



Negative Focus, Self-Doubt, and Issues of ‘Tool Proficiency’: Beginner-Coaches’ Reflections on Reflective Practice

Authors’ contribution:

- A) conception and design of the study
- B) acquisition of data
- C) analysis and interpretation of data
- D) manuscript preparation
- E) obtaining funding

May Hamblin ^{*A-D}, Philippe Crisp ^{A,C,D} 

University of Chichester, Chichester, United Kingdom

Received: 27.10.2021
Accepted: 21.03.2022

***Correspondence:** Philippe Crisp, University of Chichester, Chichester, PO19 6PE, United Kingdom, phil.crisp@chi.ac.uk

Abstract

In the field of sports coaching education and learning, reflective practice is considered central to transforming experience and knowledge into expertise, and many governing bodies execute this through professional development and specific guidelines (Vallance, 2019). However, whilst the general consensus within academia and the vocational sector of coaching continue to espouse this approach, there is a lack of evidence to suggest how this is useful for beginner-coaches (defined as emerging-new, with less than three years of experience) as studies generally focus on expert coaches and oftentimes sit within the context of performance and/or elite sport. This study, therefore, aimed to explore the benefits and limitations of reflective practice, and to identify aspects of ideal learning for in-situ, practice-based context as perceived by beginner-coaches who operate more within recreational (although still competitive) sport fields. Situated within the UK context, the methodology comprised of semi-structured interviews conducted with six beginner-coaches. The findings demonstrated that whilst there were tangible benefits to the use of reflective practice (such as perceived additional competency and critical thinking), there were also limitations centred on time constraints, and an over-focus on negative emotions with a subsequent adverse impact on self-confidence and anxiety. The implications, including recommendations and thoughts for the future, are outlined within the paper.

Key words: Coach Learning, Coach Education, Emotional Reflection, Self-Confidence, Decision-Making

Introduction

Currently, over 13 million people in the UK receive coaching from 3 million coaches (UK Coaching, 2020). The significance of these numbers within the distinctive context of British sport culture, one that is inevitably linked to national consciousness, political sensibilities, and yet one that relies significantly on a voluntary workforce (North, 2007/2009; Taylor & Garrett, 2010; Parnell Millward & Spracklen, 2015), requires careful consideration when issues of professionalism, competency, and high-quality delivery and (potentially) supervision are brought to the fore. Indeed, contemporary branches of thought related to increasing the professionalism of sport coaching in the UK all acknowledge the necessity of revisiting training and any subsequent upskilling of coaches (Hertting, 2019; Crisp, 2020; Da Silva et al., 2020). Equally, in the context of governmental strategy, the importance of present-day coach education can be seen to be reflected in the following: First, the *UK Coaching Framework*, a document that

set out an ambition to create a world-leading coaching system by 2016 through developing highly skilled, accredited coaches (Sports Coach UK [scUK], 2008). And second, following this, a strategy was set out to create and maintain accessible coaching pathways to facilitate the recruitment, development, and retention of coaches by 2021 (UK Coaching, 2017).

The present coaching system in the UK is effectively based on a four-level approach that suggests coaches progress through stages of novice to expert (Berliner, 1994; Schempp McCullick, & Mason, 2006). The UK Coaching Certificate (UKCC), prompted by documents such as UK Sport's (2001) *The UK vision for coaching* strategy and initiated in 2002, endorsed coach education programmes across National Governing Bodies (NGBs) and created standards for these stages whereby in order to progress, coaches should gain appropriate NGB qualifications (Department for Culture, Media and Sport [DCMS], 2002; Norman, 2008). Coaches also progress through a variety of mediums including active engagement with the coaching context, continuing professional development (CPD), and higher education courses (Robinson, 2014; Mesquita, Ribeiro, Santos, & Morgan, 2014). Furthermore, scaffolding strategies may be employed to support coaches in their development such as using a mentor where assistance is withdrawn as a learner becomes more able to manage their selves independently (Jones & Thomas, 2015). Subsequently, learners can autonomously assess and analyse performances through self-reflection which is fundamental in becoming an effective coach (Dennen, 2004; Rainer, Cropley, & Adams, 2010).

There is, however, a need to fully identify how coaches can navigate the four-level stages of novice to competent to proficient to expert (Schempp et al., 2006). This is in the context of multiple needs, multi-systems approaches, and multiple (and historically) contingent facets and contexts that sport coaching operates in. Clearly defining the practice, competencies, and levels of knowledge and expertise that sport coaches 'should' possess /understand/and – or – be capable of applying in practice, mean that many 'new' coaches encounter difficulty straddling and operating across experiential divides, and conceptual edifices. Learning then, and attempting to identify what is distinct about sport coaching beyond just *peripheral participation*, is essential to developing professional and operational competencies (and beyond). This is especially so when we consider the necessary orientation to developing productive professional responses and practice for 'new' or 'beginner-coaches'.

Coach Learning

Learning can be described as an act whereby behavioural change, knowledge, and skills are acquired (Jarvis, 2004). Traditionally, coaching environments have been seen as a place where athlete learning occurs, however it is now recognised that coach development also takes place where they progress from novice ('beginner') to master (Cushion, 2006; McCarthy, 2020). The general consensus within coaching literature agrees that this happens through various sources of formal, informal, and non-formal learning (Coombs & Ahmed, 1974; Gilbert, Côté, & Mallet, 2010; Maclean & Lorimer, 2016).

Formal learning takes place within institutionalised, chronologically graded, and hierarchal structured educational systems by providing large-scale coach certification programmes developed by NGBs (Coombs & Ahmed, 1974; Nelson, Cushion, & Potrac, 2006). Programmes require coaches to demonstrate prerequisites outlined in admission guidelines before commencing a course that enforces standardised curricular (La Belle, 1982). Furthermore, it may enhance the perceived efficacy of the coach towards influencing the learning and performance of their athletes through delivery methods employed (Malete & Feltz, 2000; Hammond & Perry, 2005; McCullick, Belcher, & Schempp, 2005).

Non-formal learning is structured and systematic whereby it focuses on self-directed and non-assessed methods that occur outside the framework of the formal system (Coombs & Ahmed, 1974). This may include seminars, workshops, and coaching conferences to a particular sub-group focusing on specific areas of interest (Nelson et al., 2006; UK Coaching, 2018). Within informal learning, individuals accumulate knowledge and skills from everyday experiences that relate to the realities of everyday coaching practice (North, 2010). For example, working with others may provide support that is not influenced by the immediate coaching environment whereby the coach can have someone to ask questions, to share ideas, and improve various generic and sports specific skills (Gilbert & Trudel, 2001; North, 2010). Equally, observing others may be used as a benchmark against one's own coaching to confirm knowledge, or challenge one to improve (Lemyre, Trudel, & Durand-Bush, 2007; Erikson, Bruner, MacDonald, & Côté, 2008; North, 2010). Additionally, experience through 'doing' sports coaching is considered significant due to the limited time a coach spends within formal learning environments in comparison to time spent delivering in the field (Gilbert, Côté, & Mallett, 2006).

