**Understanding the impact of an online Level 1 coach education award on dodgeball coaches’ learning and practice**

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Improved internet access and technological advancements has significantly influenced coaches’ learning opportunities, with numerous online coach education courses now available. Despite this, we know little about coaches’ experiences of such provision and how it shapes coach learning. Consequently, the aim of this research is to understand the impact of an online Level 1 coach education award on dodgeball coaches’ learning and practice. Data was collected via an online qualitative survey involving 57 dodgeball coaches who had completed the award, alongside follow-up virtual semi-structured interviews with eight coaches. Following a reflexive thematic analysis process drawing upon the theoretical framework of Jennifer Moon, three themes were generated: (1) A surface or deep approach? Understanding dodgeball coaches’ experiences of the Level 1 award; (2) Coaches’ preferences and learning styles: A barrier for online coach education; and (3) Enhancing the impact of online coach education: Assessment and post-award support. Findings indicate that the award’s impact on learning and practice varied depending upon coaches’ cognitive structures, which influenced their perceptions towards the value of online provision. While coaches’ experiences were generally positive, authentic assessment(s) and mentoring opportunities were proposed to further enhance the award’s impact.

**Keywords**: *coach education, technology enhanced learning, coach development, coaching practice, online course, e-learning*

**Introduction**

Face-to-face coach education courses are frequently positioned as the traditional method of developing sport coaches (Lyle & Cushion, 2017). Yet, these have been heavily criticised due to their failure to enhance coach learning and practice (Van Woezik et al., 2022), while possessing barriers related to time, cost, tediousness, and inaccessibility (Gurgis et al., 2020). However, the growth and expansion of the internet, social media, and additional technological advances has somewhat helped to alleviate these issues, by providing online coach learning opportunities (Stoszkowski et al., 2021). Broadly, online coach education can be defined as any programme which is “delivered and completed by coaches online via video modules and/or audio/visual presentations” (Lefebvre et al., 2016, p. 896). Indeed, the COVID-19 pandemic emphasised the importance of having access to online coach education of some description, although many sports governing bodies (SGBs) identified that while existing systems were in place, these were generally underutilised and undeveloped (Callary et al., 2020; Santos et al., 2021).

 Nevertheless, calls to harness online provision within coach education is not a new phenomenon. Over 15 years ago, Stewart (2006) attempted to highlight the value of online coach education, arguing that “with increased access to technology and the expansion of the web, few excuses remain for coaches to have limited access to coach education” (p. 36). More recently, it has been suggested that technology enhanced learning within coach education may offer diverse and learner-centred approaches to assessment and content delivery, given clear alignment between learners, learning outcomes, and the method of transmission (Cushion & Townsend, 2019). Online coach education has the potential to offer a variety of synchronous and asynchronous learning activities, including video/audio lectures, interactive assessments, video-based reflections, collaborative discussions, and problem-based learning (Driska & Nalepa, 2020; Stoszkowski et al., 2021). Whether pre-recorded or live, it has been argued an online approach to coach education is more flexible, cost-effective, ensures consistency in quality, and allows global audiences to be reached (Driska & Nalepa, 2020; Newman et al., 2020; Stewart, 2006). Furthermore, online provision which enables social interaction is considered particularly valuable for supporting coach learning (Piggott, 2015).

 Despite these apparent advantages, SGBs will need to negotiate a balancing act between the benefits associated with the financial and logistical aspects of online coach education provision, while contemplating what works on a pedagogical level, as course design and structure (e.g., synchronous, asynchronous, designated learning activities, assessment) will not automatically result in learning outcomes being achieved (Cushion & Townsend, 2019; Newman et al., 2020; Santos et al., 2021). Thus, although online coach education has its merits, we are at a stage where it is unclear how to support the integration of technology enhanced learning within coach education, with suggestions for its implementation, but limited evidence of successful outcomes (Cushion & Townsend, 2019). In sum, online programmes to support coach education are increasing, but we know little about the effectiveness and impact of such provision on both coach learning and practice (see Cushion & Townsend, 2019; Griffiths et al., 2022; Trudel et al., 2013).

As Callary et al. (2020) reiterate, there is a need to understand how coaches are experiencing online coach development to identify best practice, as there are relatively few studies which explore coach education programmes that use online educational tools (Stoszkowski & Collins, 2022). Consequently, to address this evident gap in the literature, the aim of this research is to understand the impact of an online Level 1 coach education award on dodgeball coaches’ learning and practice. It is important to recognise that how coaches experience, interpret, and engage with online coach education provision will fluctuate, depending upon their biography which acts as a filter to guide new learning (Stodter & Cushion, 2017; Trudel et al., 2013). Hence, to understand the idiosyncrasies in how dodgeball coaches experience the online Level 1 coach education award, the theoretical framework of Jennifer Moon (2001, 2004) is relevant due to its focus on exploring the impact of short courses (awards) on learning. The following section provides an overview of the key concepts which inform Moon’s (2001, 2004) work and its application to coach education.

**Theoretical framework: Jennifer Moon and learning from short courses**

Jennifer Moon (2001, 2004) adopts a constructivist and generic view of learning, which underpins a framework developed to enhance the impact of learning from short courses, awards, and workshops. While it is beyond the scope of this paper to delve fully into Moon’s extensive theoretical framework, her fundamental concepts related to learning from short courses including *learning context* and *learning situation*, *cognitive structure*, alongside *surface* and *deep approaches* to learning are discussed.

Moon (2001) makes a clear distinction between a learning context and a learning situation (Trudel et al., 2013). For example, Moon (2001) suggests that the learning context refers to “the setting in which learning occurs – the course, the instructor, relevant organisations… the learning situation, is the learner’s perception of the context” (p. 48). In this research, the online Level 1 award in coaching dodgeball is the learning context. However, this could be perceived by learners as a mediated (learning directed by another), unmediated (learning directed by the learner), or internal (learner engages in self-reflection) learning situation, with these perceptions shifting throughout engagement within a learning context (see Trudel et al., 2013; Werthner & Trudel, 2006). Learning situations are filtered by an individual’s cognitive structure, defined as “the network of concepts, emotion, knowledge, experiences and beliefs that guides a person’s functioning at a particular time” (Moon, 2004, p. 231). Specifically, a learner’s cognitive structure guides new learning and what is considered as relevant and important (Moon, 2001). As a central concept, cognitive structures direct new learning and are also changed by new learning (Leduc et al., 2012). This means individuals either assimilate, they process new information by adding to their cognitive structure, or accommodate, as they modify new information and change their cognitive structure (Moon, 2001; Trudel et al., 2013). Ultimately, learning from short courses and awards should involve the change and modification of an individual’s cognitive structure (Leduc et al., 2012; Moon, 2001). Thus, to encapsulate the processes of assimilation and accommodation, Moon (2001) outlines two approaches to learning: surface and deep.

 Surface learning involves assimilation but not accommodation. It is a non-reflective approach where learners might already know taught material and engage in processes of reproduction, attempting to memorise and repeat content which fails to modify their cognitive structure (Leduc et al., 2012; Moon, 2001; Trudel et al., 2013). In contrast, a deep approach to learning should be the aim of short courses and awards (Moon, 2001). This occurs when learners critically reflect upon material and seek meaning by connecting content to their previous knowledge and experiences (Moon, 2001). A deep approach to learning involves considerable engagement with reflective practice, resulting in changes to a learner’s cognitive structure and eventually their practice. However, Trudel et al. (2013) argue that currently “there are no clear indications that online coach education programs help coaches adopt a deep approach to their learning” (p. 382). Thus, providing a further rationale to explore this aspect within the present research.

Since Werthner and Trudel’s (2006) seminal paper, Moon’s (2001, 2004) generic view of learning has been applied extensively within the coach education literature (see Culver et al., 2019; Leduc et al., 2012; Trudel et al., 2013). However, these studies have focused on understanding learning within traditional face-to-face coach education courses, with Moon’s concepts yet to be explicitly applied when exploring the impact of online provision on coaches’ learning and practice, especially within underrepresented sports such as dodgeball. Consequently, in this context applying Moon’s (2001, 2004) framework to interpret the experiences of dodgeball coaches may help contribute towards “an evidence base concerning how technology is currently used in coach learning and the impact of its use, as well as developing guidelines about how it might be integrated to improve and ‘enhance’ coach education and learning” (Cushion & Townsend, 2019, p. 632).

