Running head: Examining diverse vignette formats to translate knowledge to elite S&C coaches

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12   Using written, audio and video vignettes to translate knowledge to elite strength and

13   conditioning coaches

Examining diverse vignette formats to translate knowledge to elite S&C coaches

1   Abstract

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3   Research has shown that vignettes are useful in disseminating complex and applied

4   information to practitioners (e.g., Douglas & Carless, 2008) with research mainly utilising

5   written and audio vignettes to disseminate good practice (e.g., Perrier, Smith, & Latimer-

6   Cheung, 2015; Smith, Tomasone, Latimer-Cheung, & Martin-Ginis, 2015). The current study

7   examined the utility of a research-based vignette, presented in different formats (written,

8   audio, video), to disseminate information to elite strength and conditioning (S&C) coaches. A

9   single vignette was developed in three formats: a written, an audio, and a video vignette. The

10   vignette involved an experienced S&C coach as the main character, and the plot outlined how

11   this S&C coach aimed to learn more about effective coaching. Nineteen elite S&C coaches

12   reflected on the utility of different vignette formats. Data were analysed using a thematic

13   analysis (Braun, Clarke, & Weate, 2017). Overall, the results suggest that vignettes are useful

14   in translating knowledge and encourage action, regardless of which format is used.

15   Furthermore, the S&C coaches reported a preference for the video format, due to the video's

16   ability to communicate emotional, verbal and non-verbal behaviours. Practically, the vignette

17   prompted the S&C coaches to reflect on areas such as coaching philosophy and values

18   resulting in initial changes in their coaching practice.

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20   Keywords: coach development, knowledge translation, narrative learning

Introduction

Knowledge translation process is about bridging the gap between what is known from research, knowledge synthesis, and the successful implementation of this knowledge by the practitioner (Canadian Institutes of Health Research, 2013). Thus, knowledge translation aims to close the 'know-do' gap between research and practice (Graham & Tetroe, 2007). One crucial component of the knowledge translation process is knowledge dissemination. As Smith et al. (2015) have suggested, knowledge dissemination asks how knowledge might be effectively disseminated, to whom, by which messengers, and to what effect? In answering these questions, it is therefore imperative to consider how research-based knowledge can be disseminated in accessible, credible, and meaningful ways, so that practitioners can fully engage with research findings (Grimshaw, Eccles, Lavis, Hill, & Squires, 2012).

Research consistently highlights that the application of disseminated research-based knowledge into practice can often be a slow and haphazard process (i.e., Reade, Rodgers, & Spriggs, 2008). Practitioners have to spend a considerable amount of time processing or synthesising research-based knowledge, which reduces timely application aimed at effecting practice (Graham et al., 2006). Within the sport sciences, authors such as Reade, Rogers, and Hall (2008) have commented on the debate surrounding the know-do gap, suggesting that while sport science research can make an important contribution to high performance sport, disseminating such research through sport science publications were ranked low as a likely source of information among high-performance coaches. In agreement with these findings, Pope et al. (2015) identified barriers that included the time required to read academic outputs, the ability to interpret the research results, and the lack of direct access (which is restricted to coaches working in the higher education environment). Pope et al., (2015) also reported that coaches identified the academic style and format of academic written work as not being 'user

1 friendly' or easy to understand and learn from and were more likely to learn when knowledge

2 is disseminated through verbal communication such as conferences and discussions (Reade et

3 al., 2008).

4   These findings suggest that coaches might prefer more relevant, multi-sensory ways

5 to learn (including audio and visual methods) presented through online multimedia

6 instruction (Langdon, Harris, Burdette III, & Rothberger, 2015), video (Murray, 2011), or

7 face to face mentorship interactions (Reade, Rodgers, & Spriggs, 2008). Even such

8 approaches are often criticised as learning is reduced to a simple, dominant instructional

9 paradigm, where learning is linear and instruction-centred (Paquette & Trudel, 2016). Indeed,

10 when S&C coach developers, such as National Strength and Conditioning Association

11 (NSCA) and the United Kingdom Strength and Conditioning Association (UKSCA), teach

12 standardised competency-based curriculum within the instructional paradigm, research

13 suggests that such teaching strategies have limited impact on coaches' development in

14 applying psychosocial coaching behaviours (Paquette & Trudel, 2018). The research supports

15 the need to more fully consider alternative learning theories and more creative methods of

16 translating research findings into accessible and user-friendly resources (e.g., narrative

17 learning; Szedlak, Callary, & Smith, 2018).

