. (2021). Understanding the Perceptions of Master Coach Developers in the National Coaching Certification Program. *International Sport Coaching Journal*, 1(aop), 1-11. doi:[10.1123/iscj.2021-0016](https://doi.org/10.1123/iscj.2021-0016)
- Koh, K. T., Ho, X. Y., & Koh, Y. (2017). The developmental experiences of basketball mentor coaches. *International Journal of Sports Science & Coaching*, 12(4), 520-531. doi:[10.1177/1747954117718048](https://doi.org/10.1177/1747954117718048)
- Kolić, P.V., Groom, R., Nelson, L. & Taylor, W.G., (2020). (Dis) joint (ed) action, reciprocity, and professional status: an ethnographic investigation of two UKCC CL4 awards. *Sport, Education and Society*, 25(9), 1043-1057. <https://doi.org/10.1080/13573322.2019.1687443>
- Kraft, E., Culver, D.M. & Din, C. (2020). Exploring a women-only training program for coach developers. *Women in Sport and Physical Activity Journal*, 28(2), 173-179. doi:[10.1123/wspaj.2019-0047](https://doi.org/10.1123/wspaj.2019-0047)
- Kram, K. E. (1988). *Mentoring at work: Developmental relationships in organizational life*. Lanham, MD: University Press of America.
- Langan, E., Blake, C., & Lonsdale, C. (2013). Systematic review of the effectiveness of interpersonal coach education interventions on athlete outcomes. *Psychology of Sport and Exercise*, 14(1), 37-49. doi:[10.1016/j.psychsport.2012.06.007](https://doi.org/10.1016/j.psychsport.2012.06.007)
- Langseth, T. (2012). Liquid ice surfers—the construction of surfer identities in Norway. *Journal of adventure education & outdoor learning*, 12(1), 3-23. doi:[10.1080/14729679.2011.599987](https://doi.org/10.1080/14729679.2011.599987)
- Lara-Bercial, S., & Mallett, C. J. (2016). The practices and developmental pathways of professional and Olympic serial winning coaches. *International Sport Coaching Journal*, 3(3), 221-239. doi:[10.1123/iscj.2016-0083](https://doi.org/10.1123/iscj.2016-0083)
- Leeder, T., & Cushion, C. (2020). The reproduction of ‘coaching culture’: a Bourdieusian analysis of a formalised coach mentoring programme. *Sports coaching review*, 9(3), 273-295. doi:[10.1080/21640629.2019.1657681](https://doi.org/10.1080/21640629.2019.1657681)
- Leeder, T. M., Russell, K., & Beaumont, L. C. (2019). “Learning the hard way”: Understanding the workplace learning of sports coach mentors. *International Sport Coaching Journal*, 6(3), 263-273. doi:[10.1123/iscj.2018-0069](https://doi.org/10.1123/iscj.2018-0069)
- Lefebvre, J. S., 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(6), 887-899. doi:[10.1177/1747954116676116](https://doi.org/10.1177/1747954116676116)
- Lewis, C. J., Roberts, S. J., & Andrews, H. (2018). ‘Why am I putting myself through this?’ Women football coaches’ experiences of the Football Association's coach education process. *Sport, Education and Society*, 23(1), 28-39. doi:[10.1080/13573322.2015.1118030](https://doi.org/10.1080/13573322.2015.1118030)
- Lugueti, C., Kirk, D., & Oliver, K. L. (2019). Towards a pedagogy of love: exploring pre-service teachers’ and youth’s experiences of an activist sport pedagogical model. *Physical education and sport pedagogy*, 24(6), 629-646. doi:[10.1080/17408989.2019.1664499](https://doi.org/10.1080/17408989.2019.1664499)