**Dodgeball: A contentious sport?**

Research exploring dodgeball has predominantly originated from North America, with debates surrounding the sport’s inclusion within physical education (PE). Arguments against dodgeball’s inclusion claim the sport promotes violence, is overly competitive, and possesses an increased risk of injury, with little rationale to support the use of human-targets (Manning et al., 2016). More critical accounts question what students learn from playing dodgeball, with it being suggested that participation “habituates the practice of aggression and fails to contribute positively to an ethical education” (Butler et al., 2021, p. 27). Despite these adversaries, counterarguments highlight dodgeball’s potential to develop several fundamental physical and sport-specific skills such as throwing, catching, and balance, with practices being modified to increase inclusivity and participant enjoyment (Barney & Prusak, 2021). In recent years dodgeball has grown in stature and popularity within both school and community settings in the United Kingdom (UK). Recent figures indicate that dodgeball is the second most participated team sport in schools and the fourth most participated community team sport in the UK amongst young people aged 5-16 (British Dodgeball, 2019). In primary schools (ages 5-11) specifically, dodgeball is only second to association football as the most in-demand sport desired by students (British Dodgeball, 2019), while there are currently over 100 adult and junior community clubs, with roughly 5000 players participating in 230 sessions weekly across the UK (British Dodgeball, 2022a). Hence, to cope with dodgeball’s increased participation and popularity across the UK, there is a need to ensure coaches are appropriately educated and supported. Indeed, enhanced coach education and development opportunities for dodgeball coaches may also result in the delivery of more ethical and meaningful practices for participants.

Despite this stance, we know little about the experiences of coaches charged with delivering inclusive dodgeball practices, especially in relation to their learning and development when compared to more traditional team sports (e.g., football, cricket). Founded on the belief that understanding coaches’ experiences of innovative coach education initiatives (e.g., technology enhanced learning) has the potential to enhance the provision of SGBs, understanding the impact of an online Level 1 coach education award on dodgeball coaches’ learning and practice would seem to be a worthwhile endeavour.

**Methodology**

**Context: The Level 1 award in coaching dodgeball**

In 2020, British Dodgeball re-vamped its coach education provision to offer a range of online and face-to-face courses to meet the needs of all learners. British Dodgeball’s coach education pathway begins with several introductory courses aimed at young leaders and introducing people to the sport, before progressing on to Level 1, 2, and 3 awards in coaching dodgeball, which target PE teachers and community/club sport coaches who require an increased amount of technical and tactical knowledge (British Dodgeball, 2022b). The first of these coaching awards, the Level 1 Award (L1A), is an online course, which aims to provide learners with the core knowledge needed to deliver safe dodgeball coaching sessions across various settings, with content covering the rules and equipment, in addition to sport-specific techniques and coaching styles (British Dodgeball, 2022c).

The L1A contains a series of content sections which incorporate asynchronous and automated passages of text and images, with interactive elements such as videos and multiple-choice quizzes to assess learners’ understanding of the content and ability to apply knowledge, while enabling self-paced reflective opportunities. The multiple-choice quizzes can be considered a form of on-going assessment, as learners cannot progress to the next content section without achieving a minimum of 60%. However, a written summative assessment is also required, where learners must produce and upload a dodgeball coaching session plan which demonstrates their understanding of the course content and assessment criteria (see Table 1). This is marked by a tutor and can be failed, with retake opportunities available following tutor feedback. Although the focus of this research is the online L1A, it should be acknowledged that there is also a face-to-face version of the L1A available. The taught content remains the same, however, this version includes practical coaching delivery as the summative assessment.

**\*\*\*INSERT TABLE 1 HERE\*\*\***

Despite no time limit, British Dodgeball indicate that the online L1A should take roughly 4 hours to complete, including the assessment. Due to the design and structure of the course, the L1A can be considered an example of self-paced online learning, where some interaction exists between the learner, learning activities, and a tutor (Driska & Nalepa, 2020). Nevertheless, the term online training might be more appropriate for the L1A, as “interaction with an instructor might be zero or minimal, relying on automated tasks and assessments” (Driska & Nalepa, 2020, p. 167). Automated/asynchronous tasks and assessments such as readings, lecture-type videos, and multiple-choice quizzes are reflective of eXtended massive open online courses (MOOCs), grounded in a behaviourist pedagogical approach which emphasises individual learning (Conole, 2016; Griffiths et al., 2022). These learning activities which characterise eXtended MOOCs (e.g., mass-user online educational platforms, such as courses and other digital resources) result in active rather than social learning users (Griffiths et al., 2022), where learners engage in individual reflection, due to an inability to interact with others. Self-paced online learning is praised for its extensive reach, low costs, and reduced burden on coaches (Driska & Nalepa, 2020). Nonetheless, it has been questioned whether this format can provide authentic learning opportunities which impacts upon coaching practice (Crudgington, 2020; Griffiths et al., 2022). Although Moon (2001) does not offer a precise definition, the online L1A can be considered a short course due to its duration, concentrated subject matter, tutor(s) and learners not knowing each other, cost effectiveness, and the inclusion of multiple learning activities.

**Research design and data collection**

Situated within the interpretivist paradigm, a relativist ontology was adopted which assumes reality is socially constructed and multifaceted, alongside a subjectivist epistemology, which emphasises how knowledge is co-constructed and represents a non-foundational approach (Sparkes & Smith, 2014). Based upon these paradigmatic assumptions, a qualitative research approach was used to uncover coaches’ perspectives, experiences, and understanding, in relation to an issue (Creswell, 2013).

Akin to Nelson et al. (2013), we believed that a combination of research methods in the form of a qualitative online survey and virtual semi-structured interviews would offer greater breadth and depth of data when exploring coaches’ experiences of the L1A and its perceived impact on their learning and practice. During the first phase of data collection, a qualitative online survey was utilised to gather “nuanced, in-depth and sometimes new understandings of social issues” (Braun et al., 2021 p. 641). Alongside possessing various logistical advantages, qualitative online surveys provide a wide-angle lens to explore broad and niche topic areas, capturing a diverse range of participant experiences, perceptions, and practices (Braun et al., 2021). The qualitative online survey was developed using Google Forms and was structured via five sections. A participant information page was provided at the start of the survey containing information of the research aim, participant confidentiality, research outcomes, and completion instructions. Following this, participants progressed to Section 1 which comprised a series of statements, where participants needed to digitally sign to provide their informed consent to proceed with the survey.

The remainder of the survey was split into the following sections: Section 2 collected demographic information (e.g., participants’ age, gender, country of residence, and ethnicity). Section 3 focused on the participants’ coaching background, involving a combination of 10 open and closed questions related to the age of their athletes, their coaching domain, additional qualifications, and coaching experience. Section 4 included nine topic-based questions (Braun et al., 2021), which focused on addressing the aim of the research and understanding participants’ perspectives and experiences of the L1A (see Table 2). Section 5 concluded the survey and invited participants to take part in a follow-up virtual interview to supplement the survey data.

**\*\*\*INSERT TABLE 2 HERE\*\*\***

During the second phase (1 month post survey), coaches who were willing participated in a follow-up virtual interview, conducted via Microsoft Teams. As opposed to traditional in person interviews, virtual interviews should be viewed an *alternative method* of data collection researchers can employ (Hanna & Mwale, 2017). Specifically, interviews using Microsoft Teams provide several benefits, for example, flexibility of scheduling, enhanced participant control, ease of data capture, in addition to offering a more comfortable and empowering experience for participants (Hanna & Mwale, 2017). On average, interviews lasted for 48 minutes and were of a semi-structured nature. The interview guide was developed following preliminary analysis of the survey data, however, the semi-structured nature provided an element of adaptability, allowing the interviews to diverge and progress as the conversations evolved (Sparkes & Smith, 2014).

**Participants, recruitment, and sampling**

Having obtained institutional ethical approval, participants were recruited via email, with British Dodgeball disseminating the Google Forms online survey link through social media and their mailing list of coaches. Thus, sampling was broadly purposive (Braun & Clarke, 2013), as participants needed to be an active UK-based dodgeball coach who had completed the L1A at least 6-weeks before completing the survey. However, sampling also incorporated convenience-based (e.g., whoever completed the survey was recruited) and snowballing (e.g., participants may share the survey within their networks) strategies (Braun & Clarke, 2013; Sparkes & Smith, 2014). Sample size within qualitative survey research is not straightforward, with sizes generally ranging from 20 to over 100 responses (Braun et al., 2021). Driven by the aim and scope of the study, in addition to the breadth of topic area, 57 participants completed the online survey (see Table 3). Following this, 19 out of the 57 participants indicated they would be willing to take part in a virtual interview to delve further into their perspectives and experiences. However, due to coaches’ availability and time passed since initial survey completion, a total of eight participants were interviewed.