18   In line with the International Sport Coaching Framework (International Council for

19 Coaching Excellence, Association of Summer Olympic International Federations, & Leeds

20 Metropolitan University, 2013), which suggests that coaches should commit to lifelong

21 learning and focus on applying professional, inter and intrapersonal knowledge (i.e.,

22 knowledge to action), narrative learning theory might provide a novel approach to encourage

23 the development of coaching practice. Narrative learning theory is a psychosocial approach

24 that focuses on stories, which allow us to make sense of the complexity of life and shape

1   what becomes experiences (Frank, 2010). Narrative learning theory suggests that human

2   beings are meaning makers who use narratives to interpret, direct and configure life

3   experiences (Brockmeier, 2012). Frank (2010) suggests that narratives perform, which is

4   contrary to other ways of dissemination that simply imitate or represent thought, emotions or

5   behaviour such as instructional centred academic writing. Narratives can guide our attention,

6   affect how we behave and think, and encourage imagination (i.e., what we imagine could be

7   possible; Brockmeier, 2012). In addition, Smith (2010) further elaborated that narrative

8   inquiry (i.e., studying people's stories as they occur over time) reveals the temporal,

9   emotional and contextual qualities of lives and relationship, and as such is suitable to explore

10   the relationship between an S&C coach and an athlete. Thus, the use of stories should be

11   considered to motivate coaches to engage in narrative learning, meaning knowledge is

12   translated into action (Andrews, 2014; Brockmeier, 2009; Szedlak, Callary, et al., 2018).

13   One suggestion for creative dissemination that could encourage narrative learning is

14   the use of research-based vignettes, which are often referred to within academic methods as

15   stories that are hypothetical or fictional scenarios to which readers can reflect and respond

16   (Braun & Clarke, 2013). The strengths of using vignettes for research dissemination have

17   been well cited in the sport science literature. Vignettes can communicate complex

18   knowledge in a more straightforward and easy to apply way to a variety of audiences,

19   including technical coaches (Scott, Hartling, O'Leary, Archibald, & Klassen, 2012), S&C

20   coaches (Gearity & Metzger, 2017) and athletes (Szedlak, Smith, Day, & Callary, 2018). In

21   addition, the storied form of vignettes allows them to aid memory and information retrieval

22   by arousing imagination and allowing practitioners to identify with the characters and

23   scenario presented (Brockmeier, 2009). Thus, vignettes can initiate narrative imagination,

24   prompting the practitioner to re-evaluate and reflect on their own experiences in comparison

1 to the vignette scenario (Frank, 2010). After engaging with the story, it has been suggested

2 that practitioners may be prompted to recall relevant experiences and engage in an internal

3 dialogue and discussion (Moon, 2007; Potrac, Jones, Purdy, Nelson, & Marshall, 2013). As a

4 consequence of this reflection, the practitioner can be encouraged to analyse the

5 meaningfulness and relevance of the situation and imagine what change is possible and how

6 (Smith et al., 2015). Taken together, these findings suggest that vignettes hold much potential

7 as a coach development tool.

8   Whilst vignettes have predominantly been used to disseminate information in areas

9 such as health education (i.e., Foulon & Ginis, 2013), and business (i.e., Peek, Peek, &

10 Horras, 1994), more recently there has been an emerging use of vignettes in sporting

11 contexts. Callary, Werthner, and Trudel (2012) used vignettes to demonstrate how women

12 coaches learn from their sport experiences, whereas Szedlak, Smith, et al. (2018) used

13 vignettes to stimulate interviews regarding perceptions of effective sports coaching practice.

14 Yet only limited research has examined the use of vignettes to disseminate applied

15 information to develop practitioners' knowledge, for example, in the work of mentors (Perrier

16 et al., 2015), health care professionals (Smith et al., 2015), and coaches (Douglas & Carless,

17 2008). Douglas and Carless (2008) utilised vignettes as a coach education tool illustrating the

18 potential of vignettes to stimulate reflective practice, while Gearity and Metzger (2017)

19 constructed evocative stories taken from the first author's previous experience as an elite

20 S&C coach in order to promote discussion about micro-aggressions and micro-affirmations in

21 sport coaching.