- Mallett, C. J., Rynne, S. B., & Billett, S. (2016). Valued learning experiences of early career and experienced high-performance coaches. *Physical education and sport pedagogy*, 21(1), 89-104. doi:10.1080/17408989.2014.892062
- Martin, E. M., Moorcroft, S. J., & Johnson, T. G. (2019). Backwards design and program level approaches to coach development in higher education. *International Sport Coaching Journal*, 6(3), 329-338. doi:10.1123/iscj.2018-0071
- Mays, N., Pope, C. & Popay, J. (2005). Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. *Journal of health services research & policy*, 10(1 suppl), 6-20. doi:10.1258/1355819054308576
- McQuade, S., & Nash, C. (2015). The role of the coach developer in supporting and guiding coach learning. *International Sport Coaching Journal*, 2(3), 339-346. doi:10.1123/iscj.2015-0059
- Mesquita, I., Coutinho, P., De Martin-Silva, L., Parente, B., Faria, M., & Afonso, J. (2015). The value of indirect teaching strategies in enhancing student-coaches' learning engagement. *Journal of sports science & medicine*, 14(3), 657-668. PubMed ID: 26336354
- Mikkonen, K. and Kääriäinen, M. (2020). The application of content analysis in nursing science research, In H. Kyngäs, K. Mikkonen, & M. Kääriäinen (Eds.), *Content analysis in systematic reviews*. (pp.105-115). New York, US: Springer.
- Milistetd, M., Peniza, L., Trudel, P., & Paquette, K. (2018). Nurturing high-performance sport coaches' learning and development using a narrative-collaborative coaching approach. *LASE Journal of Sport Science*, 9(1), 6-38. doi:10.2478/ljss-2018-0001
- Milistetd, M., Salles, W.D.N., Backes, A.G., Mesquita, I. & Nascimento, J.V.D. (2019) Learner-centered teaching in a university-based coach education: First attempts through action research inquiry. *Inteernational Journal of Sports Science & Coaching*, 14(3), 294-309. doi:10.1177/1747954119842957
- Moher, D., Jadad, A.R., Nichol, G., Penman, M., Tugwell, P. and Walsh, S. (1995). Assessing the quality of randomized controlled trials: an annotated bibliography of scales and checklists. *Controlled clinical trials*, 16(1), 62-73. doi.org/10.1016/0197-2456(94)00031-W
- Muir, B. (2018). *Coach learning and development in the performance domain: An embedded, relational and emergent intervention strategy* PhD. Thesis. Leeds Beckett University.
- Nash, C., & Sproule, J. (2012). Coaches perceptions of their coach education experiences. *International journal of sport psychology*, 43(1), 33. 10.7352/ijsp.2012.43.033
- Norman, L. (2019). "I Don't Really Know What the Magic Wand Is to Get Yourself in There": Women's Sense of Organizational Fit as Coach Developers. *Women in Sport and Physical Activity Journal*, 28(2), 1-12. doi:10.1123/wspaj.2019-0020
- Norman, L., Rankin-Wright, A. J., & Allison, W. (2018). "It's a concrete ceiling; It's not even glass": Understanding tenets of organizational culture that supports the progression of women as coaches and coach developers. *Journal of Sport and Social Issues*, 42(5), 393-414. doi:10.1177/0193723518790086
- Norström, A.V., Cvitanovic, C., Löf, M.F., West, S., Wyborn, C., Balvanera, P., Bednarek, A.T., Bennett, E.M., Biggs, R., de Bremond, A. & Campbell, B.M. (2020). Principles for knowledge co-production in sustainability research. *Nature sustainability*, 3(3), 182-190. doi:10.1038/241893-019-0448-2
- 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), 239-256. doi:10.1260/1747-9541.5.2.239
- North, J. (2017). *Sport coaching research and practice: Ontology, interdisciplinarity and critical realism*. London:Routledge.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., . . . Brennan, S. E. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *Bmj*, 372. doi:10.1136/bmj.n71
- Paquette, K., & Trudel, P. (2018). Learner-centered coach education: Practical recommendations for coach development administrators. *International Sport Coaching Journal*, 5(2), 169-175. doi:10.1123/iscj.2017-0084