Moreover, incidental learning may occur whereby learning is unplanned or a by-product of planned learning (Marsick & Watkins, 2001; Crisp, 2018). In this way, coaches may further and unconsciously develop attributes

such as leadership and time-management in an experiential environment (Crisp, 2018). Furthermore, experiential learning advocates a philosophy underpinned by personal reflection and consequently the construction of knowledge (Schön, 1987; Shepherd, 2006). Thus, learning can be described as a process through which concepts are derived from experience whereby experiential learning is encouraged through reflective learning to develop knowledge and apply theory in practice (Kolb, 2014). It is noted however, that the accumulation of experiential learning does not guarantee competence (Douge & Hastie, 1993; Bell, 1997). In order for learning to be obtained, coaches must engage in processes that result in the growth of knowledge embedded within the experiences themselves, such as through reflective cycles of appreciation, action, and reappreciation (Schön 1987; Gilbert & Trudel, 2001; Hanton, Cropley, Neil, Mellalieu, & Miles (2007).

Reflective Practice

Reflection is seen to create a link between the application of professional knowledge and practice (Saylor, 1990; Moon, 2004). It orients a coach for further thought and action and thus enters into the realm of metacognition, in which one considers the relationship between thoughts and action (Kemmis, 1985). Metacognition is usually presented as a conscious and deliberate mental activity and it emphasises the way in which individuals comprehend how they learn from experience to improve their learning effectiveness (Martinez, 2006; Seel, 2011). Therefore, reflection can prepare the coach for action whereby they make sense of and think anew about already existing knowledge and experiences (Knowles, Gilbourne, Borrie, & Nevill, 2001; Taylor, Werthner, Culver, & Callary, 2015).

Encouraging reflection can provide the opportunity to explore good practice and identify areas for improvement with the formulation of ideas for change (Knowles et al., 2001). There are considered to be at least three types of reflection for coaches: reflection-in-action which involves critical thinking regarding something that occurs in the midst of activity, whereby the matter can be addressed in real-time; reflection-on-action which occurs after the activity and involves ‘thinking back’ on situations; and reflection-for-action which involves planning and preparation whereby a coach considers future actions (Schön, 1983; Knowles et al., 2001; Gilbert & Jackson, 2004; Farrell, 2013). Additionally, James and Clarke (1996) suggest that if coaches are to be truly reflective, they need to operate at various levels: a descriptive level where they simply state what they do by logging processes; an analytical level where they think about why they are doing certain things and relating this to knowledge and theory, as well as analysing values, beliefs, assumptions and ideas; and a critical level which is concerned with the constraints that social, political, and economic factors have on action and on others (Richardson & Maltby, 1995; Knowles, Tyler, Gilbourne, & Eubank, 2006).

Existing research particularly investigates the positive aspects of reflection where it has been assumed to be good for coach education (Cushion, 2016). A broad body of work highlights aspects such as enabling coaches to self-advance, how it acts as a catalyst for deeper thinking, links theory and practice, promotes learning, and enhances practice (Kidman, 2002; Taylor et al., 2015; Winfield, Williams, & Dixon, 2013). Studies also give attention to how reflection enhances a coach’s ability to implement change and provides a sense of empowerment through an increased awareness of how they operate (Kidman, 2002; Anderson, Knowles, & Gilbourne, 2004; Tonn & Harmission, 2004). Therefore, it is thought that coaches are then in a better position to make informed decisions about how practice is shaped and developed (Lyle, 2002; Cropley, Miles, & Peel, 2012).

More recently however, there has been greater research into its limitations to challenge this ‘taken-for-granted’ part of coaching where there is an acknowledgement of barriers such as: time restraints associated with coaching at unsociable hours where reflection is not carried out in-depth; concerns of negative focus which can reduce confidence; a lack of structure where coaches ‘mull-over’ experiences rather than reflect systematically; a lack of understanding of the reflective process leading to limited engagement; and that reflection may simply reinforce what is already known (Knowles et al., 2001; Knowles et al., 2006; Huntley, Cropley, Gilbourne, Sparkes, & Knowles, 2014; Cushion, 2006/2016; Vallance, 2019). Other research has also suggested that such approaches attempt to construct ways of thinking as a hegemonic indisputable discourse specifying what and how coaches think, causing reflective practice to become a means of normative control (Cotton, 2001; Fejes, 2011).

Within this existing research, there appears to be few studies on reflective practice and beginner-coaches, however when studies do involve beginner-coaches, more barriers seem apparent in the reflective process in comparison to the benefits (for example, Burt & Morgan 2014; Cushion, 2016; Huntley et al., 2014; Knowles, Borrie, & Telfer, 2005; Knowles et al., 2001; Knowles et al., 2006). Given this, it would be interesting to extend these findings by taking an inductive approach to critically analyse reflective practice further through exploring the extent to which it is a meaningful process, and to identify what this group perceive as ideal learning for in-situ, practice-based context (Lynch, 2000; Huntley et al., 2014).

‘Beginner-coaches’

Beginner-coaches are considered to have less than three years of experience and are learning the procedures of coaching (Schempp et al., 2006). NGBs often have an over-reliance on coaching as a voluntary process for beginners in which they lack basic professional support (Houlihan, 1991; UK Sport, 2001; Taylor & Garrett, 2010). Consequently, these coaches may face demands and struggles in coaching and reflection whereby they are unprepared due to an absence of training, lack of resources to implement educational processes, and face time-restrictions (Libman, 1998; McCallister, Blinde, & Kolenbrander, 2000; Wiersma & Sherman, 2005). In this way, beginners require substantial guidance but may spend limited time within environments that focus effort on developing their coaching which can raise questions on the benefits of coach education and reflective practice (Nash, 2003).

The realities faced by beginner-coaches within coach education and their use of reflective practice demonstrates the importance of understanding the true impact these methods have on learning. Accordingly, research exploring the learning experiences of beginners could be useful to investigate this and provide evidence to support coach learning in the future. Thus, this study will extend research into the effectiveness of reflective practice to understand the extent to which it is an effective tool for learning within the context of newly practising coaches. Therefore, this study is specifically concerned with (a) determining what beginner-coaches perceive the benefits of reflective practice to be, (b) investigating what beginner-coaches believe the limitations of reflective practice are, and (c) identifying what beginner – coaches see as ideal learning for in-situ, practice-based context.