22   While the above literature provides evidence of the utility of vignettes to disseminate

23 information to practitioners, the use of vignettes has predominantly been restricted to written

24 stories. Thus, whilst the call for more creative dissemination has been answered in part, there

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1   is still a reliance on the written format. The exception to this is Smith et al., (2015) who used

2   audio vignettes to communicate physical activity knowledge to health care professionals

3   working with spinal cord injury patients. In using an audio format, the authors concluded that

4   several attributes contributed to the effectiveness of the vignette. These attributes included

5   the plot and content that resonated with the audience, credible characters as actors, and the

6   inclusion of an authentic dialogue and context. Yet of particular note is that participants in

7   Smith et al.'s study also suggested that video vignettes could be more effective in

8   communicating information, as video is visually engaging and possibly captures relational

9   interactions more effectively. Whilst S&C coach developers, such as the National Strength

10   and Conditioning Association (NSCA), have utilised technology in their accreditation

11   process, including multimedia instruction and video, the use of video stories (i.e., vignettes)

12   to encourage multisensory narrative learning needs further exploration. Indeed, with the

13   advance of technology shaping how we relate, communicate, and socially interact (i.e.,

14   Dabbagh & Kitsantas, 2012), the utility of the vignettes could be enhanced through the use of

15   technology.

16   To answer the call for more creative methods of dissemination, the focus of the

17   present study was to build on previous literature (Gearity & Metzger, 2017; Perrier et al.,

18   2015; Smith et al., 2015) by examining the use of vignettes as part of the knowledge

19   translation process to develop elite S&C coaches. In doing this, we had three specific aims.

20   Our first aim was to explore S&C coaches' perceptions of a vignette as a method of

21   disseminating information. Second, we explored what actions, if any, were initiated as a

22   result of knowledge translated through the vignette. Third, and whilst not suggesting that one

23   format is more effective than another, we aimed to examine S&C coaches' perception of

1 preferences for the format of the vignette (written, audio, visual) through which information

2 was presented.

3 **Methodology**

4 **Design and Philosophical Assumptions**

5   The study design was underpinned by ontological relativism, which views reality as

6 multiple truths that are created through relationship and dialogues with others, and

7 epistemological constructivism meaning knowledge is constructed and subjective (Sparkes &

8 Smith, 2014). Thus, to encourage narrative learning, vignettes are seen as potential resources

9 from which people may construct their own personal stories and interpret and communicate

10 their own experiences. First, we developed the vignette that would disseminate research-

11 based knowledge about effective behaviours and characteristics in S&C coaching. We used a

12 continuous narrative developmental approach, meaning that the vignette consisted of a story

13 unfolding through a series of fixed parts (Jenkins, Bloor, Fischer, Berney, & Neale, 2010). A

14 continuous narrative has the ability to keep the participant interested and engaged as each part

15 of the vignette is short, and builds upon previous events, meaning that contextual material

16 need not to be supplied for each part (Barter & Renold, 2000; Hughes, 1998). To construct

17 the vignette, we followed the template provided by Smith et al. (2015) for designing

18 authentic, narrative-based knowledge dissemination tools. This approach encouraged the

19 development of a vignette that was authentic, based on the criteria of relevance, accuracy and

20 credibility. The vignette focused on one main character (Pete), who was an experienced S&C

21 coach. The plot of the vignette included three parts that outlined Pete's learning about what

22 constitutes impactful S&C coaching practice in an elite sport environment. In order to ensure

23 relevance, the content of the vignette was congruent with the International Sport Coaching

24 Framework (ICCE, ASOIF, & LMU, 2013) and based on existing literature representing

8

1   suggested competencies in *professional knowledge*. Thus, the content included the use of

2   effective instruction (e.g., Massey et al., 2002); the need for current scientific knowledge

3   (e.g., Dawson, Leonard, Wehner, & Gastin, 2013; Dorgo, 2009); good planning and

4   organisational skills (e.g., Becker, 2009); and *interpersonal knowledge* including the ability

5   to motivate, listen, inspire, praise and provide feedback (i.e., Szedlak, Smith, Day, &

6   Greenlees, 2015). Also included was content focused on building good relationships based on

7   trust and respect (e.g., Szedlak, Smith, et al., 2018); *intrapersonal knowledge*, which

8   encourages the use of reflective practice (e.g., Kuklick & Gearity, 2015; Tod, Bond, &

9   Lavallee, 2012); and lastly, possible influences of such competencies on the holistic

10   development of the athlete (e.g., Szedlak, Smith, et al., 2018). To enhance accuracy, the

11   dialogue within the vignette used participant quotations from Szedlak et al.'s (2015)

12   interviews with athletes regarding the effective behaviours of their S&C coaches. Finally, to

13   enhance credibility of the characters, the plot, and context (Smith et al., 2015), we established

14   a working group of three experienced S&C coaches. This group met regularly to discuss

15   whether the evolving vignette was representative of an S&C coach working in elite sport and

16   their decisions were guided by the UKSCA competencies to become an accredited S&C

17   coach (UKSCA, 2018). As an example, the group discussed how varied the work of an S&C

18   coach could be and how an experienced S&C coach would have to be effective in working

19   with elite level athletes from a wide range of different sports. Thus, we ensured that in each

20   part, Pete (the S&C coach) exemplified a different element of the S&C coaching role such as

21   physiological testing, conditioning, weightlifting, and rehabilitation to elite level athletes

22   from various sports including sailing, rowing, gymnastics, windsurfing, and hockey. Finally,

23   the credibility of the messenger (Smith et al., 2015) who would deliver the vignette to

24   participants, was also considered. In this case, the primary researcher and "messenger" is an

1   experienced S&C coach working in elite sport, and thus, was seen as credible with the target

2   audience of his peer S&C coaches.