- Paquette, K., Trudel, P., Duarte, T., & Cundari, G. (2019). Participating in a learner-centered coach education program: Composite vignettes of coaches' and coach educators' experiences. *International Sport Coaching Journal*, 6(3), 274-284. doi:[10.1123/iscj.2018-0085](https://doi.org/10.1123/iscj.2018-0085)
- Partington, M., O'Gorman, J., Greenough, K., & Cope, E. (2021). An Investigation Into Coach Developers' Theories in Practice, Learning, and Development on a Continuing Professional Development Course. *International Sport Coaching Journal*, 1(aop), 1-9. doi:[10.1123/iscj.2020-0124](https://doi.org/10.1123/iscj.2020-0124)
- Pawson, R. (2006). Digging for nuggets: how 'bad' research can yield 'good' evidence. *International Journal of Social Research Methodology*, 9(2), 127-142. doi:[10.1080/13645570600595314](https://doi.org/10.1080/13645570600595314)
- Piggott, D. (2012). Coaches' experiences of formal coach education: a critical sociological investigation. *Sport, Education and Society*, 17(4), 535-554. doi:[10.1080/13573322.2011.608949](https://doi.org/10.1080/13573322.2011.608949)
- Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., ... Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC methods programme*. Available at: <https://doi.org/10.13140/2.1.1018.4643>
- Pope, C., Mays, N. and Popay, J. (2007) *Synthesising qualitative and quantitative health evidence: A guide to methods: A guide to methods*. UK: McGraw-Hill Education.
- Redgate, S., Potrac, P., Boocock, E., & Dalkin, S. (2020). Realist evaluation of the Football Association's Post Graduate Diploma (PG Dip) in Coach Development. *Sport, Education and Society*, 1-16. doi:[10.1080/13573322.2020.1847066](https://doi.org/10.1080/13573322.2020.1847066)
- Reid, P., & Harvey, S. (2014). We're delivering Game Sense... aren't we? *Sports coaching review*, 3(1), 80-92. doi:[10.1080/21640629.2014.967519](https://doi.org/10.1080/21640629.2014.967519)
- Roberts, J. (2004). *Coach Development Officers - Version 9*. 45, Leeds: Sports Coach UK.
- Rodrigue, F., Trudel, P., & Boyd, J. (2019). Learning from practice: The value of a personal learning coach for high-performance coaches. *International Sport Coaching Journal*, 6(3), 285-295. doi:[10.1123/iscj.2018-0078](https://doi.org/10.1123/iscj.2018-0078)
- Rodrigues, H., Brasil, V. Z., Milistetd, M., & Trudel, P. (2021). Learner-centered teaching in a Higher Education course: a case study with a recognized researcher in Sports Coaching. *Research, Society and Development*, 10(3), e44910313568, 1-17. doi:[10.33448/rsd-v10i3.13568](https://doi.org/10.33448/rsd-v10i3.13568)
- Sarkis-Onofre, R., Catalá-López, F., Aromataris, E., & Lockwood, C. (2021). How to properly use the PRISMA Statement. *Systematic Reviews*, 10(1), 1-3. doi:[10.1186/s13643-021-01671-z](https://doi.org/10.1186/s13643-021-01671-z)
- Sawiuk, R., Taylor, W.G. & Groom, R., (2017). An analysis of the value of multiple mentors in formalised elite coach mentoring programmes. *Physical Education and Sport Pedagogy*, 22(4), 403-413. <https://doi.org/10.1080/17408989.2016.1268587>
- Sawiuk, R., Taylor, W. G., & Groom, R. (2018). Exploring formalized elite coach mentoring programmes in the UK: 'We've had to play the game'. *Sport, Education and Society*, 23(6), 619-631. doi:[10.1080/13573322.2016.1248386](https://doi.org/10.1080/13573322.2016.1248386)
- Schein, E. (2004). *Organisational Culture and Leadership* (3rd ed.). San Fransisco, CA: Jossey-Bass.
- Silva, E. J. D., Evans, M. B., Lefebvre, J. S., Allan, V., Côté, J., & Palmeira, A. (2020). A systematic review of intrapersonal coach development programs: Examining the development and evaluation of programs to elicit coach reflection. *International Journal of Sports Science & Coaching*, 15(5-6), 818-837. doi:[10.1177/1747954120943508](https://doi.org/10.1177/1747954120943508)
- Sport Australia. (n.d.). *What is a coach developer and what do they do?* https://www.sportaus.gov.au/coaches_and_officials/sport_specific_training/coach_developer_resources
- Stodter, A., Cope, E. & Townsend, R.C., (2021). Reflective conversations as a basis for sport coaches' learning: a theory-informed pedagogic design for educating reflective practitioners. *Professional Development in Education*, 1-16. <https://doi.org/10.1080/19415257.2021.1902836>
- Stodter, A., & Cushion, C. J. (2017). What works in coach learning, how, and for whom? A grounded process of soccer coaches' professional learning. *Qualitative research in sport, exercise and health*, 9(3), 321-338. doi:[10.1080/2159676X.2017.1283358](https://doi.org/10.1080/2159676X.2017.1283358)
- Stodter, A., & Cushion, C. J. (2019). Layers of learning in coach developers' practice-theories, preparation and delivery. *International Sport Coaching Journal*, 6(3), 307-316. doi:[10.1123/iscj.2018-0067](https://doi.org/10.1123/iscj.2018-0067)