Methodology

Given the study’s aims of investigating the benefits and limitations of reflective practice, and to identify ideal learning for in-situ, practice-based context as perceived by beginner-coaches, a constructivist view and interpretivist approach was taken as the study sought to explore individual beliefs, thoughts, and feelings regarding one’s environment which can be formed through interpretation (Blumer, 1969; Vrasidas, 2000). This approach is consistent with other approaches that have been taken in previous coach learning/best practice literature (for instance, Crisp, 2020) that has aimed to explore individual experiences of coach learning.

Given this, semi-structured interviews were regarded as the most appropriate method to explore the perceptions of beginner-coaches as more information could be revealed about the meanings attached to experiences (Sparkes & Smith, 2013). To fulfil the study’s aims, criteria for selection was based upon Schempp et al.’s (2006) proposal that hat beginner-coaches have no more than three years coaching experience. Moreover, based upon existing UK coach levels and expected competencies, the sample criteria insisted that participants had no more than a level two coaching qualification.

The sample consisted of three male coaches and three female coaches representing nine sports (football, $n = 5$; multi-sports, $n = 2$; swimming $n = 1$; gymnastics, $n = 1$). Participants ranged in age from 18 to 25 years ($M = 21$, $SD = 2.53$), with twenty months to three years of coaching experience ($M = 2.11$, $SD = 0.45$). Regarding the coaches’ respective coaching groups, all of them coach young people in various settings such as holiday clubs, schools, and sports teams. With respect to how many hours they coached, five participants were part-time, and one participant was full-time (via an apprenticeship for one year and who stayed on with the company upon completing their course). In terms of paid or unpaid employment, one participant was solely a volunteer, four participants did a mix of voluntary and paid coaching, and one participant (who did the apprenticeship) was paid. Three of the coaches hold no coaching qualifications, two hold a level one qualification, and one holds level two qualifications (note – formal coaching qualifications are not always needed to ‘coach’ in all contexts in the UK, ‘volunteer’ support, or working as ‘recreation assistants’ or holiday camp supervisors, for instance, do not necessarily need them).

Semi-structured interviews with all of the participants were conducted and recorded via Skype (complying with the then COVID-19 government guidelines regarding non-essential travel). The interview guide was divided into three sections based upon the framework from Falco, Bloom & Gilbert (2012): *introductory questions* (e.g. what made you get involved in coaching?) which aimed to make the participant feel at ease and to build rapport as this can increase the amount of information provided (Abbe & Brandon, 2014); *key questions* which focused on how coaches like to learn, in particular exploring reflective practice (e.g. why would you reflect on your coaching?); and *summary questions*, which were included to summarize the coaches’ overall thoughts on methods of coach learning (e.g. what is the most ideal way to learn as a coach and why?). Overall, the Interviews lasted between 36 and 45 minutes ($M = 38.5$, $SD = 5.39$).

Data Analysis

The interviews were transcribed verbatim, and thematic analysis was used to identify themes and to interpret their meaning and importance (Braun & Clarke, 2006). Initially, data was read repeatedly to ensure familiarity and key information was noted to highlight items of potential interest. This stage involved considering what the data mean through asking questions like: how does this participant make sense of their experiences? Systematic coding was then carried out by identifying and labelling elements of interest within the data, whilst ensuring that codes were relevant to answering the research question. For example, when a participant explained how another coach had aided their learning, key elements were coded (see Table 1 below). Once a code was generated, the data continued to be read until the next potentially relevant excerpt was identified. It was decided whether the already used code could be used or if a new code would be needed to capture that piece of data, and this process was continued throughout the entire data set. Furthermore, existing data codes were revisited and modified as the coding progressed to incorporate new material.

Table 1. Coding example

Interview Content	Codes
It helps having another opinion because I might be biased towards myself and they're not going to be. They'll tell me the truth and say what I need to do.	Other opinions prevent biasness Others are truthful
I enjoy it [reflective practice] to a certain extent. Like sometimes I'm like 'right ok I did this wrong' and I'll give myself constructive criticism and go away think about it, come back, and adapt the session. Then, other times I'm just like 'that was a horrible session I'm not gonna even analyse it because it was just embarrassing'.	Can enjoy reflection Gives themselves constructive criticism to adapt the session Doesn't want to reflect if a session went badly Feelings of embarrassment if lots went wrong
Um so reflecting can positively affect my coaching for the better so that I am able to change the session. Um, but there's also negatives because I think I think too much about things and then it really affects my confidence if I think about it too much	Reflection enables them to make positive change Reflection can cause overthinking Reflecting can affect confidence
It's difficult to reflect when you've done so many sessions in that day. You can try and think about it in the car, like one day I did three sessions, but I did so much that I couldn't even remember the first session when I was at the third session. How can I reflect on it if I don't even remember?	Difficult to reflect after lots of coaching in one day Forget what has happened

Coded data was reviewed to identify areas of similarity and overlap, which involved collapsing and clustering codes that appeared to share some unifying feature together, so that they described a coherent and meaningful pattern in the data. Consequently, a foundation of themes developed which were refined and sorted into broader themes related to the benefits and limitations of reflective practice. Next, these were further assessed to compare their integrity, to minimise researcher bias, to ensure distinction, and questions were posed to ensure relevance to the research aims was maintained. This phase involved reviewing the themes in relation to the coded data and entire dataset, checking themes against collated extracts of data, and considering whether the theme 'works' in relation to the data. In some cases, codes were discarded, relocated, split, or collapsed. Once a distinctive and coherent set of themes were created, data was re-read to determine whether the themes meaningfully captured the most important and relevant elements and tone of the entire dataset, in relation to the research question. When defining themes, it was ensured that they held a singular focus, were related but did not overlap, and directly addressed the research question to provide a coherent overall story about the data. Finally, the themes were subsequently ordered into two general themes, first, *Reflective practice benefits: the enhancement of critical thinking, and improved decision-making*, and second, *Reflective practice limitations: time constraints, negative focus, and negative emotions*.

Findings and Discussion

The two general themes which relate to the shared reflections and experiences of the beginner-coaches, are now presented in more detail. All findings are anonymised (with the beginner-coaches being given pseudonyms to differentiate between them, and quotes are used to illustrate the findings are discussed in the context of existing research in their respective areas.

Reflective practice benefits: the enhancement of critical thinking, and improved decision-making.