3   The vignette, consisting of three parts, was constructed in three separate formats, a

4   2,000-word written vignette, an audio vignette, and a video vignette, with each format using

5   identical dialogue. The written vignette was a typed play script. For the video and audio

6   vignettes, we recruited amateur actors and a director and audio recorded and filmed the

7   vignette with the use of a single semi-professional high definition camcorder. The video

8   vignette was then edited by the lead author using a professional editing software [Sony Vegas

9   Pro 13.0] and saved as an mp4 file. The audio vignette used the audio content only and was

10   saved as an mp3 file. A sample copy of a video and audio and vignette is available on

11   YouTube (https://www.youtube.com/user/101zete) and a copy of the script can be obtained

12   from the first author.

13   **Participants**

14   Experienced elite S&C coaches were recruited using a criteria based purposive

15   sampling strategy (Sparkes & Smith, 2014). There were three criteria for the selection of

16   participants, as outlined by the Talented Athlete Scholarship Scheme to be working with elite

17   athletes (Taylor, 2016). These were i) a minimum of three years full-time coaching

18   experience in elite sport (i.e., working with full-time funded athletes representing their

19   country or team at the highest achievable level i.e. World/European championship, Olympic

20   games and County Championship Division One); ii) experience working with a variety of

21   sports and athletes, including teams and individuals, indicating a high level of experience in

22   different elite coaching contexts; and iii) accreditation by the UKSCA or NSCA, ensuring

23   that participants interviewed were not self-declared S&C coaches, a trend commonly adopted

24   in the fitness and performance context. These criteria were used to ensure that the S&C

1   coaches participating in the study had built up a high level of technical expertise and

2   coaching skills as required for initial and yearly re-accreditation by the UKSCA or NSCA.

3   Because the focus of the current study is on the overall holistic development of athletes at the

4   elite level, it makes sense to understand the perceptions of elite S&C coaches who would

5   work with such athletes. The final sample consisted of 17 male and 2 female S&C coaches,

6   covering a variety of sports such as cricket, sailing, field hockey, football, athletics, and

7   sitting volleyball. All S&C coaches were residents and coaching within the United Kingdom

8   (white British=18, white Irish=1). The S&C coaches had an average age of 36 years

9   (Range=27-45; SD=5.9) and average experience of 13.8 years (Range=25-7; SD=3.9) with

10   10.1 years at an elite level (Range=8-15; SD=2.6).

11   **Procedure and interview guide**

12   After obtaining institutional ethical approval, the S&C coaches participated in a one-

13   to-one vignette-interview session with the researcher. These took place either via skype

14   (n=12) or in person (n=7). Each interview began with some general questions, for example,

15   "Tell me about your coaching experience so far?" and "Tell me about what has been the

16   highlight in your career so far?" The interview was then split into three sections. In section

17   one, participants were invited to either read, listen to, or watch part one of the vignette (with

18   the order randomly assigned). Once this had been completed, participants were then asked

19   questions regarding what (if anything) they had learned about effective coaching practice and

20   whether this scenario resonated with their own experiences. Example questions

21   included, "Tell me what you have learned from the story?", "Can you identify any effective

22   behaviours and characteristics of the S&C coach?" and, "Does it remind you of your own

23   coaching experiences?" The second section of the interview then explored whether the

24   vignette could be used to prompt participants' actions. Participants were asked "If you could

1 change your coaching overnight right now, what would you like to see improve and why?"

2 and, "If you could commit to a plan of introducing change to your coaching practice, how

3 would you do this and over what time?" These two questions were drawn from the principles

4 of appreciative inquiry (i.e., the dream and design phase), which encourages the participant to

5 imagine what could be possible and to explore a realistic plan that allows for active behaviour

6 change (Trajkovski, Schmied, Vickers, & Jackson, 2013). These first two sections of the

7 interview were then repeated using a different format each time (i.e., if the participant read

8 part one, then they listened to or watched part two) and moving through part two and three of

9 the vignette. After the participants had watched, read, and listened to the three parts of the

10 vignette, section three of the interview explored their perceptions of the three different types

11 of vignette. For example, participants were asked, "Which format did you prefer and why?",

12 "Which format was the most memorable to you and why?", and "Which of the three formats

13 was more useful in encouraging you to identify with the scenario/challenged your coaching

14 practice? Why?"