- Stoszkowski, J., & Collins, D. (2017). Nirvana or never-never land: does heutagogy have a place in coach development? *International Sport Coaching Journal*, 4(3), 353-358. doi:10.1123/iscj.2017-0001
- Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach-learner's perspective: Considerations for coach development administrators. In P. Potrac, W. Gilbert, and J. Denison (Eds.), *Routledge Handbook of Sports Coaching* (pp. 375-387). London, UK: Routledge. doi:10.4324/9780203132623.ch30
- Van Hoya, A., Larsen, T., Sovik, M., Wold, B., Heuzé, J. P., Samdal, O., . . . Sarrazin, P. (2015). Evaluation of the Coaches Educators training implementation of the PAPA project: A comparison between Norway and France. *Scandinavian journal of medicine & science in sports*, 25(5), 539-546. doi:10.1111/sms.12352
- Van Mullem, P., & Gano-Overway, L. (2021). *To Be a Better Coach: A Guide for the Youth Sport Coach and Coach Developer*. Washington, DC: Rowman & Littlefield.
- Vinson, D., Simpson, H.J. & Cale, A., (2022). 'I felt I'd lost myself—not really knowing who I was': coach developer learning as negotiating identity through engagement, imagination and alignment. *Sport, Education and Society*, 1-17. <https://doi.org/10.1080/13573322.2022.2038126>
- Walker, L. F., Thomas, R., & Driska, A. P. (2018). Informal and nonformal learning for sport coaches: A systematic review. *International Journal of Sports Science & Coaching*, 13(5), 694-707. doi:10.1177/1747954118791522
- Watts, D. W., Cushion, C. J., & Cale, L. (2021). Exploring professional coach educators' journeys and perceptions and understandings of learning. *Sport, Education and Society*, 1-15. doi:10.1080/13573322.2021.1887115
- Weimer, M. (2002). *Learner-centered teaching: Five key changes to practice*. Hoboken, NJ: Jossey-Bass.

Figure 1.
PRISMA flow diagram documenting the study selection criteria.