**\*\*\*INSERT TABLE 3 HERE\*\*\***

**Data analysis**

A reflexive thematic analysis process was adopted to interpret both the survey and interview data (Braun & Clarke, 2019). A reflexive approach builds upon Braun and Clarkes’ (2006) original six-phase model of thematic analysis in a recursive manner: familiarisation; coding; generating initial themes; reviewing and developing themes; refining, defining, and naming themes; and writing up. A reflexive thematic analysis process is theoretically flexible; thus, Moon’s (2001, 2004) framework was adopted as a lens to make sense of the data and to add analytic power (Braun & Clarke, 2019, 2022). The authors familiarised themselves with the data by reading/re-reading the survey responses through a process of immersion. The responses were then inductively (e.g., driven by the data) and deductively (e.g., guided by Moon’s concepts) coded, through identifying passages of interest guided by both theoretical and content relevance following prolonged engagement with the data (Braun & Clarke, 2022). Code labels as succinct words or phrases were attached to survey responses, to identify and highlight analytically interesting concepts and ideas (Braun & Clarke, 2022). Rather than seeking a consensus, the process of coding survey responses was collaborative between the researchers to enhance both reflexivity and interpretative depth, alongside recognising the existence of multiple ideas, assumptions, and interpretations of qualitative data (Braun & Clarke, 2019, 2022). As such, initial codes were developed following interpretative engagement with the survey data, acknowledging these might evolve and change through further immersion with the forthcoming interview data (Braun & Clarke, 2023).

 Having coded the survey responses, interviews were conducted, with the preliminary ideas and insights from the survey dataset informing the construction of the interview guide. Initial codes from the survey data were tentatively grouped together and placed into sections within the interview guide. For example, the interview guide was divided into topical sections derived from the survey codes such as ‘course structure and assessment’, ‘coaching beliefs and practices’, and ‘recommendations for SGB’. After transcribing all interviews, the phases of familiarisation and coding were followed once again with the interview data in an iterative manner. Furthermore, during these phases the initial codes assigned to the survey data and used to inform the interview guide were revisited to enhance rigour (Braun & Clarke, 2022). This distancing and time lapse between initial survey data coding and interview data coding enabled reflection and further insight to develop. Accordingly, the initial codes evolved in an organic way following enhanced understanding and (re)interpretation of the data and were then (re)applied across the entire survey and interview dataset at both a latent and semantic level (Braun & Clarke, 2022). Finalised codes were collated into generated themes as analytical outputs, which attempted to capture patterns and highlight significant areas of interest within the data (Braun & Clarke, 2019, 2022).

 Following prolonged analytical work, themes were generated to capture shared meaning around centralised concepts, as opposed to merely summarising topic areas (Braun & Clarke, 2023). Indeed, reflexive approaches to thematic analysis involve delayed theme generation following a substantial coding process, with generated themes considered a representation of the researchers’ subjectivities and personal interpretation (Braun & Clarke, 2022). The final phases involved refining, defining, and naming the generated themes before the write up, which incorporated data extracts alongside an analytical narrative to move beyond descriptive accounts (Braun & Clarke, 2019). In recognising Braun & Clarke’s (2023) call for researchers to display theoretical knowingness, a relativist approach to reflexive thematic analysis was deployed which aligns with the researchers’ paradigmatic position. As such, the analysis of data presents an account of the co-constructed (between participants and researchers) meaning within the dataset, offering a reading of constructed realities as opposed to an underlying truth (Braun & Clarke, 2022).

**Results and discussion**

As a result of the reflexive thematic analysis process, three themes were generated: (1) A surface or deep approach? Understanding dodgeball coaches’ experiences of the level 1 award; (2) Coaches’ preferences and learning styles: A barrier for online coach education; and (3) Enhancing the impact of online coach education: Assessment and post-award support.

**A surface or deep approach? Understanding dodgeball coaches’ experiences of the Level 1 award**

Callary et al. (2020) have highlighted a need to understand how coaches’ experience online coach education provision. In building upon existing research (e.g., Driska, 2018), participants were generally positive about their experiences of completing the L1A, praising the structure and learning activities, while indicating that the L1A enhanced their confidence to deliver dodgeball sessions.

Really enjoyed the course, enhanced my knowledge, and gave me more confidence to deliver the sport. (Participant 10)

I thought it was good. It was very well presented, very easy to understand and had good access to video links. For an online course, you can find them a bit repetitive and boring, but I genuinely enjoyed that one. (Participant 32, interview)

I thought the course was knowledgeable and gave you all the information needed to be able to deliver dodgeball sessions. (Participant 52)

Logistical factors such as time, cost, and travel have been recognised as barriers preventing coaches from attending face-to-face coach education (Gurgis et al., 2020). Therefore, it has been argued that online provision might overcome these obstacles, offering coaches increased accessibility and flexibility (e.g., Cushion & Townsend, 2019; Griffiths et al., 2022; Santos et al., 2019; Stoszkowski & Collins, 2022). In building upon this perspective, participants revealed that the self-paced nature of the online L1A was beneficial given their current situation.

Incredibly positive, it gave me the opportunity to undertake the course at home at my own pace and meant that I could go back over any areas of the course if required. (Participant 1)

Extremely good. Childcare is an issue for me to attend face-to-face coaching courses, whereas I could do this under my own steam at home. Feedback was great and the structure of the course was easy to understand. (Participant 7)

It was easy, in the sense that, it is there. You don’t have to go to a face-to-face course, so for some people, it was much more accessible, and I understand during lockdown that it worked well as people were still able to access the Level one course and also, I think if you got anything wrong, you could go back and do it again. So, that was the benefit of doing it online and you could do it in your own time. (Participant 41, interview)

While increased flexibility is advantageous, it has been argued that curriculum designers and coach developers need to strike a balance between effectively managing resources and facilitating coach learning within online settings (Newman et al., 2020). As such, while the L1A worked from a structural (self-paced, asynchronous) and logistical (reduced time, cost, and travel) perspective, this does not guarantee meaningful learning within online coach education (see Santos et al., 2021). Indeed, there was evidence to suggest that participants engaged in a surface, rather than deep, approach to learning when completing the L1A (Moon, 2001). This occurs when an individual does not reflect on content considering their own experiences and understanding, instead, content is memorised routinely which often fails to impact practice (Moon, 2001). For example, Trudel et al. (2013) state a “surface learning approach will be privileged when learners think, for example, that they already know the content (new material of learning), or the content appears useless” (p. 378). This was demonstrated by participants within the data.

For those that have informally coached and played dodgeball, there was quite a bit of repetition and already known knowledge. (Participant 1)

I don’t think any course is going to help you change your attitude or beliefs. I think you kind of have to want as a coach to develop and deliver things, and if you don’t want to change the way you deliver, I don’t think any course is going to help. (Participant 14, interview)

I’ve probably forgotten stuff, yeah, but I don’t think it is influencing my practice that much… I think most people going into it are wanting to go and do a bit of coaching and I don’t think it changes their beliefs or their attitudes. (Participant 41, interview)

My coaching beliefs are still the same and haven't changed. (Participant 52)

It would appear some participants have engaged in non-reflective learning via processes of assimilation (Moon, 2004). Through adopting a surface approach to learning, the cognitive structures of these coaches have remained unchanged by the L1A’s content (Moon, 2001). Research indicates that the cognitive structure of a coach functions as a filter, dictating whether content is either assimilated, accommodated, or rejected based upon prior experiences (Moon, 2001; Stodter & Cushion, 2017). In line with existing research (e.g., Cushion, 2013; Stodter & Cushion, 2017), for some coaches a surface approach to learning transpired through cherry picking ideas from the L1A which matched their existing cognitive structure. Therefore, session plans and practice ideas were reproduced if individuals believed they would work in their context.

I’m going to be planning new sessions in the coming weeks in which I will incorporate the games/practices that were given as examples. (Participant 10)

It was a very informative course that provided me with lots of ideas for sessions to do with the primary school children I teach. (Participant 56)

Given me more ideas about smaller games to play, and also how to design appropriate areas for the ages that I teach. (Participant 14)

For future teaching I have some great ideas of how to get students active and mixed abilities working together. (Participant 44)

The focus on adopting ideas which coaches think will work in practice resonates with a surface approach to learning, emphasised by content considered relevant being organised “on the basis of relatively superficial similarity” (Moon, 2001, p. 72), to coaches’ existing practice and beliefs. Akin to Cushion’s (2013) critical analysis of games-based coaching approaches, the data here suggests that coaches tampered with L1A material and reproduced delivered ideas which matched their cognitive structure, rather than reflecting upon and accommodating knowledge.

