Original research article

'It's about putting the learning into context': A multimethod, multiple perspective exploration of the process of learning in introductory coach education

Justine B. Allen[1] iD, Colleen Reid[2], and Stephen Macdonald[3]

Abstract
Coach education continues to be an integral part of coaches' learning journey, but their usefulness has also been questioned. Given the disparity in research findings, the purpose of this study was to further our understanding of the role of the coach developer in the learning process within introductory level coach education courses. Drawing on Moon's stages of learning and using multiple methods (observation, interviews, focus groups), we explored multiple perspectives (coaches, coach developers and researcher observer) of the activities and learning situations within introductory courses (judo, basketball, paddlesports). In total, three courses were observed, each lasting two days (48 hours of observation), six coach developers participated in an interview (45–60 minutes each) and 18 coaches participated in one of five focus groups (20–300 minutes each). Through our thematic analysis, we developed three themes: structure supports the learning process; National Governing Body resources are just a starting point for learning; a deep approach to learning can be facilitated. Our findings suggest that despite criticisms of large-scale approaches to coach education, they were useful to coaches and coach developers were able to facilitate some deep learning. Furthermore, the quality of coach education programmes was largely dependent on the expertise of coach developers in their roles. Questions are raised about the conceptualisation of learner-centred approaches to coach education delivery.

Introduction

Coach education programmes are an integral part of most coaches' learning and development journeys. Successful completion is often required for entry into coaching, part of licensing processes and an important step towards professionalisation.[1–3] A common narrative from research examining coaches' perspectives on courses is that coaches diverge in their opinion of the usefulness of courses, courses have limited impact on coaches' practice,[4–11] and coaches desire personally relevant and practically usable content, delivered through methods that encourage coaches' active participation in learning.[4,5,7,11–13] Despite concerns about the utility of coach education courses, they continue to be a relatively efficient way to engage large numbers of coaches in learning and development.[14] There is also evidence that for some coaches, such as less experienced coaches, coach education remains an important learning opportunity.[7,14–16] Given

the disparity in research findings and the tendency to privilege the coach's perspective over other stakeholders such as coach developers, the purpose of the study was to draw on multiple perspectives (i.e., coaches, coach developers and researcher observer) to further our understanding

---

[1]Department of Sport, Exercise and Rehabilitation, Northumbria University, Newcastle Upon Tyne, England
[2]Scottish Hockey, Glasgow, Scotland
[3]Faculty of Health and Sport Sciences, University of Stirling, Stirling, Scotland

Corresponding author:
Justine B. Allen, Department of Sport, Exercise and Rehabilitation, Northumbria University, Northumberland Building 228, Newcastle Upon Tyne, NE1 8ST, England.
Email: justine.allen@northumbria.ac.uk

of the role of the coach developer in the learning process within introductory level coach education courses.

Coach education courses have been characterised as formal learning situations, taking place through an organisation, hierarchical in structure[17] and mediated, where the learner does not select the content taught, instead others' (e.g., Sport Governing Bodies, curriculum designers, coach developers) 'control' the content, delivery and learning activities.[11] In contrast, coaches frequently report engaging in and a desire for informal and unmediated learning situations such as interactions with others, observations and practical coaching opportunities.[4,7,12,13,15,16,18] This research, however, has typically sampled more experienced coaches with much less known about the learning situations desired and engaged in by new or less experienced coaches.

Furthermore, coach education courses typically involve mediated learning situations, but they may also involve informal and unmediated or internal learning situations such as discussions amongst coaches during breaks.[11] It can also be difficult to know where one learning situation ends and another begins.[11] Therefore, separating the types of learning situations in research limits our understanding of the 'interconnected modes of a complex learning process'[5] (p. 361). Little is known, however, about the opportunities for different learning situations within coach education courses, the extent to which coach developers deliberately seek to facilitate them and the impact on coaches' approaches to learning.

As those responsible for coach education course delivery coach developers are vital for coaches' learning and development, they can influence the quality of coaching[1,20–24] and can affect the value coaches' attach to learning opportunities.[7] However, research examining the practices and perspectives of coach developers in this context is relatively limited. Dohme et al.[25] and Ciampolini, et al.[20] found that coach developers deliberately shaped the psycho-social environment of their courses so that coaches felt 'safe' to explore and challenge themselves. They also found that coach developers supported coaches to adapt course content so that it was meaningful for them, their athletes and their context. Furthermore, Ciampolini et al.[20] and Culver et al.[1] found that coach developers also adapted course material and the time frame available for tasks based on their perception of the coaches' needs. These actions suggest the coach developers delivering these coach education courses may be attempting to facilitate a deep approach to learning[26] where coaches make and work with meaning and engage in transformative learning. However, the extent to which this is a deliberate intention or merely incidental has not been explicitly examined.

Tensions and inconsistencies in approaches to learning within coach education have also been identified. For example, Paquette et al.[24] suggested that activities such as lecturing were more instructor-led and therefore not consistent with the overall learner-centred approach of the coach education programme in their study. Furthermore, the coach developers in Culver et al.,[1] felt that, despite the learner-centred approach which underpinned their coach education programme, at times coaches on the courses would have benefited from greater direct input. Therefore, research that examines the actions of coach developers and the intentions behind their practices will provide valuable insight into coach developers' role in the learning process within coach education contexts.