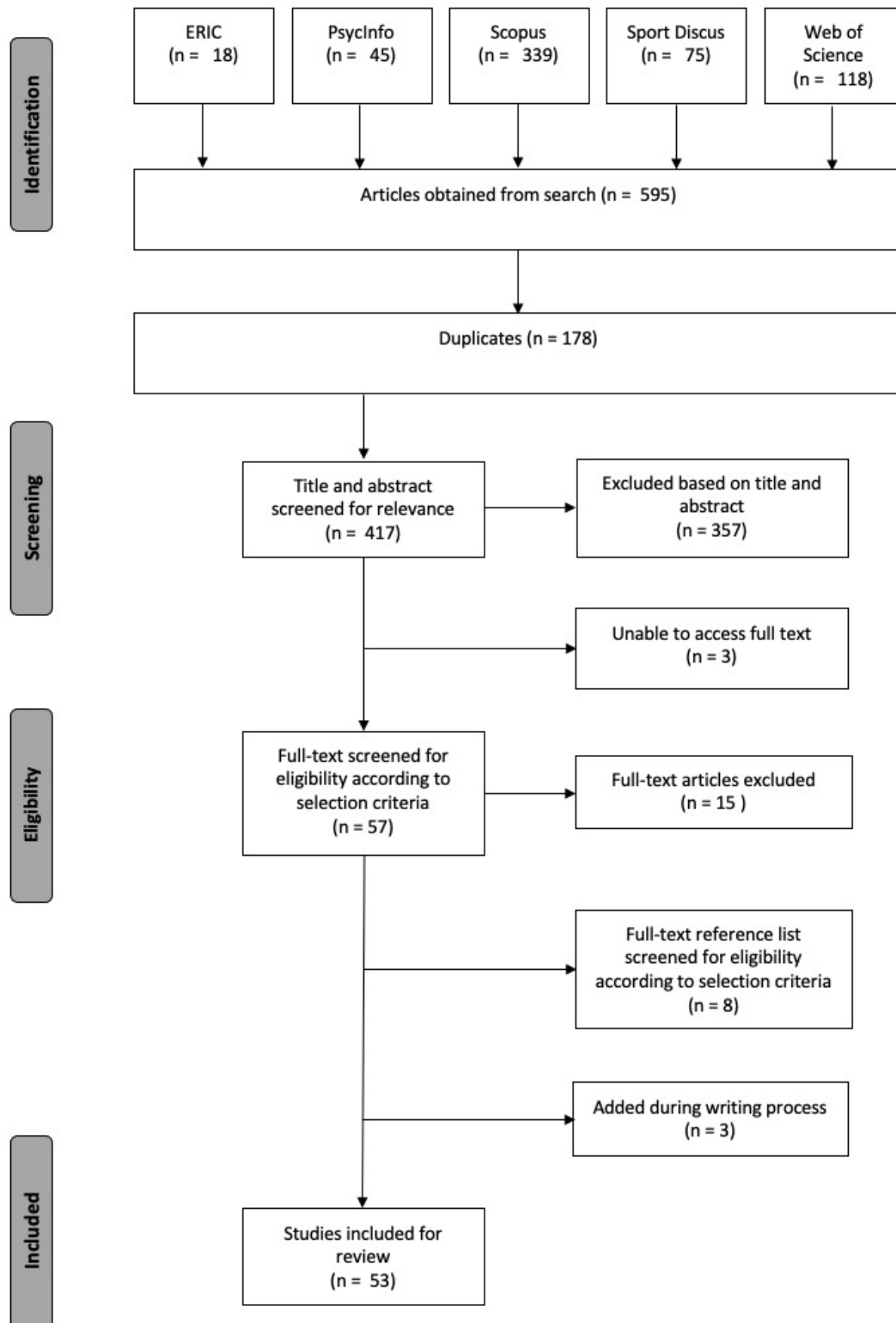


Figure 2.
Publication timeline showing number of included studies by year and methodology (Note: 1 paper from 2022 included and not shown; ‘Multiple Qualitative’).

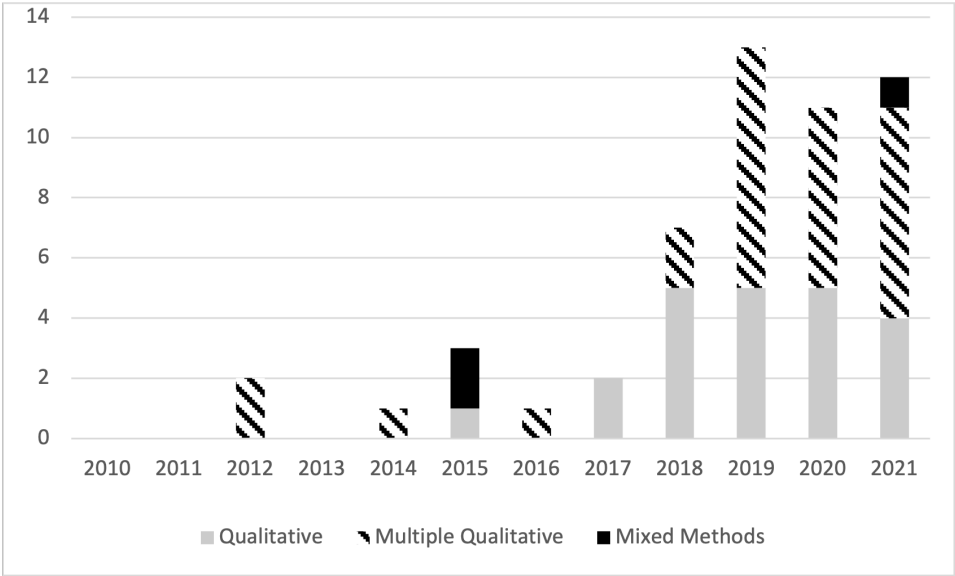
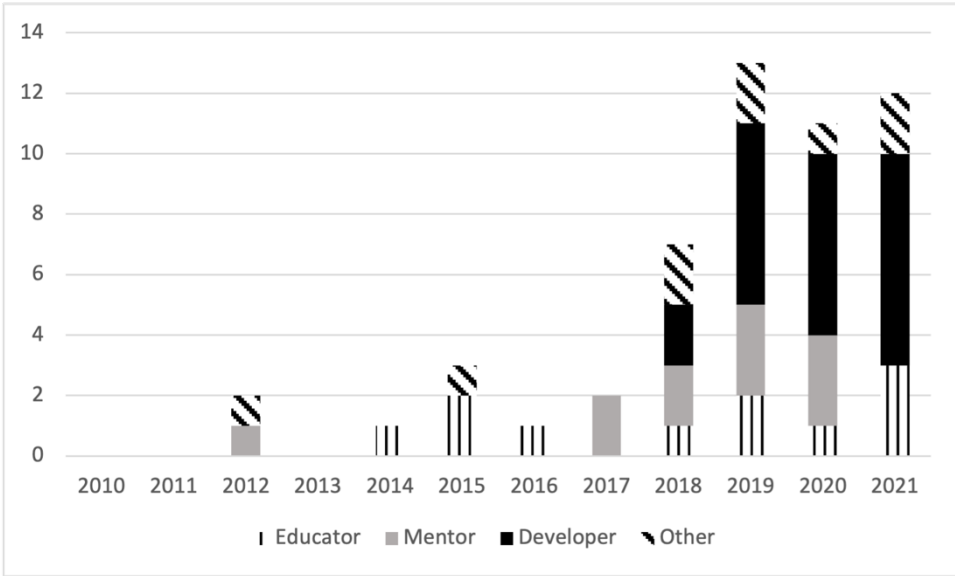