15   In order to enhance discussion with participants, we used a whiteboard for face-to-

16 face and a shared notebook (OneNote) via skype for phone interviews, on which we noted

17 key phrases of the participants' responses. This allowed them to revisit points already made,

18 prompting further explanation. Further, throughout the interview participants were asked

19 probing questions, such as "Why is this?" and "What do you mean by this?" to clarify and

20 prompt elaboration on general comments participants made such as "this story was helpful"

21 or "it was similar to my experiences". The interviews lasted an average of 75 minutes

22 (Range=61-80; SD=4).

23   One week after the initial interview, we conducted a brief follow up interview with

24 each participant, lasting approximately 15 minutes each (Range=12-23, SD=3). This time

1 between interviews allowed the S&C coach to consider and initiate possible active change in

2 their coaching practice. First, we intended to discover how, if at all, the knowledge

3 disseminated by the vignette had influenced their coaching practice. Second, we asked the

4 participants about which type of vignette made them remember the information they acted

5 upon and why. Sample questions included "Tell me what you can remember from the story?",

6 "What changes, if any, have you made in your coaching practice over the last week as a

7 result?" and "Which format made you remember this information? Why?"

8 **Data Analysis**

9   The data were analysed using an inductive thematic analysis following the six-phase

10 procedure outlined by Braun et al. (2017). This type of analysis allowed us to identify main

11 themes in the data without being restricted to pre-existing codes. The transcripts were read

12 and re-read by the first author followed by gathering initial codes. The initial codes were

13 collapsed into potential sub-themes and all data pertaining to the sub-themes were gathered.

14 Next, the sub-themes were reviewed against the entire data set and then combined and refined

15 into larger main themes, which involved thinking about the relationship between codes,

16 themes, and levels of themes. Following on, we reviewed the themes in relation to the entire

17 data set and generated a thematic map including clear names for each theme. Last, we

18 produced the written report of the results. This final step allowed us to analyse whether the

19 data had been interpreted and made sense of, resulting in a well organised, concise, coherent

20 and compelling story about the topic (Braun et al., 2017). Data from the first or preceding

21 interviews were analysed before conducting the next. We repeated this process and recruited

22 participants until we achieved saturation. Data saturation is attained when there are no more

23 emergent patterns in the data, at which point completing further interviews does not add any

1   new information (Hennink, Hutter, & Bailey, 2010; O'Reilly & Parker, 2013). As a result of

2   this process, we identified three main themes and eight sub-themes.

3   **Enhancing rigor**

4   In line with our relativist ontology, we drew from on ongoing list of the characterising

5   traits to judge the quality of the study (Burke, 2016; Smith & McGannon, 2017). This means

6   the criteria chosen are representative of the context and purpose of the study judged (Smith &

7   McGannon, 2017; Smith & Sparkes, 2009; Sparkes & Smith, 2009, 2014). In the present

8   study, we invite the reader to consider the following seven quality indicators: the topic of

9   research, rich rigor, sincerity, transferability of findings, naturalistic generalisation, providing

10   a significant contribution, and meaningful coherence (Smith, 2017; Smith & McGannon,

11   2017). First, the topic of research needs to be relevant, timely, and significant. Research so

12   far has been limited addressing effective S&C coaching behaviours and their effect on

13   athletic development, and novel ways to disseminate this knowledge, such as the use of

14   vignettes to encourage narrative learning, has been neglected. Second, to enhance rigor, we

15   ensured data saturation was achieved thus providing a sufficient sample (Smith &

16   McGannon, 2017). Third, the researcher used a reflective diary throughout the data collection

17   and analysis process to enhance transparency about the method and findings (Tracy, 2010).

18   The co-authors, acting as 'critical friends', routinely discussed entries from the reflective

19   diary. This practice of self-reflexivity highlighted the researcher's active and transparent

20   nature in the data analysis process (Sparkes & Smith, 2014). As an example, the team

21   discussed how the first author's coaching experience and knowledge may influence his

22   interpretations of the data. The co-authors provided alternative explanations and

23   interpretations which enhanced the sincerity of the data analysis (Braun et al., 2017).