A theoretical framework that has potential to assist in furthering our understanding of learning processes within coach education contexts is that of Moon.[26] Moon[26] suggested that 'learning that will have an impact on practice will probably need to be deep learning. As such the structure of the course and instruction should encourage learners to take a deep approach to learning' (p. 169). Moon's perspective on learning is grounded in a constructivist view of learning, where learning is an active process involving construction of new meaning from both 'the perceptions of new material of learning and relevant prior knowledge and understanding'[26] (p. 64). Furthermore, deep learning 'involves the learner in wanting to learn for meaning, wanting to understand the material of instruction and to relate it to her previous understandings while, at the same time, being willing to change these'[26] (p. 114). However, Moon recognises that not all approaches to learning are deep and she distinguishes between five stages of surface to deep learning which provides a framework to explore approaches to learning in coach education courses. These five stages are: (a) Noticing which involves the learner recognising an event or topic as interesting or important; (b) Making sense then involves thinking about what has been noticed; (c) Making meaning is where the learner starts to question and connect ideas; (d) Working with meaning involves the learner making links with other ideas and also engaging in reflection on their learning; (e) Transformative learning involves the learner formulating new ideas about what they would do in similar situations.

In coach education research, Leduc et al.[19] demonstrated some support for Moon's propositions. They found that coaches' engagement in reflection on the content of two coach education modules prompted deep learning and that some coaches reported changes in their practice. Aside from the Leduc et al. research, little is known about the extent to which coaches engage in, and coach developers knowingly (or unknowingly) facilitate surface or deep approaches to learning. Therefore, further research is needed that examines which approaches to learning are facilitated and how and why they occur. This will advance our understanding of the coach developer's role in the learning processes within coach education courses and may provide direction for future course development and delivery.

To advance our understanding of learning processes within coach education courses and the coach developer's role in this, research is needed that listens to the voices of multiple stakeholders, explores introductory courses with

new or less experienced coaches, examines the different learning situations occurring within courses, explores coach developers' actions and the intentions behind their practices and seeks to understand the approaches to learning that are fostered and engaged in during courses. Therefore, the purpose of this study was to explore the coach developer's role in the learning processes of introductory coach education courses, with a specific focus on the approaches to learning (surface and deep) facilitated by coach developers through the learning opportunities they delivered and the learning situations coaches' engaged in. The insights gained will contribute to our knowledge of the role of the coach developer within coach education courses. How and why different learning situations are shaped and the impact on coaches' surface and deep approaches to learning.

Method

Research paradigm and positionality

Given our philosophical position that coaching and indeed coach development are social and complex[24,27] and our interest in understanding coaches' and coach developers' lived experiences of coach education courses the project was located within an interpretivist paradigm that adopts a relativist ontology and subjectivist epistemology. Through this perspective we recognise that different equally valid versions of reality exist, and we assign meaning and interpretations which are shaped by our own values, experiences and backgrounds (e.g., as coach developers, researchers, middle class and white).[28] As such we sought to explore multiple perspectives (e.g., coaches, coach developers) of the courses without privileging one source of data more than another. Not only exploring where there was agreement but also differing interpretations of experiences with the courses. In addition to backgrounds in academic research exploring coaching and coach development, all authors are coach developers who deliver coach education courses for sport National Governing Bodies (NGBs). CR is also responsible for the management of coach education programmes in a NGB, and JA and SM also deliver coach education in Higher Education. This background provided us with insights and understanding of the 'work' of coach developers including within introductory courses. It also reinforced our desire for detailed exploration of coach developers' practices and coaches' experiences achieved through employing multiple methods of data collection. However, we were mindful that we brought with us ideas about how we perceive coach development and were mindful to remain open to difference and novel insights. Furthermore, we recognise that the findings presented are our interpretations and therefore we seek to provide sufficient detail to allow readers to also make their own interpretations of the data.

Participant selection and recruitment

Following ethical approval by the authors' institutions, telephone calls were made to the Coach Education Managers of three Sport NGB in Scotland (basketball, paddlesport, judo). The aims of the study were explained, and details confirmed through a follow-up email. Three suitable courses which were the entry point to each sport's coach education pathway were identified. Each course was delivered over two days (16 hours per course) and comprised a mix of 'classroom-based' and practical activity – although the majority of activity took place in the gymnasium (basketball), on or near the water (paddlesports), and in the dojo (judo).

Contact was made with the course coach developers who were deployed by the NGB (two per course). They were informed about the aims and commitment required for this study and invited to participate. All coach developers ($N = 6$) agreed to participate in the study. The coach developers' experience of coach education delivery ranged between 2 and 35 years ($M = 14.17$ years) and they had been participants in their respective sports between 25 and 51 years. At the beginning of each course, the study was explained to the coaches, and they were invited to participate in the focus groups. All coaches ($N = 18$) agreed to participate in the study. Their practical coaching experience varied ($M = 1.67$ years, range 0–9 years). In keeping with ethical procedures, participants' identities were protected through the use of a code, for example, CDF1basketball and CM1judo, which represents their role (coach developer – CD; coach – C, gender (female – F; male – M)), number assigned and sport.