Figure. 3
Publication timeline showing number of included studies by year and role descriptor of the sampled CD (Note: 1 paper from 2022 included and not shown; ‘Developer’).



1017 **Table 2.**

1018 Higher order themes and themes organized by overarching themes, detailing the clustering of findings from the reviewed studies

1019

Overarching theme	Themes	Sub-Themes
Who are they?	(In)Congruences with conceptualisations and role clarity of the CD	Multiple Role(s) and role frames Multiple components to the role
	Limited understanding of and inconsistencies in CDs' opportunities and pathways	Varying requisite credentials for CD roles Inconsistent opportunities for professional roles Experience of, and development of leadership qualities
	Training of the CD appears inadequate	Training inadequately prepares CD for role(s)
		Training programs are insufficient in time and content Difficulties in implementing training into practice
What do they do?	Multiple functions of the CD contribute to a lack of role clarity	CD role is multidisciplinary
		Responsibilities of the CD overlap
	Top-down approaches to CDPs hinder the fidelity of CDs' implementation	Recontextualization of disseminated policy
		Need for fidelity in delivery
How do they operate?	Shifts to learner-centered design presents challenges for CDs	Framing of curriculum for delivery

(Lack of) CD agency in delivery

Need for appropriate resources

Understanding of social dynamics and
broader relational systems involved in
CD practice is limited

Development and maintenance of relationships

Development and maintenance of reputation

Intention-Action mismatches and
evidence of knowledge reproduction.

Legitimacy of CD practices

(Mis)Alignment with theoretical 'best' practice

The (By)Product of coach development programs

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1022 **Table 1.**

1023 Articles Regarding the Role of the Coach Developer Published in English Peer-Reviewed Journals

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	Article Details			Research context		Sample Details			Study Details				
	Authors	Year	Country	Organisation	Sport	n.	Age (M, R)	Gender	Data Collection	Data Analysis	MMAT	Framework	Theorists
1	Allanson, et al.	2021	England, UK	NSO The FA	Soccer	4	48.75, 27-59	3M, 1F	Interview	Phronetic Iterative	100%	Interactionist- Dramaturgical	Kelchtermans Goffman Hochschild
2	Bailey, et al.	2019	United Kingdom	NSO	ø	8	ø	ø	Focus Group, Interview	Thematic	86%	ø	ø
3	Banwell, et al.	2019	Canada	NSO CAC	Mix	7	ø	3M, 4F	Survey, Interview	Descriptive Thematic	100%	Theoretical Mentorship Model	Zachary
4	Brasil, et al.	2018	Brazil	NSO IBRASURF	Surfing	5	41.4, ø	3M, 2F	Interview	Thematic	86%	ø	ø

5	Callary, et al.	2019 b	Mix	NSO HEI	Mix	8	∅	∅	Survey	∅	57%	∅	∅
6	Callary, et al.	2021	Canada	HEI	S&C	3	∅	∅	Email, Document Analysis, Interview, Journals	Ethnography	100%	Confessional Tales	Van Maanen
7	Campbell, et al.	2020	Japan	NSO NCDA	Mix	20	∅	15M, 5F	Survey	∅	57%	∅	∅
8	Cassidy, et al.	2015	New Zealand	NSO	∅	1	∅	∅	Interview	Creative non-fiction	100%	∅	∅
9	Chapman, et al.	2020	England, UK	NSO The FA	Soccer	16	∅	Mix (∅)	Document Analysis, Interview	Thematic	100%	Pedagogy	Freire
10	Ciampolini, et al.	2020	Brazil	NSO BRF	Rugby	1	40, ∅	M	Rappaport Time Line, Interview	Interpretative Phenomenological	100%	Experiential Learning	Jarvis