1   Fourth, we limited participation to S&C coaches who were highly experienced,

2   working in the elite sport environment with a variety of different sports to enhance the

3   transferability of the findings (Tracy, 2010). Fifth, we aimed to encourage naturalistic

4   generalisations by highlighting how the research impacted and affected the participating S&C

5   coaches (Smith, 2017). This process allowed the S&C coaches to determine if and how the

6   experiences presented in the vignette can be applied to their own personal context (Hellström,

7   2008). Sixth, to enhance the study's methodological contribution, we aimed to illuminate

8   how and why different types of vignettes influence the knowledge translation process, and

9   thus, amplify the call for more variety within narrative research methods. Finally, to ensure

10   coherence of the results, the researchers used an audit trail to scrutinize the data collection

11   process in conjunction with entries from the first author's reflective journal (Connelly &

12   Peltzer, 2016; Tracy, 2010). Initially, the first author analysed the data and discussed the

13   themes with the second author. Then authors three and four evaluated the presented themes.

14   We repeated this process several times until all authors agreed that the themes represented the

15   data analysed.

16   **Results**

17   Three main broad themes are presented that describe participants' experiences of

18   reading, listening to, and watching the vignette. These results focus on participants' overall

19   perceptions of the use of vignettes to disseminate knowledge, the coaching actions prompted

20   by the vignettes, and perceptions of each type of vignette (see Figure 1).

21   **Coaches' Perceptions of Vignettes for Knowledge Dissemination**

22   This theme explores S&C coach perceptions of the use of vignettes as a knowledge

23   dissemination tool, focusing on resonance, memorability of the information disseminated,

24   and narrative imagination.

1   **Resonance.** Participants described that all formats of the vignette encouraged

2   reflection, as the story created an emotional response or opinion based on the participants'

3   personal experiences of coaching. Thus, the vignette resonated with participants, who

4   connected with the plot, characters and dialogues within the vignette, allowing them to recall

5   similar past experiences. For example, after watching Pete (the S&C coach in the story)

6   prioritise the athletes' sport over his programme, one participant explained:

7   This is one of my fears. This is the stuff I reflect on. I have done this [coaching] for

8   quite a long time, and I hope to recognise my previous mistakes. I have had times

9   when I just pressed on with my programme and did not recognise that the athletes had

10   a sport to do, so I can resonate with that really well. (Participant 8)

11   The above quotation illustrates how the vignette may provide powerful tools for allowing

12   S&C coaches to open up and share their own experiences. In particular, resonating with

13   mistakes made by the lead character may allow S&C coaches to confront their own practice

14   and share their fears more openly. Yet, as well as sharing fears, resonance also allowed

15   participants to question their own coaching practice:

16   The vignette personalises it. You can easily identify with where the athletes are

17   coming from. The vignette is just easy to relate to and encourages me to think back to

18   a similar session that I have done. You then start questioning whether you would

19   agree or disagree with what the S&C coach [Pete] has done [in this case providing the

20   rationale for the exercise selection to educate the athlete] and I started thinking how I

21   reacted in my previous coaching session. Should I have changed my approach? If so

22   why? (Participant 7)

23   These quotations illuminate how the vignette disseminated information in a way that

24   encouraged participants to not only reflect on their own experiences, but also question their

16

1   decisions and consider alternative actions. In particular, participants were able to achieve this

2   first through questioning the actions of the lead character and subsequently relating these

3   actions to their own experiences. Thus, participants demonstrated their active engagement in

4   the story and ability to consider how the disseminated information fit within their own

5   coaching approach.

6   **Memorability**. Participants described that the use of the vignette enhanced their

7   ability to recall disseminated information. For example, one participant explained why the

8   information delivered through the vignette was particularly memorable:

9   The S&C coach displayed a lot of sympathy and understanding, he discussed with

10   them [the athletes] about how they were tired but how they should still carry on with

11   their training programme. When he went out of the room, they spoke about how they

12   respected him and how they trusted him and he has built that over a long period of

13   time with them. I can see that replaying in my head a bit, like watching it again, I can

14   remember seeing how enthusiastic he was standing right in front of the camera at the

15   end reflecting on the day. That enthusiasm really spoke to me it just conveyed a lot of

16   positivity to me over the last week. (Participant17)

17   This demonstrates how the vignette provided the potential to do more than simply

18   disseminate memorable information. Instead it was able to 'speak or create personal

19   meaning' to participants. In doing this, the information conveyed in the vignette became

20   more memorable and was consequently reflected on during the following week.