Data collection

To provide an in-depth exploration of the role of the coach developer in the process of learning in introductory coach education courses, data were collected from multiple sources (observation, interview, focus group) and from three perspectives (coach, coach developer, observer).[29]

Observation of courses processes and practices (observer's perspective). Non-participant naturalistic observation[30,31] was employed to examine how coach developers shaped and coaches engaged with the learning activity in the coach education settings. CR observed the delivery of each course and recorded field notes. There are various strategies to structure observations, however, the process generally progressively narrows as the researcher gains understanding of the context and attention is directed to deeper elements.[31] As such observations began with descriptive observations of the structure and detail of the activities and learning opportunities engaged in by participants during the courses. Observations were then focused on the strategies and activities coach developers used to

direct, support and facilitate coaches' approach to learning and coaches' actions and reactions. Events were documented to produce a narrative of the courses which provided insights into what participants did which could be compared with what they said they did (interviews/focus groups).[31] The field notes also provided prompts for interviews and focus groups to add depth to discussion of what happened and why.[31]

Participants' interpretations of course activities (coach developers' and coaches' perspectives). Semi-structured interviews with coach developers and focus-group interviews with coaches were employed to enable in-depth exploration of participants' perspectives on practices and processes within the courses whilst still providing flexibility to discuss topics that emerged during the discussion and allowing participants to discuss topics important to them.[32] Furthermore, the use of focus-group interviews allowed coaches to share and discuss their experiences of the course and allowed exploration of potentially different experiences of the same course.[32] CR conducted the interviews and focus-group interviews. Individual interviews with coach developers were conducted after the course (within a week of course completion) either face to face or by telephone lasting between 45 and 60 minutes. Coaches participated in one of five focus-group interviews (3–6 participants per focus group) which took place in person, at the course location, at the conclusion of each course, and lasted between 20 and 30 minutes. They both followed a semi-structured format beginning with questions about the participants' background which encouraged them to talk openly.[30] This was followed by exploration of perceptions of approaches to learning, strategies employed and impact on coaches. The use of follow-up curiosity-driven and/or clarification questions enabled further detail to be gathered and ensured clear descriptions or examples were produced and allowed for confirmation of the researcher's understanding of what was being said.[32] Interviews and focus-group interviews were recorded and transcribed.

Data analysis and rigour

Data analysis and interpretation seek to make sense of the data collected drawing out significant meaningful patterns revealed in the data.[30] In naturalistic inquiry, data collection and analysis are closely tied.[33] Whilst data analysis often takes place away from and after the visit to the research setting, it also begins when the researcher arrives at the research setting and observations and interviews lead to tentative themes developing.[33] In our study, this came about through researcher reflections and discussions after each day of the courses about: What had been observed? What had been learned about the structure and activities in the courses? How might the next data collection episode for that course be focused to clarify, extend or shift emerging ideas? Resulting preliminary categorisation of data were noted in the margins of the field notes.

Analysis of the field notes, preliminary categories, interview and focus group transcripts followed Braun, et al.[34] thematic analysis processes of familiarisation, coding, theme development, refinement and naming. To focus this analysis and our interpretation of the data, a sensitising approach was used.[30] We drew on sensitising concepts related to learning situations, approaches to learning and Moon's[26] surface to deeper learning 'stages' which provided directions for our exploration of the data.[30] We familiarised ourselves with the data through multiple readings and discussions amongst researchers and developed initial codes.[34] We explored observation data for patterns in structure, activities, processes and interactions. For example, using learning situations as a sensitising concept we explored the fieldnote narratives for evidence of activities that suggested opportunities for mediated, unmediated or internal learning situations (e.g., use of demonstrations – a mediated learning situation). We explored interview and focus group transcripts for patterns in intentions, responses to interactions and activities and what participants were intending to implement in their future practice. For example, again with a focus on learning situations, we explored the coaches' descriptions of how they engaged in the different activities and what this meant for their learning about coaching practice. We compared these with the coach developers' explanations for the activities they employed and their intentions for learning. In developing and refining themes, we attended to comparisons of patterns across people, processes and outcomes.[30,34] For example, the analysis of the multiple perspectives on learning situations such as the use of demonstrations (on the surface a mediated learning situation) led to development of the sub-theme 'demonstrating what good looks like is useful'. The intentions and prompts of the coach developers minimised coaches adopting a surface approach to learning (i.e., reproduction) and instead they adopted a deeper approach to learning where they were challenged to (re)consider their coaching practices (internal learning situation).

Results

Through our analysis, we developed three themes that explore the process of learning in introductory coach education courses. These themes were: structure supports the learning process; NGB resources are just a starting point for learning; a deep approach to learning can be facilitated. Each theme is presented below along with prominent sub-themes and illustrative quotes and descriptions.

Structure supports the learning process

This theme illustrated how resources from the NGB which included a programme and desired environment for learning were used by coach developers to provide structure that supported the learning process. Coach developers were observed following a programme for learning and

attempting to create a supportive learning environment. This were captured in three main sub-themes: creating a safe space for learning; demonstrating 'what good can look like' is useful; and connecting ideas through micro coaching.

Creating a 'safe space' for learning. Several coaches reported feeling apprehensive about attending their course due to a lack of sport knowledge, concerns over whether they were currently 'doing things right' or as CM4basketball commented: 'one of the apprehensions I had is that I thought it was going to be full of young basketball players'. Aware that some coaches may be feeling this way, the coach developers were observed employing a range of activities to encourage interaction between themselves and coaches and amongst coaches. These included speaking to each coach as they arrived and during breaks, using 'round the room' introductions, utilising interactive quizzes, games, collaborative tasks and facilitating small group discussions and peer feedback. Through these interactive activities, the coach developers actively sought to foster relationships with coaches, learn about them and facilitate coaches to get to know each other and collaborate. In doing so, they aimed to 'put them [coaches] at ease' (CDF1basketball) and create an 'environment people feel comfortable in, an environment where people feel their learning is prioritised' (CDM2judo).