11	Ciampolini, et al.	2021	Brazil	NSO BRG	Rugby	1	40, ø	M	Observation, Field Notes, Interview	Thematic	86%	Learner-Centered Teaching	Weimer
12	Corsby, et al.	2020	ø	HEI	Mix	10	ø, 20-23	ø	Focus Group	Reflexive Thematic	100%	ø	ø
13	Crisp	2018	England, UK	LSO	Mix	6	ø	ø	Meetings	Inductive Content Analysis	86%	ø	ø
14	Cronin & Lowes	2016	United Kingdom	HEI	Mix	1	ø	ø	Observation, Group Interview, Reflection	Thematic	100%	Action Research	Stenhouse
15	Culver, et al.	2019	Canada	NSO NCCP	Mix	26	ø	14M, 12F	Interview	Thematic	86%	Cognitive Structure	Moon
16	Cushion, et al.	2021	ø	Mix	Mix	14	ø	ø	Interview, Observation, Document Analysis,	Discourse	100%	Discursive construction	Willig; Foucault

17	Cushion, et al.	2019	ø	NSO	ø	4	ø, 30-55	M	Interview, Field Notes, Focus Groups	Thematic	100%	Epistemic Reflexivity	Bourdieu
18	Dempsey, et al.	2020	England, UK	NSO The FA	Soccer	14	45.21 28-66	12M, 2F	Interview	Thematic	100%	Pedagogy	Priestley and Humes; Bernstein
19	Dempsey, et al	2021	England, UK	NSO The FA	Soccer	3	47, 45-52	M	Document Analysis, Interview, Field Notes, Media	Thematic	100%	Creative Non-Fiction Pedagogy	Erickson et al. Bernstein
20	Downham & Cushion	2020	United Kingdom	NSO	Mix	11	ø	ø	Observation, Field Notes, Interview	Thematic	100%	Power and Knowledge	Foucault
21	Dray & Howells	2019	United Kingdom	HEI	Mix	1	ø	ø	Reflection	ø	57%	ø	ø
22	Edwards, et al.	2020	Canada	NSO NCCP	Mix	ø	ø	ø	Interview,	ø	57%	Interorganisational Relationships	Mitchell

									Document Analysis				
23	Galatti, et al.	2019	Brazil	HEI	Mix	2	ø	ø	Reflection	ø	57%	ø	ø
24	Garner, et al.	2020	France	NSO	Alpine Skiing	4	ø, 40-50	ø	Interview, CLAS	Thematic	100%	Critical Realism Leadership Model	Bhaskar Bass & Riggio
25	Griffiths, et al.	2012	United Kingdom	LSO	ø	6	36, ø	4M, 2F	Questionnaire, Focus Group, Interview	Grounded Theory	100%	ø	ø
26	Griffiths, et al.	2018	United Kingdom	NSO	ø	8	ø	ø	Interview, Focus Group, Document Analysis	Grounded Theory	100%	Pedagogy	Bernstein
27	Hussain, et al.	2012	Canada	NSO Triathlon Canada	Triathlon	1	ø	ø	Interview, Field Notes, Conversations, Memos	Thematic	100%	ø	ø

28	Kloos & Edwards	2021	Canada	NSO CAC	Mix	10	ø	6M, 4F	Interviews	Constant Comparative	100%	Constructivist Grounded Theory	Charmaz
29	Koh, et al.	2017	Singapore	NSO BAS	Basketball	4	50.5, 33-68	ø	Interview	Narrative Research	100%	ø	ø
30	Kolić, et al.	2020	United Kingdom	NSO	Mix	3	ø	ø	Observation, Field Notes, Interview	Thematic	100%	Symbolic Interactionism	Blumer Strauss
31	Kraft, et al.	2020	Canada	NSO	Mix	4	ø	1M, 3F	Interview	ø	100%	Ecological Systems Value Creation	Bronfenbrenner Wenger et al.
32	Leeder & Cushion	2020	United Kingdom	NSO	ø	14	35.21 28-61	ø	Interview	Thematic	100%	Social Constructionism	Bourdieu
33	Leeder, et al.	2019	United Kingdom	NSO	ø	26	40 ø	23M, 3F	Interview, Focus Group	Thematic	100%	Social Constructionism	Bourdieu
34	Martin, et al.	2019	USA	HEI	ø	ø	ø	ø	Reflection	ø	29%	ø	ø