21   **Narrative imagination.** Finally, participants described how the vignette encouraged

22   narrative imagination. Narrative imagination, or the ability to connect with the form or

23   template to interpret stories and make sense of their lives, enabled the participants to imagine

24   how the narrative portrayed in the vignette could affect their own coaching practice:

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1   I link that vignette to a specific conversation that I had with an athlete and it just

2   easily applies to my own coaching environment. In this scenario, there was lot about

3   trust and rapport and also getting to understand how the S&C coach fits into the

4   athlete's sport schedule. This is so essential within the sport [sailing] I am working at

5   the moment. I am working with a large number of athletes and time is always

6   precious. Reflecting on this, I actually made sure in my last session, that I gave the

7   athlete a little time at the beginning to just have a chat about her season and how she

8   felt that day. My default would be to go straight to the warm up. (Participant #12).

9 Here, the participant linked the narrative of the vignette to how he made sense of his own

10 coaching practice. Moreover, this quote illuminates the process of how narrative imagination

11 encouraged the participant to consider how the disseminated knowledge led to action. The

12 participant reflected on the relational aspect of coaching, identified how important this was

13 within his coaching context, and as a result altered his schedule to allow the building of

14 rapport and a positive relationship at the beginning of a session.

15 **Knowledge to Action**

16   The following theme describes how participants applied the knowledge disseminated

17 by the vignette into action. In particular, this theme demonstrates how the vignette allowed

18 participants, during the week after they engaged with it, to evaluate their values and change

19 their behaviours, as well as enhancing their self-reflection process.

20   **Reflecting and changing behaviour.** As a consequence of engaging with the

21 vignette, participants described how they evaluated their own coaching philosophies and

22 values. As one participant described, "[the takeaway] for me is to revisit my coaching

23 philosophy and try to work out how I will be able to motivate my athletes in the power

24 sessions when they are tired." (Participant 9). In response to the S&C coach (Pete) in the

1 video leaving the athletes to encourage autonomous behaviours [Part 1], one participant

2 elaborated on how the vignette served to reinforce his coaching values:

3   How are you going to better understand yourself [as an athlete] if you have an S&C

4   coach saying "today you do these lifts and tomorrow you do this and the next day

5   something else". I do not get that. I call it Nintendo Coaching. Whereas you should

6   get to a stage where they just come in and you are allowing them to just train, and

7   they train, and make the right decisions about how much they are going to lift that

8   day. The only time I would intervene is, if I would think they are making a major

9   error. So, allow them to make the decision [about load and techniques] but if the

10   decision is incorrect then ask them to reflect and step in. (Participant 10).

11 Feeling justified in his coaching practice allowed this participant to be passionate about his

12 personal coaching values. Taking the reflection process even further, one participant

13 highlighted that as a consequence of reviewing his coaching practice and feeling reinforced,

14 he reworked his views and ideas, and thus engaged in more critical reflection. In response to

15 the content in part 2 of the vignette, which illuminated how effective instruction and

16 scientific knowledge can impact the way an S&C coach would programme and deliver future

17 sessions, this participant elaborated:

18   The video vignette was quite effective in making me reflect on my own practice.

19   Yeah, I have probably seen both sides, one where you would have very successful

20   sessions like that [the athlete leaving very motivated and confident] and how that

21   helps build that relationship with the athlete. Then when moving forward [future

22   sessions] I can be a little bit more experimental and push the athletes forward and they

23   kind of jump in head-first and do it because they trust me. On the flip side, I have had

24   sessions where I worked with an athlete and I battled to make him technically

1   proficient and the athlete did not get it and left a little bit frustrated. That is not

2   necessarily a backward step, but I realised that I need to take the next session a little

3   bit slower and provide more bite-size information and instructions to that particular

4   athlete. That is coaching, continually analysing and improving your approach.

5   (Participant #14)

6 These responses demonstrated how the participants personally consider and aim to apply the

7 knowledge disseminated by the vignette. As a consequence of these considerations

8 participants also discussed direct actions taken. For example, participant two set up feedback

9 surveys to gain insight on how the athletes perceived their sessions, and participant five had

10 allowed athletes to have more autonomy by stepping back and observing from a distance.

11 Furthermore, participant 16 reflected that "by being encouraging and fun and that seemed to

12 make them quite motivated to get going again which is usually quite difficult after a long

13 season". This suggested how the process of engaging with the vignette had rekindled his

14 early enthusiasm for coaching.