Through this approach, the coach developers sought to create a 'safe space' for learning where they could 'support and challenge' coaches (CDM2basketball). CDF1basketball explained that they aimed to provide 'lots of opportunities to practice in a safe environment where they [coaches] are not going to be judged. It's like it's a practice and you can play around with it'. Coaches noticed and appreciated these efforts. CM10basketball commented that 'it was a really positive environment to work in... all very supportive, [it] really assisted me... people were open [to ideas and feedback]'. CM1paddlesport said: 'they [coach developers] were very supportive and they fostered, from the start...a great team ethos and learning from each other and learning through experience'. CF2paddlesport added: 'having the space to fail... you didn't have to perform 100% of the time and I think they managed to create that space really well'. The deliberate efforts of coach developers observed suggest an approach to learning that was supportive of the individual but also appreciative that the learning process may be challenging and uncomfortable. Coaches' appreciation of the environment and their openness to learning suggested the foundations for deep learning were laid through the learning climate created by the coach developers.

Demonstrating 'what good can look like' is useful. All the coach developers were observed providing demonstrations of coaching. This was generally utilised to provide good practice models of coaching, assist coaches to recognise

aspects of coaching practice (noticing and sense making) and consider possibilities for their practice (making meaning and working with meaning). CDF1basketball explained, 'it's really important that people can see what good coaching looks like... [it's] not just managing a session'. CDM1paddlesport also commented, 'so you need to role model these things so folks can get a picture of what things look like'. Coaches recognised and valued the opportunity to see coaching 'in action'. CM6basketball commented, 'they [coach developers] had good demonstrations. The first day they ran us through sessions which they took, so they role modelled coaching some of the ways or things that you could be doing'.

This 'role model coaching' strategy could lead coaches to simply remember and reproduce what they observed others doing, a surface approach to learning. However, this was not the intention of the coach developers. They were observed deliberately providing input that could prompt coaches to (re)consider and even challenge their existing views and experiences of coaching. This was recognised by the coaches: 'they [coach developers] pushed you out of your comfort zone... challenged us' (CF7judo). Therefore, they were attempting to facilitate deep learning where coaches worked to make meaning and work with meaning. CDF1basketball commented:

> You're almost challenging... the traditional view of coaching and 'it doesn't have to be like that', I think it's recognising that people come with that view of 'this is how you coach' and we want to try and give them a different experience.

Connecting ideas through micro coaching. In all courses, the coach developers were observed employing structured opportunities for coaches to 'have a go' at coaching (micro coaching). These episodes were presented as an opportunity for coaches to try out their coaching, learn from each other and be supported and extended through group and individual reflection and feedback. CDM1judo explained, 'coaching [practice] is really important and if the support is put around that for opportunities to reflect on what they've done and to chat that through with people, [it] is useful'. Coaches valued these opportunities. CM5basketball commented, 'it's good to come and see people do basketball and the way they coach will help me with the kids'. CM1paddlesport explained the benefits to the group:

> ...from the coaching that we were doing, ... reflecting on each other's... it was really useful to do that... the little lessons we performed got better and better because we weren't making the same mistakes. If you did it first, then the feedback that you got, others took that on board and built that into their own lesson, so they [the micro coaching sessions] were getting progressively better and better as we went.

Through micro coaching opportunities and the review process coaches were encouraged to consider what they had noticed compared with their current practice, connect 'new' material with their existing knowledge, and whether and/or how they might adapt their practice for their own context. As such they were making and working with meaning. Allocating time for individuals to reflect and engage in group discussions supported coaches to adopt this deep approach to learning. CM10basketball explained:

> We were doing practices and then we had to relate it [a coaching concept] to them, our own practices, to use our own knowledge and your own coaching style… we were given time to work in pairs and then we would deliver. That was all good and it got us thinking.

National Governing Body resources are just a starting point for learning

Rather than constrain learning to the reproduction of 'how to coach' in a prescribed manner, the coach developers used the tutor resources as a starting point for learning. There were three sub-themes that captured how this occurred: direction is useful; adapting for learners' needs; facilitated exploration.

Direction is useful. Coach developers recognised their role in providing direction and input to support the coaches' learning. CDF2paddlesport explained 'that's what I want to do, is give those bits of gold dust so people say, "oh yeah, I see things in a different way now".' CDF1basketball commented '…it's about putting the learning into context and trying to maximise our time… we are trying to show them an activity they can use within their session and unpacking it a wee bit to introduce some of the theory'. CDF2paddlesport also mentioned she focused on 'giving plenty of choice to coaches about their participation… [but also] juggling challenge and support to meet the group needs'. Input from the coach developers combined with freedom to explore was appreciated by the coaches: 'she [coach developer] just showed us, showing us how to do it which was really good' (CM2paddlesport); 'there were lots of tasks given out to us, to come up with an activity… They [coach developers] let you go off and try' (CF1paddlesport).

Adapting for learners' needs. Through their interactions with the coaches, the coach developers learnt about the coaches' coaching contexts and experience. This enabled them to adapt the course content to make tasks meaningful for the coaches: 'helps us pitch the course' (CDF1basketball). In judo, a quiz used at the beginning of the course helped CDM1judo 'to get to know the people…, what their experiences are and how long they have been involved in judo… it helps me have better quality conversations'. The adaptation

was recognised by the coaches. CM4basketball commented that 'people [coaches] all have different backgrounds… I think they [coach developers] recognised the variations that they had within the course, and they tried to tailor it'. CM6judo commented: 'They assessed the needs of the group and made it more challenging'.