35	Mesquita, et al.	2015	Portugal	HEI	Volleyball	1	ø	M	Observation, Field Notes, Recordings, Focus Group, Reflective Journal	Observation Instrument Thematic	100%	ø	ø
36	Millistetd, et al.	2018	Brazil	ø	Tennis	1	34, ø	M	ø	ø	43%	Narrative Collaborative Coaching Appreciative Inquiry	Stelter et al. Cooperrider
37	Millistetd, et al.	2019	Brazil	HEI	P.E.	1	ø	M	Focus Group, Reflective Journal	Thematic	100%	Learner-Centered Teaching	Weimer
38	Norman	2020	United Kingdom	NSO	Soccer	12	ø, 22-50	F	Interview	Constant Comparative	100%	Organisational Culture	Schein
39	Norman, et al.	2018	United Kingdom	NSO	Soccer	10	ø, 22-50	F	Interview	Thematic	100%	Organisational Culture	Schein

40	Paquette, et al.	2018	Canada	NSO Golf Canada	Golf	7	47.3 27-70	6M, 1F	Document Analysis, Interview	Content Thematic	100%	Learner-Centered Teaching	Blumberg
41	Paquette, et al.	2019	Canada	NSO Golf Canada	Golf	6	ø	5M, 1F	Survey, Interview, Media	Thematic	100%	Learner-Centered Teaching	Weimer
42	Partington, et al.	2021	England, UK	NSO	ø	23	ø	17M, 6F	Observation, Focus Group, Interview, Document Analysis	Phronetic Iterative	100%	Theory in Practice	Argyris and Schon
43	Redgate, et al.	2020	England, UK	NSO The FA	Soccer	ø	ø	ø	Document Analysis, Interview	Content Analysis	100%	Normalisation Process Theory	May and Finch
44	Reid & Harvey	2014	England, UK	NSO RFU	Rugby	4	ø	ø	Interview, Field Notes, Questionnaire	Constant Comparative	100%	Game Sense	Light

										Grounded Theory			
45	Rodrigue, et al.	2019	Canada	NSO	Rugby	1	29, ø	M	Narrative Interview, Conversations, Document Analysis	Narrative	100%	Narrative Collaborative Coaching Value Creation	Drake et al. Wenger et al.
46	Rodrigues, et al.	2021	ø	HEI	ø	1	ø	ø	Interview, Reflection, Observation	ø	100%	Learner-Centered Teaching	Weimer
47	Sawiuk, et al.	2017	United Kingdom	NSO	Mix	15	45.4, 24-64	11M, 4F	Interview	Thematic	100%	Mentoring at work	Kram
48	Sawiuk, et al.	2018	England, UK	NSO	ø	3	47, 35-59	M	Interview	Thematic	100%	Social Constructionism	Bourdieu
49	Stodter & Cushion	2019	England, UK	NSO	ø	3	47, 35-59	M	Observation, Media, Field Notes, Document	Integrated	100%	Signature Pedagogy	Schulman

									Analysis, Interview				
50	Stodter, et al.	2021	United Kingdom	HEI	Soccer	1	29, ø	ø	Reflective, Interview, Conversations, Focus Group	Thematic	100%	Reflective Practice	Multiple
51	Van Hoyer, et al.	2015	France, Norway	NSO	Soccer	12	41.5, ø	ø	Video Recordings, Questionnaire	Observation Scale	100%	RE-AIM Framework	Glasgow et al.
52	Vinson, et al.	2022	United Kingdom	NSO	ø	24	40.65, ±9.5	ø	Reflective materials, Focus Groups, Field Notes, Interviews, Conversations	Thematic	100%	Participatory and Appreciative Action and Reflection Landscapes of Practice	Ghaye et al. Wenger-Trayner
53	Watts, et al.	2021	United Kingdom	NSO	Mix	16	ø, 24-54	13M, 3F	Interview	Thematic	100%	Social Constructionism	Bourdieu

- 1025 *Note:* M = male; F = female; MMAT = Mixed Methods Appraisal Tool; BAS = Basketball Association of Singapore; BRF = Brazil Rugby Federation; CAC = Coaching Association of Canada; HEI = Higher Education
- 1026 Institution; IBRASURF= Instituto Brasileiro de Surf; LSO = Local Sports Organisation; NCDA = The NSSU Coach Developer Academy; NCCP = National Coaching Certification Program; NSO = National Sports
- 1027 Organization; PE = Physical Education; RE-AIM = Reach, Effectiveness, Adoption, Implementation, and Maintenance; RFU = Rugby Football Union; The FA = The Football Association.
- 1028