Nonetheless, limited signs of a deep or transformative approach to learning within the L1A were present (Moon, 2001). When a learner adopts a deep approach to learning they possess “an orientation towards seeking the meaning in the material and understanding the ideas in it… relating it to previous knowledge and understandings” (Moon, 2001, p. 61). Although self-reported, coaches to some extent demonstrated a process of accommodation, leading to a change in their cognitive structure and subsequent coaching practice (Moon, 2001, 2004). For example, Participant 11 explained how the content within the L1A has enabled them to build upon their previous knowledge related to inclusivity and session reviewing, helping to develop greater understanding.

Interviewer: So, as a result of completing the online course, do you feel that you now coach dodgeball differently?

I would say yes, definitely. Because at some point I may be teaching children in a primary school, and I now know that I do not want to be too technical. For example, when they do some specific dodges and they do them well… having knowledge of this specific action I think is good for the kids because it is good to reinforce everything, and it is part of the technical part which I think helps a lot with kids. The whole part about inclusion and reviewing, I had an idea beforehand, but I didn’t have it in practice, I was maybe doing it informally, but it is something that I do in a different way now, even when it focused on specific skills, I used to coach that informally, but it has made me confident and I understand it more, about why I am doing that. (Participant 11, interview)

In addition to enhancing their understanding of inclusivity and the importance of session reviewing, Participant 11 further highlighted how the L1A was able to expand upon their dodgeball specific technical knowledge and rules of the game.

I think from my current perspective, especially when I planned the review, inclusion, and all these parts, it was the first steppingstone really, and I think it has had an influence, it was my first try really, and it was the first steppingstone for me to carry on different things. For example, I really think I would have struggled to have the technical knowledge that I have in dodgeball, I would not have it, so it definitely helps me in terms of the rules and situations. (Participant 11, interview)

Additional participants also began to suggest that the L1A has enabled them to make changes to their coaching practice, specifically in relation to their session planning, design, and adopted pedagogical approach.

Yes, more actively writing down session plans and sharing with other coaches rather than improvising. Structuring sessions differently to include more time to engage with participants on a 1:1 basis. (Participant 40)

I have been able to take a different approach to when I am planning a session with a particular focus on age and ability. (Participant 51)

Changes to the area layout has been the biggest change. Also, now I deliver the sessions more of a whole-part-whole theme rather than just games-based. (Participant 52)

It has been proposed that online coach education has the potential to help coaches deepen their understanding of reflection (Cushion & Townsend, 2019), with recent literature demonstrating how such provision can facilitate coaches’ capacity to become self-reflective (e.g., Driska, 2018; Griffiths et al., 2022; Santos et al., 2019). Findings from this research echo these sentiments, with Participant 47 describing how the online L1A has improved their ability to engage with reflection and critically reflect upon their use of coaching interventions.

I would probably say like the reflection, there was a section where they put you in a scenario as if you were the coach and what are you trying to get out of the session and I think that’s the most important thing that I thought I was going into because it gave me an idea of what I want to get out of the session and different age groups, I think I mentioned before about the kids having fun… and it got me thinking how to coach some of the kids, do you show them or tell them? Demonstrate or let one of them demonstrate? (Participant 47, interview)

This aspect was emphasised further by Participant 47, who explained how the L1A has encouraged them to critically reflect before, during, and after session delivery regarding their session aims and participant needs.

So, you know what you’re doing before the session, during the session and then after the session as well, so you’re reflecting after the session on how you coach and take that on which I didn’t really know. Before if I was going to coach, I wouldn’t reflect, and it is a massive part of coaching, getting the right session, meeting the aims of the session. So, in terms of the level one, it did that for me. It also kind of meant I thought about the different types of participants, you’ve got some that you know and also some that may have never played it before, so they’ve got experience but still make the effort to get to know them and stuff like that, so it was interesting. (Participant 47, interview)

Consequently, the L1A supported participants in becoming more self-reflective towards their coaching practice, echoing previous research into online coach education (see Driska, 2018). Specifically, Participant 11 alluded to developing enhanced confidence and knowledge from the L1A, which has increased their ability to reflect upon their session delivery while planning future changes to practice.

First, is confidence and knowledge, I am much more confident and knowledgeable about the sport, and it was good as well for my school. For me, it gave me some ideas of what we can focus on to have an order and it gives a plan of what to do, so when you do something and then review it and you think of what you are going to do next time. It gives you a basis, where before I thought about it a little but now, I am more precise than before, I would say more confident in what I am doing. (Participant 11, interview)

Moon (2001) argues that unless courses have an impact on an individual’s practice (e.g., by facilitating deep learning and reflection), there is little point in their existence. Problematically, online provision is often evaluated via course attendance, as opposed to changes in coaches’ learning and behaviour (Trudel et al., 2013). Nonetheless, these findings echo previous research (e.g., Driska, 2018), which demonstrates how online coach education can instigate self-reported changes to coaching practice through enhanced reflection. Fundamentally, the impact of the L1A on practice is guided by a coach’s cognitive structure, which largely facilitated a surface, rather than deep, approach to learning (Leduc et al., 2012; Moon, 2001).

**Coaches’ preferences and learning styles: A barrier for online coach education**

The L1A in coaching dodgeball can be completed either 100% online or face-to-face, allowing coaches to tailor their learning experience. While social interaction can facilitate, reinforce, or even hinder learning (Moon, 2001), coaches indicated that completing the L1A online prevented them from asking questions and engaging in informal discussions with other learners, which they believed to be beneficial to their learning. Moreover, there were suggestions that taught content within online coach education is finite, whereas further knowledge could be accessed in face-to-face courses.

Being able to ask more in-depth questions would have been helpful. The knowledge on the online courses is finite whereas when face-to-face with an experienced coach [tutor] there is a greater depth of knowledge to be gained. (Participant 30)

I do think, the shared experience of a mentor [tutor] can be invaluable, although it does depend on the mentor [tutor]. Face-to-face will trump online regarding the wealth of knowledge gained (the knowledge obtainable from online is finite, whereas face-to-face the potential topics or experiences are endless) … Being able to rely on a mentor's [tutor’s] own unique experiences and ask them questions when being face-to-face is an obvious advantage over an online course. (Participant 34)

I think the content is sufficient for learning online. I have always found face-to-face courses more ideal for Q&A, seeing practices in person and meeting other coaches. I always find that you learn just as much from other coaches as the course itself. (Participant 52)

Research has consistently showed that coaches prefer to learn through informal mechanisms such as interactions and observations with other coaches (Nelson et al., 2013; Leeder et al., 2021; Van Woezik et al., 2022). Furthermore, within formal learning contexts, coaches have expressed a desire for opportunities to discuss, debate, and share ideas with fellow learners (Nelson et al., 2013). Interactive learning activities such as group discussions, questioning, and problem solving “are common means of stimulating the deepening or integration of learning” (Moon, 2001, p. 146). For Moon (2001), learning activities such as these have a greater potential to facilitate deep and reflective learning.

Although online coach education provision can offer interactive and collaborative activities which stimulate deep learning, such as written blogs, synchronous discussions, and video-based online communication (Cushion & Townsend, 2019; Driska & Nalepa, 2020; Santos et al., 2021; Stoszkowski et al., 2021), this potential was lost due to the asynchronous, self-paced format of the online L1A. Hence, due to the L1A being positioned as an eXtended MOOC which emphasises individual learning and limited collaboration (Conole, 2016; Griffiths et al., 2022), participants assumed that attending the face-to-face version would have enabled them to discuss and network with others. Nonetheless, a trade-off existed, while participants desired interaction with others that face-to-face coach education provides, they were aware this would decrease the accessibility of coach education as previous research has indicated (see Gurgis et al., 2020; Van Woezik et al., 2022).