During each course the coach developers also monitored learning. For example, CDM1paddlesport was observed asking, 'what did we get from today?' Not only, did this stimulate coaches' reflection (discussed later), but it also provided the coach developers with feedback about how the coaches' learning was progressing. This enabled the coach developers to identify whether further adaptations were needed: 'how best to use the time, maybe build in half an hour to recap and go over some stuff' (CDF1basketball).

Facilitated exploration. Coach developers were observed employing a range of tasks which, although often 'set' or started by the coach developer, provided coaches with the opportunity and encouragement to explore topics to develop their sport knowledge and coaching knowledge and skills, share and discuss their experiences with other coaches and/or (re)consider their own perspective. During the judo course, coach developers were observed organising a small group task where coaches competed in a time-limited relay race. Individuals' ran to a flipchart, wrote an example of a judo 'game' they had experienced or had knowledge of, before handing over to the next person in their group. These games were then discussed in more detail within the group, before the group were given time to create a 'new game' which was then used in a micro coaching episode. CM1judo commented that an opportunity to learn for themselves came from the 'sharing games and discussing them with each other and creating a new one', suggesting he adopted a deep approach to learning. A similar process was observed during the basketball course: CM9basketball commented, 'it's been years since I've done that [game] but I can remember now how much fun it is and it's related as well, which means I would probably use it in the sessions, now it's helped build my knowledge'.

A deep approach to learning can be facilitated

There were two sub-themes that captured the main strategies coach developers used to encourage coaches to think more deeply about coaching: some questions encourage a deep approach to learning; and facilitated reflection is useful.

Some questions encourage a deep approach to learning. All coach developers were observed using questions. How the questions were phrased, and their purpose varied which influenced the extent to which they prompted surface or deep learning. In some instances, questions prompted little or only surface learning. These were typically questions that were closed or a specific answer was anticipated,

such as when a coach developer was checking for coaches' understanding or prompting noticing: 'Do you all understand?' (CDM1paddlesport); 'What is this game called?' (CDF1basketball); and 'What were some of the things she did?' (CDM2judo).

In other instances, questions prompted coaches to (re) consider previous experiences and existing knowledge. During a task, CDM2basketball asked coaches to think about 'How do you include everyone?' In an exchange between CDF1basketball and CM5basketball, the coach developer asked, 'what is differentiation?' The coach responded, 'adaptation and change'. This was followed by the coach developer saying, 'can you give me an example?' which prompted the coach to connect the idea of differentiation to his current practice. This exchange continued with the coach developer asking, 'how would you adapt this practice?' prompting the coach to suggest that 'I could lower the hoop height for the young ones, or I could make the space bigger or smaller dependent on how they were getting on'. CDM2basketball comments on his use of questioning suggested some recognition of their use to prompt a deep approach to learning: 'delving deeper into the why, using open questions, … make them think about how they are coaching and why they're doing certain things'.

Questions were also used to prompt group discussion and sharing of ideas to construct 'new' knowledge which could facilitate coaches to work with meaning. During observation of a task focussing on common issues paddlers experience, CDM1paddlesport was heard asking 'what type of things happen?' Then in small groups the coaches paddled across a stretch of water and back discussing their thoughts and experiences before sharing ideas with the whole group. In the focus group interview, CM3paddlesport commented about this task saying, 'he [coach developer] very much let us figure it out and come up with a few examples'. In basketball, CDF1basketball commented that if coaches are finding things easy, she uses 'questioning to challenge them a bit more… For example, if you were coaching an U16 team, what would you do for this? And what would the reason for it be?' Therefore, the coach developers' use of questioning prompted both surface and deeper approaches to learning. However, coach developers were clear in their intention that some questions were used to stimulate coaches to (re)consider assumptions and create alternatives.

Facilitated reflection is useful. In all three courses, a similar process to stimulate coaches' reflection was observed. This typically involved engagement in a task, role model coaching or coach micro coaching, followed by coach developer-prompted reflection and peer feedback. In this group review process, coach developers would probe, clarify or add, if they felt it was needed, 'I will also give specific feedback around different sections, …. particularly, if it's different from the reflections' (CDF1basketball). The process is illustrated in this example following a coach-led micro coaching session in basketball. Coach self-reflection was the first step. This was prompted by CDM1basketball asking the coach, 'What was the purpose of the session? What positives were there?' The coach developer then asked the group, 'what was good about it [coaching]?' CDM2basketball then asked the coach, 'If you did it again, anything you'd change?' CDF1basketball then asked the group, 'What would your changes be?' The coach and coach developer were then observed sitting together discussing the points made during the review process and creating an action plan for the coach's subsequent practice. The coaches commented on the benefit of the group review process, '[it] was great and everybody was really helpful' (CM7basketball). CF6judo valued the coaching opportunities 'because of the review process and feedback to each other'. The coach developers were clear that the purpose of prompting and providing time for reflection and feedback was to raise coaches' awareness of coaching skills and 'make them think about how they are coaching and why they're doing certain things'. (CDM2basketball).

The reflection process helped coaches to notice and make sense of their coaching as CM1judo reflected: 'coaching is so complex there's so much to think about'. Furthermore, through feedback from peers and the questioning of coach developers, the coaches were encouraged to think more deeply about their coaching. A prompt such as 'What would they do differently' and the ensuing discussion amongst coaches prompted working with meaning, linking what they have experienced on the course with their own coaching and context. CM1paddlesport commented, 'reflecting on each other's journeying… it was really useful to do that'. Whether developing session plans or an action plan, coaches and coach developers were observed working together on these tasks which encouraged formulation of new ideas to advance their coaching practice, a characteristic of transformative learning. CM5basketball commented, 'you're doing all the session plans [and] it's not so much sitting here by yourself… you bounce ideas off each other… it was good to hear other people's ways of how they would deliver'.