All participants discussed how reflective practice can be an effective method for learning through enhancing their critical thinking. They explained how reflecting encourages them to seek improvement by looking towards finer details, which can be seen in Luke's comments who described how reflection causes him to identify areas for improvement when he thinks everything went well:

“It's interesting because you think everything is perfect and then you reflect and realise what you could do better which then makes you improve things you wouldn't have thought of. It sort of like changes your perspective on how you would next go into delivering another session because you've picked the session apart”.

This can demonstrate how reflective practice encourages one to be critical. Consistent with previous research (e.g. Tilley, Marsh, Middlemiss, & Parrish, 2010) it is suggested that learners develop critical thinking through reflection as a means of developing context specific solutions. Moreover, a study by Mamede and Schmidt (2004) reported that reflection can cause one to critically review their initial assumptions of their performance which allows them to gain a broader understanding of an experience and develop more complex representations that lead to the generation of solutions.

Five participants believed that reflective practice enhances their decision-making through causing quicker, better, and correct decisions. Poppy noted how she believes her analysing skills have increased her self-trust which has aided her decision-making:

“I definitely trust myself more with making decisions. I know if I'm making the right decision or the wrong decision because you're able to analyse things better the more you reflect. If its's not the first time you've seen something, you can notice when things aren't really going to plan, and you just identify things quicker and do something about it. I also don't second guess myself so much because I feel like I'm making more informed decisions. Without reflecting, I'd probably just be making decisions with no real reasoning but reflection kind of makes everything make sense”.

This suggests that reflection puts coaches in a better position to make decisions which can be explained in work by Collins, Carson, and Collins (2016) who suggest that working without reflection can lead to making suboptimal decisions because decision-making processes are potentially weakened by a lack of depth in experience and reflection (Klein, 2014). Accordingly, it would appear necessary to develop metacognitive skills to guide reflective practice. Educational scholars agree that metacognitive skills are essential for the development of clinical reasoning whereby clinicians process information, collect cues, form an understanding of a situation, implement interventions, evaluate outcomes, and learn from the process. Consequently, this can be applied to sports coaches whereby as metacognitive skills develop, stimulus-response and memory storage are enhanced which can subsequently lead to improved decision-making (Kuiper & Pesut, 2004).

Five participants discussed how reflective practice has a positive impact on their sessions such as through improving the flow because of better organisational skills. Daniel mentioned how he plans each practice more effectively because of reflecting as he considers the structure more appropriately:

“My planning has been impacted by reflecting because I feel like I am able to make sure I have a theme going through and I am able to transition into different parts of the session better. Everything seems to run more cleanly and in good time. I don't have a 30-minute game at the end now and putting it into context I should've put this drill after this one cos it doesn't flow as nicely. Especially like if I was to do a session and I didn't get my point across clearly and people were confused because let's say I rushed my demonstration a bit, the next session is very much more broken down and I would allow more time to explain it step-by-step rather than throwing people into the deep end. So, the whole the session is impacted because I have a greater consideration about how to organise the delivery”.

This can show how reflection has encouraged him to improve his session through time-management and suitable progressions. Minimal empirical evidence exists on the direct impact reflective practice has on the organisation of sessions. However, these findings can be related to incidental learning whereby the coaches have developed skills

such as time-management in an experiential environment that was a by-product of planned learning (Marsick & Watkins, 2001; Crisp, 2018). In this way, learning has been derived from experience whereby experiential learning has been encouraged through reflection to develop knowledge (Kolb, 2014).

Reflective practice limitations: time constraints, negative focus, and negative emotions.

All of the participants identified some limitations of reflective practice in identifying some of its challenges. And all of the participants mentioned experiences of time restrictions by explaining how reflection may be rushed or dismissed if their time is limited. For example, Hannah explained:

“If I’m busy doing other things it often gets pushed aside, but it depends on if I’m busy. If I am busy, I focus on other things rather than the session. Obviously, we all work, or we are students so it’s giving up time out of your week. Trying to find the right moment to do it is hard especially with coaching in a voluntary role because you don’t always have spare time. I often have to reflect a lot faster than I’d like which has a negative impact because I can’t pay it the amount of attention it needs and it then won’t have as much of a big difference on future sessions”.

This illustrates how coaches may not dedicate much time to reflection which strengthens conclusions made in prior studies (e.g. Knowles et al., 2001; Knowles et al., 2006) where it is identified that reflection is often shallow due to time restraints of coaching at unsociable hours. Moreover, Merryfield (1993) discusses how teachers often find reflection time-consuming due to the large amounts of information generated by reflecting which could explain why the coaches push aside the task and prioritise other commitments.

Four participants discussed how they feel their reflection lacks depth as they reflect at a basic level or rush it. Findings suggest this can often be a consequence of having a negative focus. An example of this can be seen in Luke’s comments:

“Usually when I reflect, I’ll be like yeah that session could have been better, but it could have been worse. I don’t pay it my full attention and if it was terrible, I don’t really think about it. If I find there’s a mass amount of mistakes it can become difficult because there’s so much that needs to be changed and that can make me feel a little overwhelmed so I don’t look at it too much really or I will just do it quickly because I don’t want to face it”.

This implies that beginner-coaches have limited engagement with reflection which is supported in prior studies (e.g. Knowles et al., 2001; Cropley et al., 2012) which have identified that reflection is not carried out in-depth as beginners often ‘ponder-over’ experiences rather than reflect systematically. Furthermore, a study on health practitioners by Heath (1998) explains that as one becomes more skilled, their reflection is likely to increase such as by using models, checklists, or questioning. Consequently, this could suggest that the beginner-coaches’ reflection lacks depth because they lack the skill to add further dimensions. Furthermore, Lischetzke and Eid (2003) reported that individuals may react from negatives when undertaking self-reflection and are therefore less likely to engage in deep thought.

Moreover, five participants discussed how their negative focus causes unfavourable feelings. For example, Daniel explained that his mood can be adversely impacted (lowered) by focusing on negative trains of thought and perceived experiences, and his confidence lowers and he then doubts his ability:

“It really affects my confidence if I think about my sessions too much. You’re picking out everything that was wrong which can absolutely kill you and make you have self-doubt about if you’re doing it right and if you’re in the right job. It might make you not want to go to the next session cos you realise that you did so much wrong on the last one and it feels a bit embarrassing. It makes me upset to think my session was bad and the kids didn’t enjoy it. Sometimes I’ll just think that perhaps it would’ve been better to give them a ball and play a match instead of the session I ran because then at least they might have had more fun”.