With face-to-face you are able to bounce ideas off each other and demonstrate the different areas of the course which you are not able to do online, but an online course means that you are able to do it at your own pace and go over any content. (Participant 1)

I think especially it is difficult to find courses because of the travel… I mean I had to take the train at 5:30am to go to the courses and things like this for some of my courses so online, especially at the time of COVID, the practicality of it was really great… You can be anywhere; you do not have to worry about money to travel or the practicality of trains or anything like this… The thing is, when I did a face-to-face course, I felt like I knew nothing, the coach [tutor] made me realise that I did not know it, so face-to-face definitely has its advantages… most people will want to say they want to do it online for the practicality. (Participant 11, interview)

The direct comparison in delivery vehicles is that human interaction makes the learning more impactful and practical observation and participation removes a great deal of confusion and many misconceptions. Also, the chance to share tips, stories, and network is fantastic. However, the online option for a basic level course is great as it allows for own pace of learning, no embarrassment if no knowledge or experience in the sport and can fit into personal or allocated time at work to complete. (Participant 25)

The opportunity to share ideas with other coaches would be beneficial, though the convenience of completing it online in my own time would have been lost. (Participant 54)

Coaches’ perspectives and preferences towards the L1A is likely to be influenced by their cognitive structure, which acts as a filter towards new learning (see Leduc et al., 2012; Moon, 2001; Stodter & Cushion, 2017). Recent research has highlighted how coaches’ dispositions towards engaging with online learning depends on whether their previous experiences of using such provision were positive or negative (Leeder et al., 2021). Consequently, coaches’ will possess idiosyncratic perspectives towards the perceived value in the online L1A, with differences between learners attributed to their understanding of learning (Moon, 2001).

Thus, the findings suggest that coaches’ beliefs about learning (e.g., how they think they learn best), influenced how beneficial they perceived the online L1A to be. In echoing the work of Bailey et al. (2018), coaches frequently referred to the notion of learning styles and the visual, audio, reading, and kinaesthetic (VARK) inventory, despite limited evidence to support its claims. Coaches’ perceptions towards the L1A were structured by beliefs towards whether the online course facilitated their preferred learning style. For example, Participant 7 highlighted how they are a visual learner, with the online L1A supporting their perceived learning style.

I really liked looking at the pictures of the courts. I'm a visual learner and it helped me to understand the proper layout and then how you implement the rules… I am personally a very visual person as well, so I am not good in an academic setting and if you sit me down for too long then I will just get bored and I want stuff that has my attention. So, yeah, I do think it’s great that I can read something, then re-read something or go away and get a drink, come back, and read it again. (Participant 7, interview)

Despite a lack of compelling evidence, research by Bailey et al. (2018) indicates that 62% of coaches believe they learn better when they receive information in their preferred style. Thus, coaches’ misconceptions towards learning styles can be considered a conceptual dilemma, referring to “practitioners’ understanding of learning, their assumptions and beliefs, and their ontological and epistemological underpinnings” (Cushion, 2013, p. 65). Coaches’ understanding of learning was underpinned by folk pedagogies (i.e., implicit beliefs) regarding learning styles and what is considered as good learning, which functions as a filter and structures whether the online L1A was considered a meaningful learning opportunity (Bruner, 1999; Cushion, 2013). Some coaches believed they would have learned more if they attended the face-to-face version of the L1A, due to being either a visual or kinaesthetic (practical) learner.

I think it was better than a lot of the online courses… In terms of other courses, I have done, they have been in person, and I think people learn in different ways and I am kind of better at learning by seeing so having someone deliver a session and being able to go and deliver it. I think that’s more beneficial to me, but I did still learn a lot from the online course. (Participant 14, interview)

I like to see the exercises in action, and it is helpful to experience these first-hand before trying to use them in your own coaching sessions. (Participant 30)

I am a kinaesthetic learner - learn best by doing not sitting at a computer. (Participant 33)

I learn better when I am practical, because I’m there talking so I can ask more questions, and that was one of the things on the course that I couldn't do, you know, ask questions. If I wanted to know information a bit more, I had to kind of do that myself and go on Google and stuff like that. Whereas if I was in person and doing it, then I can just ask questions and see how it's done. (Participant 47, interview)

Moon (2001) suggests that learners will develop different perceptions of learning through experiences within variable educational cultures, with pseudoscientific myths such as the VARK inventory prevalent within coach education provision (Stodter, 2021). Indeed, Bailey et al. (2018) outline how “questionable ideas and practices, like learning styles… are not simply acquired by coaches through their own personal interest, they are often actively promoted by sports organisations” (p. 9). Nonetheless, while the L1A did not promote the VARK inventory, the course did little to dispel the myth. When considering online coach learning, folk pedagogies surrounding learning styles are restrictive and potentially harmful, as these unfounded beliefs might deter coaches’ from engaging with online learning opportunities without an evidenced-informed rationale (Stodter, 2021).

**Enhancing the impact of online coach education: Assessment and post-award support**

Online coach education can provide SGBs with flexible, diverse, and innovative approaches towards assessment (Cushion & Townsend, 2019). However, curriculum designers and coach developers must consider what they want coaches to learn and how that can be assessed, rather than choosing assessment formats which are easy to implement (e.g., automated quizzes), as they may lack depth and authenticity (Driska & Nalepa, 2020; Santos et al., 2021). For Moon (2001), assessment can be seen as an opportunity for learning to be represented, with different assessment formats resulting in different forms of representation (e.g., a deep or surface approach to learning).

 The online L1A contains regular multiple-choice quizzes which can be considered as on-going assessment. However, the primary summative assessment for the L1A involves a written task, where learners must produce a dodgeball coaching session plan demonstrating their understanding of the course content and assessment criteria, which is marked by a tutor and can be failed, with resubmission opportunities available. As Participant 43 demonstrates, there was evidence to suggest this assessment resulted in a surface approach, driving learning the wrong way (Moon, 2001).

I think there’s needs to be some sort of assessment to show an understanding because the question that they set, it was just a case of me looking through the text and going, oh okay, I’m just going to copy and paste that… I think the assessment, well that part should change. (Participant 43, interview)

Some participants recognised that the assessment in its current format resulted in a different learning strategy being adopted i.e., copying, and pasting taught content needed to pass (Moon, 2001). Consequently, there were suggestions that the L1A could embrace more innovative forms of assessment, which help capture coaches’ understanding and interpretation of taught content. Indeed, a key driver of this was the need to provide evidence of practical coaching delivery, as explained by Participant 14.

I think maybe being able to show evidence or proof that you’ve delivered a session, I think that could be quite useful. I know with the Level two football; you have to prove that you’ve delivered ten sessions. So even if you just kind of have evidence that you have delivered a session, whether that’s to your friend or someone else, that you kind of film meeting all the points that they want. (Participant 14, interview)

Participant 14 further outlined how a flipped or hybrid approach to assessment could be included within the L1A, which has been suggested by Crudgington (2020). This format would involve delivered content remaining online, supplemented with follow-up assessment workshops in person.

I think having the information online is still really useful, but I think it would be good, maybe even to have a half day, just with the assessment to be able to deliver a session. So having a tutor to go through sessions first and then kind of having different people there to deliver a session, so you’ve already done the information because that’s kind of the longest part of the course… so already having read through it and already knowing the information but then doing an assessment and actually delivering with other people, I think would be really useful. (Participant 14, interview)

While acknowledging the logistical aspects associated with embedding in person assessment days within online courses, participants also believed there would be value in uploading recorded videos of practical coaching sessions, which would allow collaborative discussions (synchronously or asynchronously) and shared reflections (see McCarthy et al., 2021). Video review also shifts the responsibility to the coach and enables a more contextualised assessment experience (Cushion & Townsend, 2019; Hay et al., 2012).

Perhaps a session video submission option instead of a written plan - to be more equivalent to a face-to-face session. Plus, a feedback session (peer and tutor) to go through written or video submissions. (Participant 40)

Perhaps, they could do something where the participants have to do a video of themselves delivering a session, and then that gets uploaded and that becomes part of their assessment because obviously in a face-to-face course, the assessor is constantly assessing them all day. (Participant 41, interview)

There are numerous ways of doing it [assessment] so you could do something like this [Microsoft Teams video call] and do a presentation or if in person, it could be in a sports hall, and then the Level two coach can be the one marking you and then they send the results in so there’s a number of ways of doing it. (Participant 43, interview)

Despite the L1A being online, utilising video review would represent a move towards more authentic forms of assessment where deep learning is enhanced (Moon, 2001). Research has indicated that adopting video review within coach education has the potential to enhance coaches’ pedagogical knowledge in a contextual and bespoke manner (Araya et al., 2015; Hay et al., 2012). In this instance, if learners’ video themselves delivering a coaching session and submit their footage for feedback, they are likely to enter an *active experimentation* phase, where learning is represented beyond merely reproducing taught content (Moon, 2001). Moreover, Moon (2001) has indicated that “teaching the material of learning meaningfully to another… may require even deeper stages of learning” (p. 79). Thus, participants’ recommendations for more authentic forms of assessment within the L1A, where individuals can video themselves practically coaching others, might result in a deeper approach to learning and warrants further research exploration.