Discussion

The purpose of this study was to further our understanding of the role of the coach developer in the learning process within introductory level coach education courses. To this end, we explored the practices of coach developers and coaches' perceptions of the activities they engaged with. Our findings contribute in several ways. They: (a) demonstrate the usefulness of coach education courses for coaches; (b) suggest coach education courses are composed of varied learning situations engineered by coach developers; (c) support a view that coach developers' approach to delivering courses may be better captured as *learning-*

centred rather than *learner*-centred; (d) suggest deep learning is possible in coach education courses and coach developers attempt to foster it.

Coach education courses continue to be part of many coaches' learning and development journeys.[1–3] However, they have also been subject to much criticism (e.g., [4,8,10,24]). In contrast, our findings support the small number of studies which have demonstrated that coach education courses, particularly introductory courses, are valued and considered useful by coaches, especially less experienced coaches.[7,14–16] This finding is important given that large-scale coach education courses provide a relatively efficient way to engage large numbers of coaches in learning and development.[14] Furthermore, no other large-scale process has been offered as an alternative. However, our findings also suggest that the usefulness of coach education courses is influenced by how they are delivered. Therefore, how coach developers work is critical to enhancing coach education provision.

The courses in our study could be characterised as formal[6] and mediated[26] forms of learning.[11,17] Our findings that coach developers were guided by resources provided by the NGB which provided structure to the courses, that they also provided directions for tasks, and gave feedback supports this formal and mediated learning categorisation.[5,6] However, to stop at such a broad categorisation of coach education courses would have limited our understanding of the process of learning in these introductory courses. We also found that coach developers engineered time and space for unmediated and internal learning situations such as discussions amongst coaches, observations of others' coaching, practical coaching opportunities and group and individual reflection. Supporting the view that learning situations are not isolated, and that although coach education courses may be viewed as mediated learning situations other forms of learning situations can occur within them.[5,6,9,11] Therefore, consideration of the range of learning situations and how they are facilitated is useful to advance our understanding of the process of learning in coach education courses.

As learning, particularly deep learning, involves questioning current ideas, it has the potential to be uncomfortable.[26] Furthermore, courses led by 'experts' (i.e., coach developers) and involving unknown others (i.e., coaches) where coaches are being asked to (re)consider their knowledge and beliefs about coaching could be perceived by coaches as threatening. Our findings suggest at least some coaches felt this way, reporting apprehensions before even arriving at the course and also during the course. Going some way to ameliorate these apprehensions, we found that, similar to Dohme et al.[25] and Ciampolini, et al.,[20] the environments within the courses were perceived as non-judgemental and supportive, where coaches felt comfortable to engage openly in learning, and even 'safe to fail'. The coaches' perceptions support the constructivist

view of learning that it is the learner's perception of the environment that affects learning.[26] However, we also found that coach developers made deliberate efforts to create an environment conducive to learning, aware that features of the learning climate could impact the coaches' learning. Therefore, there was alignment between the coaches' and coach developers' perspectives on the contribution of the learning climate for meaningful learning.

In addition, similar to previous findings (e.g., [1,20,25]), the coach developers in our study sought to adapt the course content to make it more meaningful for coaches. Strategies such as getting to know a little about the coaches' coaching contexts and experiences, asking questions about aspects of the course content and prompting coaches' reflection were all employed to help the coach developers understand the coaches, monitor learning and enable adaptations for the group and individuals. In this sense, the coach developers' approach could be viewed as learner-centred.[26,24] Previous research has suggested that such an approach may be difficult to deliver considering the variety of coaches on a course, their biographies and approaches to learning, and may result in questions and even challenges of coach developers.[8–11] In contrast, however, our findings suggest that the coaches recognised the diverse nature of the group, the challenge this presented to the coach developers and appreciated the coach developers' efforts to tailor the course for them.

We also found, however, that coach developers led activities and provided direct input where they felt coaches needed it. Furthermore, coaches appreciated the coach developers' input and direction. In previous research, these types of activities have been characterised as instructor-centred and viewed as inconsistent with a learner-centred approach[1,20] which suggests a narrow conceptualisation or even misconception of learner-centredness that limits and confuses our understanding of how coach developers facilitate learning processes. The apparent inconsistency in findings can be reconciled by focusing on *learning* (i.e., learn*ing*-centred approach)[35] rather than whether learning opportunities are *instructor*- or *learner-centred* (i.e., who is 'in control' or 'at the centre'). By conceptualising the coach developers' strategies as *learning*- rather than *learner-centred*, our findings are not viewed as antithetical or in conflict with their overall approach to facilitating learning. Interestingly, this view has parallels with conceptualisations of learner-centred teaching (LCT) (e.g.,[36]) which consider multiple LCT dimensions of which who is in control (role of instructor) is but one. It also aligns with Moon's[26] conceptualisation of learner-centredness in which 'the instructor is aware of and responsive to the state of *learning* [emphasis added]' (p. 103) and 'does not represent a position that instruction is based solely on the initiatives of learners and that information-giving is unacceptable' (p. 103). Therefore, clarity is needed in how learner- or learning-centred approaches are being

conceptualised and operationalised so that research advances rather than confuses our understanding of the processes that contribute to learning within coach education courses.