This highlights the negative emotions coaches may experience when reflecting. In agreement with existing research (e.g. Knowles et al., 2001), there are concerns of a negative focus in suggesting it can reduce one’s confidence. Moreover, Yip (2006) discusses how when facing burdens in reflective practice, a worker may feel frustrated, anxious, and helpless which causes them to question their suitability to fulfil their job role. Furthermore, Heath (1998) noted that one is often very harsh in their own personal judgement which may lead to feelings of concern and guilt. This could be explained through neuroscientific evidence which shows negative stimuli cause greater neural processing in the brain than positive stimuli due to an ‘asymmetry’ in how negative and positive experiences are understood (Carretié, Mercado, Tapia, & Hinojosa, 2001). Psychologists describe this as negative bias whereby

humans focus on negative information more greatly than positive information because these experiences are more potent (Rozin & Royzman, 2001; Vaish, Grossmann & Woodward, 2008).

Less stimulus exposure is required to detect a negative than to detect a positive stimulus, indicating that this stimuli is processed faster and more efficiently in perceptual brain networks (Kuhbandner, Spitzer, & Pekrun, 2011; Kuhbandner, Spachholz, & Pastötter, 2016). At higher cognitive levels, negative stimuli are believed to hold greater informational value than positive stimuli, meaning they require more attention and cognitive processing. Hence, humans tend to dedicate more time looking at negative stimuli than at positive stimuli, perceive it as more convoluted than positive stimuli, and form more complex cognitive representations of negative than of positive stimuli (Fiske, 1980; Peeters & Czapinski, 1990).

A study on functional magnetic resonance imaging (fMRI) by Cunningham, Raye, and Johnson (2004) identified candidate brain regions that may be involved in the negative bias. The study found that an area of the right inferior frontal/insular cortex was related with implicit and explicit valence-based evaluations of stimuli, showing greater activity to negative stimuli than to positive stimuli. Furthermore, the amygdala; part of the brain that is involved in the processing of emotional intensity and drives the 'fight or flight' response, is found to appear more activated when exposed to negative than positive stimuli (Small et al., 2003; Cunningham et al., 2004). Both of these findings can demonstrate why negative stimuli are rated as more emotionally intense than positive stimuli and can, perhaps, indicate why the beginner-coaches mentioned having a predominately negative focus when engaging with reflective practice (Lewis, Critchley, Rotshtsein, & Dolan, 2007).

Conclusion

This study sought to (a) explore the benefits of reflective practice perceived by beginner – coaches, (b) investigate the limitations of reflective practice recognised by beginner-coaches, and (c) identify what beginner-coaches see as ideal learning for in-situ, practice-based context. The findings of this study demonstrated that beginner-coaches find engagement with reflective practice useful as a tool for learning because it enhances their critical thinking, improves their decision-making, and enables them to develop the sessions they deliver. However, limitations and barriers were evident as coaches face time restrictions, lack depth in their reflection, and experience negative emotions. These findings run parallel with existing bodies of research in highlighting the positive impact reflection has in developing knowledge, and extends understanding related to the limitations of reflection for beginner-coaches, of which less literature exists.

The findings of this study are important because they provide evidence pertaining to ways that could, potentially, expedite and facilitate some of the more effective learning strategies related to reflective practice within coach education for beginner-coaches in the UK and elsewhere. Understanding the pressures, and negative emotions that can arise from reflective practice, is perhaps a first step to valuing potential pitfalls inherent in leaving beginner-coaches to reflect and ruminate on their practice.

Although the present study offers several new insights related to the use of reflective practice by beginner-coaches, it is also necessary to acknowledge several study limitations. Firstly, given that this study used a small sample size, it is possible that the results cannot be generalised to the wider population (Faber & Fonseca, 2014). Furthermore, as interviews were used, it is worth recognising that participants may have found it challenging to effectively recall the events (Dugdale, Eklund, & Gordon, 2002). Lastly, we need to acknowledge that there were some minor differences between the participants in terms of experience and age. However, the original criterion used was broadly consistent, and the mean ages, the comparable range and scope of their experience, and the similarities in their coaching contexts, all strongly suggest that inferring any possible interactions between them (in such a small sample) are problematic. Perhaps, it could be noted that the older participants viewed time constraints as a more prominent and difficult barrier to reflective practice, due to their demands and responsibilities both within and outside of coaching. Therefore, it is possible that factors such as age contribute to the degree in which some benefits and limitations of reflective practice present themselves. However, as a qualitative piece of research fundamentally based on an interpretivist position, we were wary of extending and explaining any possible interaction effect(s) between independent variables. We do, however, support the possibility of further research focusing more on this area. As part of this, future research could, perhaps, use a larger sample size and also use alternative data collection methods to mitigate for memory biases (such as diaries as these can allow data to be collected closer to the time of an event, and potentially offer a more accurate account of thoughts, feelings, and changes in emotion) alongside interviews (Gagne, 2003; McFee, 2009).

Despite some of these limitations, the research is helpful in that it provides evidence for suitable ways to guide the learning of beginner-coaches that can be used to support coach education. It also outlines and follows a critical approach for the use of reflective practice, and therefore challenges the assumption that it is an entirely positive aspect within coach education. All told, this study has supported the use of reflective practice for beginner-coaches through understanding its benefits, but it is also evident that its barriers and limitations need to be considered to achieve a well-rounded engagement with it. All things considered then, we posit that reflective practice is a meaningful process for beginner-coaches and should therefore remain a central dimension of education within sport but, crucially, there are caveats in that truly understanding limitations (such as negative thoughts and impact) must be taken into account.

Indeed, perhaps the more general gist of the findings is that reflection is a tool, but beginner-coaches may need additional help and support to become properly ‘proficient’ in its use and application. Here, it seems apparent that more support structures may be required for the development of beginner-coaches and their use of reflection. A failure to provide this is unlikely to allow coaches to explore and refine their practice, and to access and develop knowledge. In this way, guidance should be enhanced to maximise their learning and more appropriate education on the approaches to reflective practice for this group (beginner-coaches) may be required in the future.

Ethics approval and informed consent

Ethical approval was given by the authors’ institution, and written consent (with sufficient information so that they were able to reach a fully informed decision regarding their participation) was gained before the participants took part and interviews commenced (Saunders, Lewis, & Thornhill, 2012).

Competing interests

There are no competing interests to declare.

Funding

Not applicable.