 In addition to offering their thoughts on how the assessment could be improved, participants identified a need for follow-up support post-completion of the L1A. As acknowledged previously, interaction and engagement with fellow learners and the course tutor are limited within the current L1A structure. Therefore, this aspect was strongly desired by participants, with online discussion boards presented as potential avenue as recent research has suggested (see Stoszkowski et al., 2021; Stoszkowski & Collins, 2022).

You could create an online forum on the British Dodgeball website so there is their own forum page. You could also, get in contact with other people completing the course so we could get in contact with each other, and they can share their knowledge. Mainly networking through exchanging emails too. (Participant 43)

Maybe like a Facebook group chat, you know people who are doing dodgeball sessions and delivering on a weekly basis so you can say you’re stuck with the scenarios or stuck with something, then you could ask in the group chat and someone might give you an answer to help each other out or someone might live locally or close by then they could come help put with the session. (Participant 47, interview)

Moon (2001) outlines how extra support via mentoring or tutorials after short courses can help bridge the transition between theoretical content and workplace practice. Within the sport coaching literature, mentoring has been identified as a preferred source of learning for sport coaches, offering contextualised learning opportunities *in situ* (Leeder & Sawiuk, 2021; Van Woezik et al., 2022). Therefore, having specific access to a mentor who could answer questions, stimulate reflection, and generally support the coach learning process was considered a valuable addition to support the online L1A, as indicated by Participants 14 and 47.

Maybe someone from British Dodgeball to catch up with you every three or six months, just seeing kind of like what you’re doing, how it is going, and being there to support if you have any questions or ideas, not forever, maybe just like for the first year. Maybe, twice after six months in the year, so kind of just to give you ideas or be there for support. (Participant 14, interview)

Since I did the course, I've not really heard anything back or anything… But having a mentor or someone, say you’re doing the sessions on a weekly basis like I am, every two weeks or even a month, going to them and explaining to them and then just talking with them, letting them guide you for someone who has been coaching for a longer time or knows more than me, I think that could make a big difference. (Participant 47, interview)

Although mentoring opportunities could be in person, considering the online nature of the L1A, virtual mentorship via email, online workshops, and other digital devices was proposed by participants (see Grant et al., 2020).

I would love a mentor that actually taught me how to be a good coach… a dedicated mentor, even if it's just like a WhatsApp thing or email questions. It would be good to have someone that you’re not working with or coaching with all the time, yeah, an objective or independent person, that would be really helpful. (Participant 2, interview)

Each person should be assigned a mentor who has got experience at Level two with maybe three of four years’ experience, and they can help the Level ones… it would have been useful to have a mentor or forum page where you can ask questions and a level two coach would answer them or it would be useful to have online classes. It doesn’t have to be in person because if somebody's on the other side of the country or the other side of the world, it would still be possible. (Participant 43, interview)

Accessing a mentor who can offer support and facilitate discussion-based learning opportunities would provide dodgeball coaches with the chance to upgrade their learning, progressing from a surface to a deep approach (Moon, 2001). While participants were able to demonstrate some evidence of deep learning, further benefits may have arisen if they were “afforded moments to take part in on-the-ground instructor-facilitated opportunities” (Santos et al., 2019, p. 7). As such, mentoring support may enable learning to be deepened through interactions and reflections in context (Leeder & Sawiuk, 2021), with this resulting in a process of accommodation and modification to a coach’s cognitive structure (Moon, 2001).

**Concluding thoughts and recommendations**

The aim of this research was to understand the impact of an online Level 1 coach education award on dodgeball coaches’ learning and practice. Despite the growth of and increased opportunities for, online coach education (Callary et al., 2020), limited empirical evidence exists which explores coaches’ experiences of such provision, in addition to how it impacts coach learning and practice (Cushion & Townsend, 2019; Stoszkowski & Collins, 2022; Trudel et al., 2013). Consequently, the findings from this research contribute to this growing field within coach education scholarship and helps to address “the current lack of published literature on the topic of successful online coach education” (Callary et al., 2020, p. 584). Moreover, while previous studies have applied Moon’s (2001, 2004) theoretical framework when analysing face-to-face coach education, this research adopts these concepts to explicitly understand the impact of online coach education within an underrepresented sport, further contributing to the literature.

 In summarising the findings, participants were generally positive about their experiences of completing the L1A, praising the self-paced nature which helped to overcome logistical barriers (Gurgis et al., 2020). However, the impact of the L1A on coaches’ practice was mixed, with predominantly surface (e.g., reproducing ideas, cherry-picking), as opposed to deep (e.g., transformative, reflective) approaches to learning occurring (Moon, 2001). Although the impact varied, it can be argued that the L1A represents a successful form of online coach education (Callary et al., 2020), with some changes to learning and practice present (albeit self-reported). Coaches’ cognitive structures guided both their preferences and learning, which influenced the value individuals attached to online provision and whether they believed the L1A aligned with their learning styles. Indeed, the findings reiterate how a coach’s cognitive structure functions as a filter which facilitates or hinders the impact of online learning opportunities (Moon, 2001; Stodter & Cushion, 2017). Participants were also able to draw upon their experiences to provide several recommendations to enhance the impact of the L1A. These recommendations align with contemporary coach development literature (e.g., Leeder & Sawiuk, 2021; McCarthy et al., 2021; Van Woezik et al., 2022), in calling for innovative and authentic assessment formats, increased social interaction, alongside opportunities for mentorship.

It is important to acknowledge that while coach developers will attempt to facilitate and accelerate coach learning within online settings, “ultimately it is the individual coach who will determine the usefulness of the learning context… what is learned by each coach will vary depending on their unique previous experiences, approaches to the learning situations, and the assimilation and accommodation processes” (Trudel et al., 2013, p. 380). However, Moon (2001) strongly reiterates that a crucial tenet behind deep learning is reflective practice. Consequently, coach developers cannot assume that reflection just occurs when delivering online provision and must ensure adequate time is dedicated towards facilitating reflective conversations via interactive learning activities (Culver et al., 2019; Stoszkowski et al., 2021).

 Within online provision the role of the coach developer may shift to that of learning designer (Driska & Nalepa, 2020), where the creation and delivery of rich media, innovative learning activities, and enhanced knowledge of technological informed pedagogies is required. Therefore, it is perhaps fair to suggest that coach developers working in online spaces require careful recruitment and training procedures (Griffiths et al., 2022; Stoszkowski et al., 2021), as they strive to nudge coaches “towards a more critically reflective level of participation” (Santos et al., 2021, p. 175). Thus, avenues for future research may look to understand the role of the coach developer within online coach education. As Trudel et al. (2013) stipulate when discussing online coach development, “we need longitudinal studies that will start with the program designers, and then move to the facilitators… to the coaches attending the courses, and finally that will look at coaches performing” (p. 382). To fully understand whether online coach education can support coaches in adopting a deep approach to learning, it would seem worthwhile to analyse the roles and functions of curriculum designers and coach developers who are responsible for this task. Moreover, combining data collection methods such as systematic observation with qualitative interviews over time may provide evidence of changes to coaching practice following an online coach education intervention, helping to move beyond an overreliance on self-reported data (Cushion, 2019).

To enhance the impact of learning within short courses and to support curriculum designers and course facilitators (e.g., coach developers), Moon (2001) developed a four-phase framework which can be viewed as a flexible guide which can be adapted for the designated learning context. In drawing upon this framework, some recommendations and considerations for online coach education courses are provided below in the hope of encouraging a deep approach to learning which will stimulate changes to coaching practice (Moon, 2001; Trudel et al., 2013).

1. ***Develop awareness of the nature of current practice:*** The coach developer(s) might utilise a mixture of synchronous/asynchronous learning activities to encourage coaches to reflect upon their current practice, beliefs, and experiences. Focus on interrogating previous knowledge and practice.
2. ***Clarify new learning and how it relates to current understanding:*** Opportunities should exist for coaches to develop an understanding of how new knowledge relates to their existing practice, beliefs, and experiences. Focus on clarifying the differences between new knowledge and previous practice.
3. ***Integrate new learning and current practice:*** Coaches’ might engage in problem-based learning and role-playing tasks involving interaction, collaboration, and debate to explore how new knowledge might be integrated within their practice.Focus on understanding how new knowledge might be utilised within coaching scenarios.
4. ***Anticipate or imagine the nature of improved practice:*** Online provision should focus on the continued improvement of practice. This phase provides “an anticipation of future activity” (Moon, 2001, p. 130), where coaches reflect on how their practice is improved because of newly developed knowledge.Focus on a longer-term view and examine how to practically apply new knowledge to future practice, considering contextual factors.