Prioritising learning, supported a focus on the quality of learning within the introductory courses. In particular, we explored the extent to which coach developers and coaches adopted surface and deep approaches to learning. The course programme for learning and the coach developers' actions provided structure and direction about what to focus on (e.g., demonstrating what good looks like). These actions were designed to facilitate noticing and sense making which are considered surface stages of learning.[26] However, they were important for making learning meaningful. For example, starting with the coaches' experiences (e.g., with warm-ups or judo 'games') helped coaches to notice what they 'know' and make connections with their experiences.

We also found that there were frequent deliberate attempts to foster a deep approach to learning. Coaches responded to open questions, had opportunities to share and discuss their thoughts, plan and deliver micro coaching episodes, create 'new games', and had time for individual and group reflection. To respond to these tasks, coaches were representing their learning. A process which is also a form of learning and can deepen learning when coaches need to process and reorganise several ideas in order to formulate a response.[26] Other strategies employed that can deepen learning include challenging learners and monitoring the progress of learning to enable adaptation/guidance.[26] Through these activities coaches were often connecting previous knowledge with new knowledge (e.g., old game with a new purpose) and given space and encouragement to explore how they would use, adapt or develop content for their own context. Therefore, coaches were encouraged to question and connect ideas about coaching (make meaning), analyse and evaluate their previous experiences in light of new ideas (from the course content, coach developers or other coaches) (working with meaning) and transform their experiences to formulate new ideas for future similar situations (transformative learning).[26] This finding suggests that rather than merely remembering and reproducing prescribed coaching practices, coaches in these courses were encouraged to adopt a deep approach to learning. Coaches' openness to ideas and feedback, appreciation of opportunities to practice and develop their practice and engagement with reflection tasks suggests they adopted a deep approach to learning.

Limitations and future directions

The focus on introductory coach education courses extends our knowledge about this level of course and how it is delivered and interpreted by coach developers and coaches. However, only three courses (and sports) were included; therefore, future research should continue to explore how entry-level courses from other NGBs are designed, how they are delivered by coach developers and the influence on coaches. The use of multiple methods and sources to gather evidence provided an in-depth examination minimising common method bias and enabling corroboration of evidence. Future research should continue to utilise multiple methods and seek to explore multiple perspectives to enable appreciation of alternative versions of reality which are equally valid and provide valuable insights into the meaning and interpretation of coach education courses and coach developers' and coaches' approaches to learning. Our research was bounded by the duration of the courses. However, just as a small number of studies have done,[8,9] future research could also include coaches' understanding and practice of coaching before and/or after a course. Thereby enabling exploration of the longer-term impact of coach education courses. Researchers might also explore coach developers' biographies, perhaps of those identified as fostering deep, transformative learning, to understand how their approach has developed.

Conclusion

Coach education programmes continue to be an integral part of most coaches' learning and development journeys. Despite criticisms of this large-scale approach, our research findings suggest they are useful to coaches and can facilitate deep learning. Our findings suggest that a *learning*-centred conceptualisation of the process of learning in coach education course delivery encourages a shift from questions of who is 'in control' to the approaches and stages of learning that are being encouraged and engaged with. With this conceptualisation, direction and input from the course programme and coach developers are seen as integral to facilitating learning. Furthermore, when combined with strategies that actively engage coaches in the learning process, which is fundamental to a constructivist view of learning, a deep approach to learning can be facilitated. The quality of courses and resultant learning is, however, largely dependent on the expertise of coach developers in these contexts. Although our findings suggest coach developers were able to foster deep approaches to learning, research suggests this may not be the case across all coach education (e.g., [4,7,11–13]). Hence, there is need for ongoing development programmes for coach developers.

Author contributions

All authors have read and agreed to this version of the manuscript. All authors conceptualised the study and methodology. The second author collected the data and conducted preliminary analyses. The first author wrote the manuscript drafts. All authors were contributed to the analysis and writing of the manuscript.