References

- Abbe, A., & Brandon, S. E. (2014). Building and maintaining rapport in investigative interviews. *Police practice and research, 15*(3), 207-220. <https://doi.org/10.1080/15614263.2013.827835>
- Anderson, A., Knowles, Z., & Gilbourne, D. (2004). Reflective practice for applied sport psychologists: A review of concepts, models, practical implications and thought on dissemination. *The Sport Psychologist, 18*(2), 188-201. <https://doi.org/10.1123/tsp.18.2.188>
- Bell, M. (1997). The development of expertise. *Journal of Physical Education, Recreation & Dance, 68*(2), 34-38. <https://doi.org/10.1080/07303084.1997.10604893>
- Berliner, D. C. (1994). Expertise: The wonder of exemplary performances. In J. Mangieri & C. C. Block (Eds.), *Creating powerful thinking in teachers and students* (pp. 161-186). Texas: Holt Rinehart & Winston.
- Blumer, H. (1969). *Symbolic interaction, perspective and method*. Englewood Cliffs: Prentice-Hall.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101. doi: 10.1191/1478088706qp063oa
- Burt, E., & Morgan, P. (2014). Barriers to systematic reflective practice as perceived by UKCC Level 1 and Level 2 qualified Rugby Union coaches. *Reflective practice, 15*(4), 468-480. doi: 10.1080/14623943.2014.900016
- Carretié, L., Mercado, F., Tapia, M., & Hinojosa, J. A. (2001). Emotion, attention, and the ‘negativity bias’, studied through event-related potentials. *International journal of psychophysiology, 41*(1), 75-85. doi: 10.1016/s0167-8760-(00)00195-1.
- Collins, L., Carson, H. J., & Collins, D. (2016). Metacognition and professional judgment and decision making in coaching: Importance, application and evaluation. *International Sport Coaching Journal, 3*(3), 355-361. doi: 10.1123/iscj.2016-0037
- Coombs, P. H., & Ahmed, M. (1974). *Attacking Rural Poverty: How Nonformal Education Can Help*. Essex: International Council for Educational Development.
- Cotton, A. H. (2001). Private thoughts in public spheres: Issues in reflection and reflective practices in nursing. *Journal of Advanced Nursing, 36*(4), 512–519. doi: 10.1046/j.1365-2648.2001.02003.x.

- Crisp, P. (2018). Coaching placements and incidental learning—how reflection and experiential learning can help bridge the industry skills gap. *Journal of Learning Development in Higher Education*, (13), 1-28.
- Crisp, P. (2020) Leadership, Bridging, and Group-Game Engineering: Guidelines for Community Sport Coaches. *International Sport Coaching Journal*, 7(2), 229-238. doi: 10.1123/iscj.2020-0005
- Cropley, B., Miles, A., & Peel, J. (2012). *Value of, Issues, and Developments within Sports Coaching*. Retrieved from <https://www.ukcoaching.org>
- Cunningham, W. A., Raye, C. L., & Johnson, M. K. (2004). Implicit and explicit evaluation: fMRI correlates of valence, emotional intensity, and control in the processing of attitudes. *Journal of cognitive neuroscience*, 16(10), 1717-1729. doi: 10.1162/0898929042947919
- Cushion, C. J. (2006). Mentoring: Harnessing the power of experience. In R. L. Jones (Ed.), *The sports coach as educator: Re-conceptualising sports coaching* (pp. 146-162). London: Routledge.
- Cushion, C. J. (2016). Reflection and reflective practice discourses in coaching: A critical analysis. *Sport, education and society*, 23(1), 82-94. <https://doi.org/10.1080/13573322.2016.1142961>
- Da Silva, E. J. D., Evans, M. B., Lefebvre, J. S., Allan, V., Côté, J., & Palmeira, A. (2020). A systematic review of intrapersonal coach development programs: Examining the development and evaluation of programs to elicit coach reflection. *International Journal of Sports Science & Coaching*, 15(5-6), 818-837. doi: 10.1260/174795406776338526
- Dennen, V. P. (2004). Cognitive Apprenticeship in Educational Practice: Research on Scaffolding, Modelling, Mentoring, and Coaching as Instructional Strategies. In D. H. Jonassen (Ed.), *Handbook of research on educational communications and technology* (p. 813–828). New Jersey: Lawrence Erlbaum Associates Publishers.
- Department for Culture, Media and Sport. (DCMS). (2002). *The Coaching Task Force – Final Report*. London: Department for Culture Media and Sport.
- Douge, B., & Hastie, P. (1993). Coach effectiveness. *Sport Science Review*, 2(2), 14-29.
- Dugdale, J. R., Eklund, R. C., & Gordon, S. (2002). Expected and unexpected stressors 10 in major international competition: Appraisal, coping, and performance. *The Sport Psychologist*, 16(1), 20-33. <https://doi.org/10.1123/tsp.16.1.20>
- Erickson, K., Bruner, M. W., MacDonald, D. J., & Côté, J. (2008). Gaining insight into actual and preferred sources of coaching knowledge. *International Journal of Sports Science & Coaching*, 3(4), 527-538. <https://doi.org/10.1260/174795408787186468>
- Faber, J., & Fonseca, L. M. (2014). How sample size influences research outcomes. *Dental press journal of orthodontics*, 19(4), 27-29. doi: 10.1590/2176-9451.19.4.027-029.ebo
- Falcao, R. W., Bloom, A. G., & Gilbert, D. W. (2012). Coaches' perceptions of a coach training program designed to promote youth developmental outcomes. *Journal of Applied Sport Psychology*, 24(4), 429-444. doi: 10.1080/10413200.2012.692452
- Farrell, T. S. (2013). Reflecting on ESL teacher expertise: a case study. *System*, 41(4), 1070–1082. <https://doi.org/10.1016/j.system.2013.10.014>
- Fejes, A. (2011). Confession, in-service training and reflective practices. *British Educational Research Journal*, 37(5), 797–812. <https://doi.org/10.1080/01411926.2010.500371>
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of personality and Social Psychology*, 38(6), 889. doi:
- Gagne, M. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of applied sport psychology*, 15(4), 372-390. <https://doi.org/10.1080/714044203>
- Gilbert, W. D., & Jackson, C. (2004). In search of an effective coaching style. *Olympic Coach*, 16(4), 16-17.
- Gilbert, W. D., & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of teaching in physical education*, 21(1), 16-34. <https://doi.org/10.1123/jtpe.21.1.16>
- Gilbert, W., Côté, J., & Mallett, C. (2006). Developmental paths and activities of successful sport coaches. *International Journal of Sports Science & Coaching*, 1(1), 69-76. <https://doi.org/10.1260/174795406776338526>
- Gilbert, W., Côté, J., & Mallett, C. (2010). Development paths and activities of successful sport coaches. *Journal of Soccer*, 55(3), 10-13. doi: 10.1260/174795406776338526
- Hammond, J., & Perry, J. (2005). A multi-dimensional assessment of soccer coaching course effectiveness. *Ergonomics*, 48(11-14), 1698-1710. <https://doi.org/10.1080/00140130500101213>
- Hanton, S., Cropley, B., Neil, R., Mellalieu, S. D., & Miles, A. (2007). Experience in sport and its relationship with competitive anxiety. *International Journal of Sport and Exercise Psychology*, 5(1), 28-53. <http://dx.doi.org/10.1080/1612197X.2008.9671811>
- Heath, H. (1998). Keeping a reflective practice diary: a practical guide. *Nurse education today*, 18(7), 592-598.