These phases focus on enhancing learning during courses and awards, such as when a coach is engaging with online tasks. SGBs might also reflect upon how extra resources, enhanced social interaction, *in situ* learning opportunities (e.g., mentoring), and on-going authentic assessment procedures can be embedded within online coach education programmes to develop a hybrid approach (Crudgington, 2020). As Piggott (2015) outlines, online coach education provision should not replace existing structures, instead, there is a need to increase the layering of options to offer more bespoke learning experiences for coaches. Rather than a panacea, online coach education should be reframed as “a first step in a series of coach development exercises, which could include certifications, communities of practice, and formal mentorship” (Driska & Nalepa, 2020, p. 176). It is hoped the findings of this research offers food for thought for SGBs and organisations who might be considering the value and impact of online coach education provision.

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**References**

Araya, J., Bennie, A., & O’Connor, D. (2015). Understanding performance coach development: Perceptions about a postgraduate coach education program. *International Sport Coaching Journal*, 2(1), 3–14. <https://doi.org/10.1123/iscj.2013-0036>

Bailey, R. P., Madigan, D. J., Cope, E., & Nicholls, A. R. (2018). The prevalence of pseudoscientific ideas and neuromyths among sports coaches. *Frontiers in Psychology*, *9*(641), 1–11. <https://doi.org/10.3389/fpsyg.2018.00641>

Barney, D. C., & Prusak, K. A. (2021). Will dodgeball ever die? Former K–12 students’ experiences and perceptions of playing dodgeball in PE class. *The Physical Educator*, *78*, 315–332. <https://doi.org/10.18666/TPE-2021-V78-I3-10402>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. [https://doi.org/10.1191/1478088706qp063oa](https://psycnet.apa.org/doi/10.1191/1478088706qp063oa)

Braun, V., & Clarke, V. (2013*). Successful qualitative research: A practical guide for beginners*. Sage

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. Sage.

Braun, V., & Clarke, V. (2023). Is thematic analysis used well in health psychology? A critical review of published research, with recommendations for quality practice and reporting. *Health Psychology Review*. <https://doi.org/10.1080/17437199.2022.2161594>

Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2021). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, *24*(6), 641-654. <https://doi.org/10.1080/13645579.2020.1805550>

British Dodgeball. (2019). *Dodgeball status report 2019*. Huddersfield.

British Dodgeball (2022a). *The dodgeball survey 2022 report*. Available at: <https://www.britishdodgeball.org/wp-content/uploads/2022/04/The-Dodgeball-Survey-2022-Report.pdf>, accessed July 14th, 2022.

British Dodgeball (2022b). *Coach education pathway.* Available at: <https://www.britishdodgeball.org/wp-content/uploads/2021/03/British-Dodgeball-Coach-Education-Pathway.pdf>, accessed July 14th, 2022.

British Dodgeball (2022c). *Level 1 award in coaching dodgeball*. Available at: <https://www.britishdodgeball.org/product/level-1-award-in-coaching-dodgeball/>, accessed July 14th, 2022.

Bruner, J. (1999). Folk pedagogies. In B. Leach & B. Moon (Eds.), *Learners and pedagogy* (pp. 4–20). Open University Press.

Butler, J., Burns, D. P., & Robson, C. (2021). Dodgeball: Inadvertently teaching oppression in physical and health education. *European Physical Education Review*, *27*(1), 27–40. <https://doi.org/10.1177/1356336X20915936>

Callary, B., Brady, A., Kiosoglous, C., Clewer, P., Resende, R., Mehrtens, T., Wilkie, M., & Horvath, R. (2020). Making sense of coach development worldwide during the COVID-19 pandemic. *International Journal of Sport Communication*, *13*(3), 575–585. <https://doi.org/10.1123/ijsc.2020-0221>

Conole, G. (2016). MOOCS as disruptive technologies: Strategies for enhancing the learner experience and quality of MOOCs. *RED: Revista de Educacion a Distancia*, *50*(2), 1–18. <http://dx.doi.org/10.6018/red/50/2>

Creswell, J.W. (2013). *Qualitative inquiry and research design* (3rd ed.). Sage.

Crudgington, B. (2020). Authentic e-learning: Using an educational design research approach to develop a hybrid coach education program. In B. Callary & B. Gearity (Eds.), *Coach education and development in sport: Instructional strategies* (pp. 178–189). Routledge.

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. <https://doi.org/10.1123/iscj.2018-0081>

Cushion, C. J. (2013). Applying game centred approaches in coaching: A critical analysis of the ‘dilemmas of practice’ impacting change. *Sports Coaching Review*, *2*(1), 61–76. <https://doi.org/10.1080/21640629.2013.861312>

Cushion, C. (2019). Observing coach behaviours: Developing coaching practice and coach education? In R. Thelwell, & M. Dicks (Eds.), Professional advances in sports coaching: Research and practice (pp. 358–376). Routledge.

Cushion, C., & Townsend, R. C. (2019). Technology-enhanced learning in coaching: A review of literature. *Educational Review*, *71*(5), 631–649. <https://doi.org/10.1080/00131911.2018.1457010>

Driska, A. P. (2018). A formative, utilization-focused evaluation of USA swimming’s nationwide online coach education program. *International Sport Coaching Journal*, *5*(3), 261–272. <https://doi.org/10.1123/iscj.2017-0096>

Driska, A. P., & Nalepa, J. (2020). Self-paced online learning to develop novice, entry-level, and volunteer coaches. In B. Callary & B. Gearity (Eds.), *Coach education and development in sport: Instructional strategies* (pp. 166–177). Routledge.

Gurgis, J. J., Kerr, G. A., & Stirling, A. E. (2020). Investigating the barriers and facilitators to achieving coaching certification. *International Sport Coaching Journal,* *7*(2), 189–199. <https://doi.org/10.1123/iscj.2019-0043>

Grant, M. A., Bloom, G. A., & Lefebvre, J. S. (2020). Lessons learned: Coaches’ perceptions of a pilot e-mentoring programme. *International Sport Coaching Journal*, *7*(1), 22–30. <https://doi.org/10.1123/iscj.2018-0058>

Griffiths, M. A., Goodyear, V. A., & Armour, K. M. (2022). Massive open online courses (MOOCs) for professional development: Meeting the needs and expectations of physical education teachers and youth sport coaches. *Physical Education and Sport Pedagogy*, *27*(3), 276–290. <https://doi.org/10.1080/17408989.2021.1874901>

Hanna, P., & Mwale, S. (2017). “I’m not with you, yet I am…”: Virtual face-to-face interviews. In V. Braun, V. Clarke, & D. Gray (Eds.), *Collecting qualitative data: A practice guide to textual, media and virtual techniques* (pp. 256–272). Cambridge University Press.

Hay, P., Dickens, S., Crudgington, B., & Engstrom, C. (2012). Exploring the potential of assessment efficacy in sports coaching. *International Journal of Sports Science & Coaching*, *7*(2), 187–198. <https://doi.org/10.1260/1747-9541.7.2.187>

Leduc, M., Culver, D.M., & Werthner, P. (2012). Following a coach education programme: Coaches’ perceptions and reported actions. *Sports Coaching Review*, *1*(2), 135–150. https://doi.org/10.1080/21640629.2013.797752

Leeder, T. M., & Sawiuk, R. (2021). Reviewing the sports coach mentoring literature: A look back to take a step forward. *Sports Coaching Review*, *10*(2), 129–152. <https://doi.org/10.1080/21640629.2020.1804170>

Leeder, T. M., Warburton, V. E., & Beaumont, L. C. (2021). Coaches’ dispositions and non-formal learning situations: An analysis of the ‘coach talent programme’. *Sport in Society*, *24*(3), 356–372. <https://doi.org/10.1080/17430437.2019.1672154>

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. <https://doi.org/10.1177/1747954116676116>

Lyle, J., & Cushion, C. (2017). *Sport coaching concepts: A framework for coaching practice* (2nd ed.). Routledge.