Data availability statement

Declaration of conflicting interests

Funding

Institutional review board statement

Informed consent statement

ORCID iD

Justine B. Allen (iD) https://orcid.org/0000-0001-9918-9330

References

1. Culver DM, Werthner P and Trudel P. Coach developers as 'facilitators of learning' in a large-scale coach education programme: one actor in a complex system. *Int Sport Coach J* 2019; 6: 296–306.
2. Rynne SB, Mallett C and Tinning R. High performance sport coaching: institutes of sport as sites for learning. *Int J Sports Sci Coach* 2006; 1: 223–234.
3. Taylor WG and Garratt D. Coaching and professionalization. In: P Potrac, W Gilbert and J Denison (eds) *Routledge handbook of sports coaching*. London: Routledge, 2013, pp.27–39.
4. Chesterfield G, Potrac P and Jones R. Studentship' and 'impression management' in an advanced soccer coach education award. *Sport Educ Soc* 2010; 15: 299–314.
5. Cushion C and Nelson L. Coach education and learning: developing the field. In: P Potrac, W Gilbert and J Denison (eds) *Routledge handbook of sports coaching*. London: Routledge, 2013, pp.359–374.
6. Nelson LJ, Cushion CJ and Potrac P. Formal, nonformal and informal coach learning: a holistic conceptualisation. *Int J Sports Sci Coach* 2006; 1: 247–259.
7. Piggott D. Coaches' experiences of formal coach education: a critical sociological investigation. *Sport Educ Soc* 2012; 17: 535–554.
8. Stodter A and Cushion CJ. Coaches' learning and education: a case study of cultures in conflict. *Sports Coach Rev* 2014; 3: 63–79.
9. Stodter A and Cushion CJ. What works in coach learning, how, and for whom? A grounded process of soccer coaches' professional learning. *Qual Res Sport Exerc Health* 2017; 9: 321–338.
10. Stodter A and Cushion CJ. Evidencing the impact of coaches' learning: changes in coaching knowledge and practice over time. *J Sports Sci* 2019; 37: 2086–2093.
11. Trudel P, Culver D and Werthner P. Looking at coach development from the coach-learner's perspective: considerations for coach administrators. In: P Potrac, W Gilbert and J Denison (eds) *Routledge handbook of sports coaching*. London: Routledge, 2013, pp.375–387.
12. Ciampolini V, Milistetd M, Rynne SB, et al. Research review on coaches' perceptions regarding the teaching strategies experienced in coach education programs. *Int J Sports Sci Coach* 2019; 14: 216–228.
13. Jones R and Allison W. Candidates' experiences of elite coach education: a longitudinal study ('tracking the journey'). *Eur J Hum Mov* 2014; 33: 110–122.
14. McCullick BA, Belcher D and Schempp PG. What works in coaching and sport instructor certification programs? The participants' view. *Phys Educ Sport Pedagogy* 2005; 10: 121–137.
15. Stoszkowski J and Collins D. Sources, topics and use of knowledge by coaches. *J Sports Sci* 2016; 34: 794–802.
16. Winchester G, Culver D and Camiré M. Understanding how Ontario high school teacher-coaches learn to coach. *Phys Educ Sport Pedagogy* 2013; 18: 412–426.
17. Mallett CJ, Trudel P, Lyle J, et al. Formal vs. informal coach education. *Int J Sports Sci Coach* 2009; 4: 325–364.
18. Werthner P and Trudel P. Investigating the idiosyncratic learning paths of elite Canadian coaches. *Int J Sports Sci Coach* 2009; 4: 433–449.
19. Leduc M, Culver DM and Werthner P. Following a coach education programme: coaches' perceptions and reported actions. *Sports Coach Rev* 2012; 1: 135–150.
20. Ciampolini V, Camiré M, Salles W, et al. Researcher, coach developer, and coaches' perspectives on learner-centered teaching in a rugby coach education program. *Int Sport Coach J* 2022; 9: 20–29.
21. Cushion CJ, Griffiths M and Armour K. Professional coach educators in-situ: a social analysis of practice. *Sport Educ Soc* 2019; 24: 533–546.
22. Jones T, Allen J and Macdonald S. The 'face' of coach development: a systematic review of the role of the coach developer. *Int Sport Coach J* 2024; 11: 1–19.
23. North J. Using 'coach developers' to facilitate coach learning and development: qualitative evidence from the UK. *Int J Sports Sci Coach* 2010; 5: 239–256.
24. Paquette K, Trudel P, Duarte T, et al. Participating in a learner-centered coach education program: composite vignettes of coaches' and coach educators' experiences. *Int Sport Coach J* 2019; 6: 274–284.
25. Dohme LC, Rankin-Wright AJ and Lara-Bercial S. Beyond knowledge transfer: the role of coach developers as motivators for lifelong learning. *Int Sport Coach J* 2019; 6: 317–328.
26. Moon J. *Short courses and workshops: Improving the impact of learning and professional development*. London: Kogan Page, 2001.
27. Jones RL, Bailey J and Thompson A. Ambiguity, noticing and orchestration: further thoughts on managing the complex coaching context. In: P Potrac, W Gilbert and J Denison (eds) *Routledge handbook of sports coaching*. London: Routledge, 2013, pp.271–283.
28. Poucher ZA, Tamminen KA, Caron JG, et al. Thinking through and designing qualitative research studies: a focused mapping

review of 30 years of qualitative research in sport psychology. *Int Rev Sport Exerc Psychol* 2020; 13: 163–186.

29. Smith B. Narrative inquiry: ongoing conversations and questions for sport and exercise psychology research. *Int Rev Sport Exerc Psychol* 2010; 3: 87–107.

30. Patton MQ. *Qualitative research and evaluation methods*. 3rd ed. Thousand Oaks: Sage, 2002.

31. Thorpe H and Olive R. Conducting observations in sport and exercise settings. In: B Smith and A Sparkes (eds) *Routledge handbook of qualitative research in sport and exercise*. London: Routledge, 2016, pp.124–138.

32. Smith B and Sparkes AC. Interviews: qualitative interviewing in sport and exercise sciences. In: B Smith and A Sparkes (eds) *Routledge handbook of qualitative research in sport and exercise*. London: Routledge, 2016, pp.103–123.

33. Erlandson DA, Harris EL, Skipper BL, et al. *Doing naturalistic inquiry*. Newbury Park, CA: Sage, 1993.

34. Braun V, Clarke V and Weate P. Using thematic analysis in sport and exercise research. In: B Smith and A Sparkes (eds) *Routledge handbook of qualitative research in sport and exercise*. London: Routledge, 2019, pp.191–205.

35. Cooper D and Allen JB. The coaching process of the expert coach: a coach led approach. *Sports Coach Rev* 2018; 7: 142–170.

36. Weimer M. *Learner-centered teaching: Five key changes to practice*. San Francisco, CA: Jossey-Bass, 2002.