- Hertting, K. (2019). “More Practice-based Courses and Not Just a Load of Papers to Read”: Youth Soccer Coaches Reflections on Coach Education Programs in Sweden. *Physical Culture and Sport. Studies and Research*, 83, 39-49. doi: 10.2478/pcssr-2019-0019
- Houlihan, B. (1991). *The government and politics of sport*. London: Routledge.
- Huntley, E., Cromptley, B., Gilbourne, D., Sparkes, A., & Knowles, Z. (2014). Reflecting back and forwards: An evaluation of peer-reviewed reflective practice research in sport. *Reflective practice*, 15(6), 863-876. <https://doi.org/10.1080/14623943.2014.969695>
- James, C. R., & Clarke, B. A. (1996). Reflective practice in nursing: issues and implications for nurse education. *Nurse Education Today*, 14(2), 82-90. doi: 10.1016/0260-6917(94)90109-0
- Jarvis, P. (2004). *Adult education and lifelong learning: Theory and practice*. London: Routledge.
- Jones, R. L., & Thomas, G. L. (2015). Coaching as ‘scaffolded’ practice: Further insights into sport pedagogy. *Sports Coaching Review*, 4(2), 65-79. doi: 10.1080/21640629.2016.1157321
- Kemmis, S. (1985). Action research and the politics of reflection. In D. Boud, R. Keogh, & D. Walker (Eds.), *Reflection: Turning experience into learning*, (pp. 139-163). Abingdon: Routledge.
- Kidman, L. (2002). *Developing decision makers: An empowerment approach to coaching*. Christchurch: Innovation Print Communication.
- Klein, G. A. (2014). *Sources of power: How people make decisions*. Cambridge: MIT Press.
- Knowles, Z., Borrie, A., & Telfer, H. (2005). Towards the reflective sports coach: Issues of context, education and application. *Ergonomics*, 48(11-14), 1711-1720. doi: 10.1080/00140130500101288
- Knowles, Z., Gilbourne, D., Borrie, A., & Nevill, A. (2001). Developing the reflective sports coach: A study exploring the processes of reflective practice within a higher education coaching programme. *Reflective practice*, 2(2), 185-207. <https://doi.org/10.1080/14623940123820>
- Knowles, Z., Tyler, G., Gilbourne, D., & Eubank, M. (2006). Reflecting on reflection: exploring the practice of sports coaching graduates. *Reflective Practice*, 7(2), 163-179. <https://doi.org/10.1080/14623940600688423>
- Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. New Jersey: FT Press.
- Kuhbandner, C., Spachtholz, P., & Pastötter, B. (2016). Bad things come easier to the mind but harder to the body: Evidence from brain oscillations. *Cognitive, Affective, & Behavioral Neuroscience*, 16(4), 768-778. <https://doi.org/10.3758/s13415-016-0429-0>
- Kuhbandner, C., Spitzer, B., & Pekrun, R. (2011). Read-out of emotional information from iconic memory: The longevity of threatening stimuli. *Psychological Science*, 22(5), 695-700. doi: 10.1177/0956797611406445
- Kuiper, R. A., & Pesut, D. J. (2004). Promoting cognitive and metacognitive reflective reasoning skills in nursing practice: self-regulated learning theory. *Journal of advanced nursing*, 45(4), 381-391. doi: 10.1046/j.1365-2648.2003.02921.x
- La Belle, T. J. (1982). Formal, nonformal and informal education: A holistic perspective on lifelong learning. *International review of education*, 28(2), 159-175. <https://doi.org/10.1007/BF00598444>
- Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *The sport psychologist*, 21(2), 191-209. doi: 10.1123/tsp.21.2.191
- Lewis, P. A., Critchley, H. D., Rotshtein, P., & Dolan, R. J. (2007). Neural correlates of processing valence and arousal in affective words. *Cerebral cortex*, 17(3), 742-748. doi: 10.1093/cercor/bhk024.
- Libman, S. (1998). Adult participation in youth sports: A developmental perspective. *Child and Adolescent Psychiatric Clinics*, 7(4), 725-744. doi: 10.1016/S1056-4993(18)30208-6
- Lischetzke, T., & Eid, M. (2003). Is attention to feelings beneficial or detrimental to affective well-being? Mood regulation as a moderator variable. *Emotion*, 3(4), 361. doi: 10.1037/1528-3542.3.4.361.
- Lyle, J. (2002). *Sports coaching concepts: A framework for coaches' behaviour*. London: Routledge.
- Lynch, M. (2000). Against reflexivity as an academic virtue and source of privileged knowledge. *Theory, Culture and Society*, 17(3), 26-54. <https://doi.org/10.1177/02632760022051202>
- Maclean, J., & Lorimer, R. (2016). Are coach education programmes the most effective method for coach development? *International Journal of Coaching Science*, 10(2), 71-88.
- Malete, L., & Feltz, D. L. (2000). The effect of a coaching education program on coaching efficacy. *The Sport Psychologist*, 14(4), 410-417. doi: 10.1123/tsp.14.4.410
- Mamede, S., & Schmidt, H. G. (2004). The structure of reflective practice in medicine. *Medical education*, 38(12), 1302-1308. doi: 10.1111/j.1365-2929.2004.01917.x.
- Marsick, V. J., & Watkins, K. E. (2001). Informal and incidental learning. *New directions for adult and continuing education*, (89), 25-34. <https://doi.org/10.1002/ace.5>