Manning, R. D., Jenny, S. E., Keiper, M. C., & Drane, D. D. (2016). Hall of shame revisited: The appropriateness and legal implications of employer-sponsored dodgeball and kickball events. *Journal of Contemporary Athletics*, *10*(3), 215–225.

McCarthy, L., Allanson, A., & Stoszkowski, J. (2021). Moving toward authentic, learning-oriented assessment in coach education. *International Sport Coaching Journal*, *8*(3), 400–404. <https://doi.org/10.1123/iscj.2020-0050>

Moon, J. (2001). *Short courses and workshops: Improving the impact of learning and professional development*. Kogan Page.

Moon, J. (2004). *A handbook of reflective and experimental learning: Theory and practice*. Routledge.

Nelson, L., Cushion, C., & Potrac, P. (2013). Enhancing the provision of coach education: The recommendations of UK coaching practitioners. *Physical Education and Sport Pedagogy*, *18*(2), 204–218. <http://dx.doi.org/10.1080/17408989.2011.649725>

Newman, T. J., Santos, F., Cardoso, A., & Pereira, P. (2020). The experiential nature of coach education within a positive youth development perspective: Implications for practice and research. *International Sport Coaching Journal*, *7*(3), 398–406. <https://doi.org/10.1123/iscj.2019-0106>

Piggott, D. (2015). The Open Society and coach education: A philosophical agenda for policy reform and future sociological research. *Physical Education and Sport Pedagogy*, *20*(3), 283–298. <http://dx.doi.org/10.1080/17408989.2013.837435>

Santos, F., Camiré, M., MacDonald, D. J., Campos, H., Conceição, M., & Silva, A. (2019). Process and outcome evaluation of a positive youth development-focused online coach education course. *International Sport Coaching Journal,* *6*(1), 1–12. <https://doi.org/10.1123/iscj.2017-0101>

Santos, F., Cardoso, A., Pereira, P., & Strachan, L. (2021). Coach training within the Covid-19 pandemic: Challenges and potential pathways. *Frontiers in Psychology*, *12*(570706), 1–5. <https://doi.org/10.3389/fpsyg.2021.570706>

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

Stewart, C. (2006). The Montana model. *Journal of Physical Education, Recreation & Dance*, *77*(4), 34–44. <https://doi.org/10.1080/07303084.2006.10597861>

Stodter, A. (2021). Myths about learning styles in sport coach education. In A. Whitehead & J. Coe (Eds.), *Myths of sport coaching* (pp. 66–77). Sequoia Books.

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. <https://doi.org/10.1080/2159676X.2017.1283358>

Stoszkowski, J., & Collins, D. (2022). A realist evaluation of the use of Flipgrid to facilitate collaborative online learning and reflection in sport coaching. *Sport, Education and Society*, *27*(8), 906–921. <https://doi.org/10.1080/13573322.2021.1952180>

Stoszkowski, J., Hodgkinson, A., & Collins, D. (2021). Using Flipgrid to improve reflection: A collaborative online approach to coach development. *Physical Education and Sport Pedagogy*, *26*(2), 167–178. <https://doi.org/10.1080/17408989.2020.1789575>

Trudel, P., Culver, D., & Werthner, P. (2013). Looking at coach development from the coach-learner’s perspective: Considerations for coach development administrators. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Routledge handbook of sports coaching* (pp. 375–387). Routledge.

Van Woezik, R. A., McLaren, C. D., Côté, J., Erickson, K., Law, B., Lafrance Horning, D., Callary, B., & Bruner, M. W. (2022). Real versus ideal: Understanding how coaches gain knowledge. *International Sport Coaching Journal*, *9*(2), 189–202. <https://doi.org/10.1123/iscj.2021-0010>

Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches learn to coach. *The Sport Psychologist*, *20*(2), 198–212. https://doi.org/10.1123/tsp.20.2.198

Table 1. Summary of the Level 1 award in coaching dodgeball (adapted from British Dodgeball, 2022a)

|  |  |
| --- | --- |
| **Course Feature** | **Course Description** |
| Overview | * The Level 1 award in coaching dodgeball is an online course which provides learners with the essential knowledge to use dodgeball as a vehicle to get groups active in a range of settings.
 |
| Content | 1. Dodgeball in the UK (historical/contemporary overview).
2. Equipment and spaces (e.g., ball sizes and court layout).
3. Rules of dodgeball (e.g., junior vs. adult).
4. Coaching dodgeball (e.g., planning and delivering sessions, techniques and tactics, skill development).
5. Working with groups (e.g., creating a positive learning environment).
 |
| Assessment Format | * Multiple-choice quizzes throughout content sections with learners needing a minimum of 60% to progress to next section.
* Summative written assessment which can be passed/failed and retaken.
* Learners must produce a coaching session plan which demonstrates their knowledge and understanding of the course assessment criteria, marked out of five (one mark per course assessment criteria).
 |
| Assessment Criteria | 1. Knowledge of equipment and spaces used in dodgeball.
2. Knowledge of dodgeball ruleset.
3. Knowledge of dodgeball-specific skills.
4. Ability to lead safe sessions.
5. Understanding of how to work with groups.
 |
| Learning Activities | * Asynchronous passages of text, images, multiple-choice quizzes, and pre-recorded videos.
* No synchronous content or interaction with tutor/other learners.
 |
| Duration | * Four hours (although the course is self-paced so may be less/more).
 |
| Cost | * Sixty pounds sterling (£60).
 |

Table 2. Online survey topic-based questions (section 4)

|  |
| --- |
| **Questions** |
| 1. In general, how would you describe your experiences (positive or negative) of completing British Dodgeball’s online Level 1 Award in Coaching Dodgeball? Please give reasons why.
2. Which aspects of the online Level 1 award do you believe were the most beneficial for your learning and development as a dodgeball coach? Please provide examples.
3. Which aspects of the online Level 1 award do you believe were the most challenging or hindered your ability to learn and develop as a dodgeball coach? Please provide relevant examples.
4. How have you been able to embed content and ideas from the online Level 1 award into your own coaching practice? Examples might include changes to practice design, coaching approach, and coaching behaviours.
5. Since completing the online Level 1 award, have your beliefs and attitudes towards coaching been changed in any way? Examples might include reflecting on your coaching philosophy and what you believe good coaching is.
6. How do you think your experiences of completing the Level 1 award online would compare to someone completing it face-to-face? Examples might include the impact on coaches’ learning and practice, networking opportunities, and logistical aspects.
7. Do you believe that the online Level 1 award has prepared you for the everyday realities of dodgeball coaching and the issues/challenges you may face? Please explain why.
8. In your opinion, how could British Dodgeball’s online Level 1 Award in Coaching Dodgeball be improved further to enhance dodgeball coach learning? Examples might include changes to course design, content, assessment, and additional learning opportunities.
9. Do you have any final comments/thoughts you would like to add which are related to British Dodgeball’s online Level 1 Award in Coaching Dodgeball and its impact on your learning and practice?
 |

Table 3. Participant demographic information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Individual-Level Variables** | ***N*** | **Percent** | **Mean** | **SD** |
| Age | 57 |  | 32.6 | 11.6 |
| Sex Male Female | 3621 | 63.236.8 |  |  |
| Country of Residence England Northern Ireland Scotland Wales | 51231 | 89.53.55.31.7 |  |  |
| Years Coaching Any Sports |  |  | 8.9 | 8.5 |
| Years Coaching Dodgeball |  |  | 2.5 | 3.1 |
| Current Dodgeball Coaching Age Group  Children (4-17 years) Adults (18+ years) Children and Adults (4-18+ years) NoneCurrent Dodgeball Coaching Context\*  Junior  School  University Adults Community Sports None | 429247403611 | 73.715.83.57.012.169.05.210.31.71.7 |  |  |
| Current Dodgeball Coaching League Structure\* Junior  Mixed University Regional National International OtherHolder of Non-Dodgeball Coaching Qualification Yes NoHighest Level of Non-Dodgeball Coaching Qualification Level 5 Level 3 Level 2 Level 1 None | 2914184318431425181814 | 37.618.21.310.45.23.923.475.424.63.58.731.631.624.6 |  |  |
| Dodgeball Coaching Sessions Taught (per week) |  |  | 1.9 | 2.1 |
| Dodgeball Fixture Engagement (per month)Previous Engagement with Online Coach Education Yes No | 2631 | 45.654.4 | 0.9 | 2.1 |

Note: \**N* > 57 due to participants being able to choose multiple response options to survey question