- Martinez, M. E. (2006). What is metacognition? *Phi delta kappan*, 87(9), 696-699. <https://doi.org/10.1177/003172170608700916>
- McCallister, S. G., Blinde, E. M., & Kolenbrander, B. (2000). Problematic aspects of the role of youth sport coach. *International Sports Journal*, 4(1), 9-26.
- McCarthy, E. (2020). Understanding how World-Class Competitive Swimming Coaches learn to coach. *Journal of Swimming Research*, 27(2) 49-52.
- McCullick, B. A., Belcher, D., & Schempp, P. G. (2005). What works in coaching and sport instructor certification programs? The participants' view. *Physical Education and Sport Pedagogy*, 10(2), 121-137. doi: 10.1080/17408980500105015
- McFee, G. (2009). The epistemology of qualitative research into sport: ethical and erotetic? *Qualitative Research in Sport and Exercise*, 1(3), 297-311. <https://doi.org/10.1080/19398440903192357>
- Merryfield, M. M. (1993). Reflective practice in global education strategies for teacher educators. *Theory into practice*, 32(1), 27-32. <http://www.jstor.org/stable/1476479>
- Mesquita, I., Ribeiro, J., Santos, S., & Morgan, K. (2014). Coach learning and coach education: Portuguese expert coaches' perspective. *The Sport Psychologist*, 28(2), 124-136. doi: 10.1123/tsp.2011-0117
- Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. London: Routledge.
- Nash, C. (2003). Development of a mentoring system within coaching practice. *Journal of Hospitality, leisure, sport and tourism education*, 2(2), 39-47. doi: 10.3794/johlste.22.37
- Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, nonformal and informal coach learning: A holistic conceptualisation. *International Journal of Sports Science & Coaching*, 1(3), 247-259. <https://doi.org/10.1260/174795406778604627>
- Norman, L. (2008). The UK coaching system is failing women coaches. *International Journal of Sports Science & Coaching*, 3(4), 447-476. doi: 10.1260/174795408787186431
- North, J. (2007). *Increasing Participation in Sport: the role of sports coaches*. Leeds: Sports Coach UK.
- North, J. (2009). *The coaching workforce 2009–2016*. Leeds: Sports Coach UK.
- North, J. (2010). Using 'coach developers' to facilitate coach learning and development: Qualitative evidence from the UK. *International Journal of Sports Science & Coaching*, 5(2), 239-256. <https://doi.org/10.1260/1747-9541.5.2.239>
- Parnell, D., Millward, P., & Spracklen, K. (2015). Sport and austerity in the UK: an insight into liverpool 2014. *Journal of policy research in tourism, leisure and events*, 7 (2), 200–2013. doi:10.1080/19407963.2014.968309
- Peeters, G., & Czapinski, J. (1990). Positive-negative asymmetry in evaluations: The distinction between affective and informational negativity effects. *European review of social psychology*, 1(1), 33-60. <https://doi.org/10.1080/14792779108401856>
- Rainer, P., Cropley, B., & Adams, D. (2010). Learning through reflection. *Coaching Edge*, 18, 12-13.
- Richardson, G., & Maltby, H. (1995). Reflection on practice: Enhancing student learning. *Journal of advanced nursing*, 22(2), 235-242. doi: 10.1046/j.1365-2648.1995.22020235.x.
- Robinson, P. E. (2014). *Foundations of sports coaching*. London: Routledge.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and social psychology review*, 5(4), 296-320. https://doi.org/10.1207/S15327957PSPR0504_2
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for Business Students*. Essex: Pearson Education Limited.
- Saylor, C. R. (1990). Reflection and professional education: Art, science, and competency. *Nurse educator*, 15(2), 8-11. doi: 10.1097/00006223-199003000-00006
- Schempp, P. G., McCullick, B., & Mason, I. S. (2006). The development of expert coaching. In R. L. Jones (Ed.), *The sports coach as educator: Re-conceptualising sports coaching* (pp. 145–161). London: Routledge.
- scUK. (2008). *The UK Coaching Framework: Executive Summary*. Leeds: Sports Coach UK.
- Schön, D. A. (1983). *The reflective practitioner: how professionals think in action*. New York: Basic Books, Inc.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Seel, N. M. (2011). *Encyclopaedia of the Sciences of Learning*. Berlin: Springer Science & Business Media.
- Shepherd, M. (2006). Using a learning journal to improve professional practice: a journey of personal and professional self-discovery. *Reflective Practice*, 7(3), 333–348.
- Small, D. M., Gregory, M. D., Mak, Y. E., Gitelman, D., Mesulam, M. M., & Parrish, T. (2003). Dissociation of neural representation of intensity and affective valuation in human gustation. *Neuron*, 39(4), 701-711. <https://doi.org/10.1080/14623940600837517>
- Sparkes, A. C., & Smith, B. (2013). *Qualitative research methods in sport, exercise and health: From process to product*. London: Routledge.

- Taylor, B. & Garrett, D. (2010) The professionalisation of sports coaching: definitions, challenges and critique. In Cushion, C. & Lyle, J. (Eds) *Sports Coaching: Professionalisation and Practice*. Edinburgh: Churchill Livingstone Elsevier.
- Taylor, S., Werthner, P., Culver, D., & Callary, B. (2015). The importance of reflection for coaches in parasport. *Reflective practice*, 16(2), 269-284. doi: 10.1080/14623943.2015.1023274
- Tilley, F., Marsh, C., Middlemiss, L., & Parrish, B. (2010). *Critical and reflective thinking: The ability to reflect critically on sustainability challenges*. Leeds: University of Leeds.
- Tonn, E., & Harmison, R. (2004). Thrown to the wolves: A student's account of her practicum experience. *The Sport Psychologist*, 18(3), 324-340. doi:10.1123/tsp.18.3.324
- UK Coaching. (2017). *Our Strategy: 2017 – 2021*. Leeds: UK Coaching.
- UK Coaching. (2018). *So What is Developmentally Appropriate Sport?* Retrieved from <https://www.ukcoaching.org/resources/topics/expert-opinions/so-what-is-developmentally-appropriate-sport>
- UK Coaching. (2020). *Our Strategy: 2019 – 2020*. Leeds: UK Coaching.
- UK Sport. (2001). *The UK vision for coaching*. London: UK Sport.
- Vaish, A., Grossmann, T., & Woodward, A. (2008). Not all emotions are created equal: the negativity bias in social-emotional development. *Psychological bulletin*, 134(3), 383. doi: 10.1037/0033-2909.134.3.383
- Vallance, P. (2019). A Critical Review of the Role of Reflective Practice in the Development of Sport Coaches. *Applied Coaching Research Journal*, 4(1), 24-33.
- Vrasidas, C. (2000). Constructivism versus objectivism: Implications for interaction, course design, and evaluation in distance education. *International journal of educational telecommunications*, 6(4), 339-362.
- Wiersma, L. D., & Sherman, C. P. (2005). Volunteer youth sport coaches' perspectives of coaching education/certification and parental codes of conduct. *Research quarterly for exercise and sport*, 76(3), 324-338. doi: 10.1080/02701367.2005.10599303
- Winfield, J., Williams, J., & Dixon, M. (2013). The use of reflective practice to support mentoring of elite equestrian coaches. *International Journal of Evidence Based Coaching & Mentoring*, 11(1), 162-178.
- Yip, K. S. (2006). Self-reflection in reflective practice: A note of caution. *British Journal of Social Work*, 36(5), 777-788. <https://doi.org/10.1093/bjsw/bch323>