15   **Enhancing the reflection process.** The participants suggested that the vignette

16 provided or initiated a more formal structure that enhanced their reflections, with one

17 participant highlighting:

18   I think the vignette was brilliant as it made me reflect on my own coaching practice.

19   What I picked out made a lot of sense to me at that time and in that specific context. I

20   mean, when I saw the S&C coach in the video changed the programme of the rowing

21   athletes so that they were fresher for the rowing session [Part 3], it made me reflect on

22   situations where I should have probably done the same. So, what I have done as a

23   result is that now, before I start a session, I ask the athletes how they feel from 1 out

24   of 10, and if they are tired, below 6, I will change the programme accordingly. I think

20

1   this kind of reflection process needs to be done more often on a lot of different

2   disciplines, unfortunately what happens quite often is that people prioritise their time

3   on delivery and not on reflection and reviewing. And that is something that I am keen

4   for S&C coaches to build into their diary, when do you review and when do you

5   reflect as opposed to just deliver, deliver and deliver. (Participant 10)

6 This quote suggests that the process of reflection is not only of value to evolving S&C

7 coaching practice but might be seen as of equal importance to technical delivery. As such, a

8 more formal process of guiding and encouraging S&C coaches to deeper levels of reflection

9 through the use of vignettes should be considered.

10 **Coaches' Perceptions on the Three Types of Vignettes**

11   **The use of written vignettes.** Participants highlight how the written format allowed

12 them to easily identify key themes presented. One participant suggested:

13   In terms of being able to pull out key themes, the written vignette was the easiest and

14   clearest because I can re-read it and make notes, for me the written one is the most

15   effective because I'm used to reading articles and highlighting key areas.

16   (Participant 1)

17 Here, the participant perceived that familiarity, in this case with the written format, allowed

18 him to engage in the details of the vignette. In the words of another participant, this is like,

19 "writing a diary and you re-read your own notes and that way of reflecting allows for more of

20 a thought process" (Participant 9). When asked in a follow-up interview one week later as to

21 what they could remember from the written vignette, one participant explained "I think the

22 written scenario seemed a little bit more detailed than the others and it allowed me to build up

23 a picture of the S&C coach and the athletes in my mind, which I can clearly remember"

24 (Participant 18). Such suggestions are interesting given that the same information was

1 presented in each type of vignette. Yet this quotation highlights how the written format

2 allowed the reader to picture the scenario and imagine the conversations, which helped this

3 participant to remember the information disseminated by the vignette.

4   **The use of audio vignettes.** Participants perceived the imagination required to build

5 up the characters and the context through the audio format (similar to the written) an

6 advantage to engage with information disseminated just from listening to the audio:

7   I quite like the audio, mainly because I like listening to podcasts. The benefit of

8   having just the audio is that in your mind you pitch together almost what is in front of

9   you. With the audio, you are just able to listen and imagine the context that you are in.

10   It would be difficult for that video context to be exactly the situation that you are

11   thinking about. When you listen to an audio of a different situation, you might link

12   that to a specific conversation and having a video in front of you might blur that kind

13   of connection. (Participant#12)

14 In particular, this participant, who was familiar with the audio format, suggested that the

15 audio format has the capacity to arouse imagination, which implies that the participants

16 needed to make an effort to imagine or build a mental picture themselves. Thus, the use of

17 audio might help the listener to apply the information disseminate to one's own personal

18 context.

19   **The use of video vignettes.** The enhanced sensory stimulus of both seeing and

20 hearing provided by the video enabled the participants to create mental pictures which

21 lingered and "sticks in the mind a little bit more" (Participant 15) and "is just easy to

22 remember" (Participant 1). The use of video vignettes was perceived as direct, and focused

23 the participant's imagination:

1   If you read you will make it up in your imagination, which is great when you read

2   fiction, but backing the words up with visuals makes it much more concrete in your

3   head. It makes me concentrate on the actual interactions or what they are doing and

4   saying a little bit more, which really helps me to think about my own coaching.

5   (Participant 11)

6 These quotes highlight that the concrete and animated mental images in the video direct the

7 participant's focus toward the interactions between the S&C coach and the athletes. As a

8 result, participants examined the behaviours and characteristics of the S&C coach in the

9 vignette and were prompted to discern their own practice and possible ways of improving.

10   Secondly, participants also highlighted how the video brought the characters and the

11 story alive. After watching the video (Part 3), where the S&C coach (Pete) works with two

12 elite rowers, one participant reiterated how the video provided elements such as eye contact

13 and body movements, which appeared to allow for a clearer picture of how the S&C coach

14 interacts within the relationship; "How does he greet them? Does he look them in the eye?

15 Does he sit down? Is he busy doing something else whilst they are talking to him and he is

16 not paying attention?" (Participant 11). Another participant elaborated how the interactions of

17 the characters influenced the credibility of the story, saying "You see the interaction between

18 them, the body language and the tone in which things are communicated, how the

19 engagement is, how they interact, how they feel, there is definitely more realism to the video"

20 (Participant 19). Thus, the video appeared to connect the dialogue with body movements and

21 eye contacts made by the characters. The participants therefore seemed able to observe the

22 characters exhibiting certain emotions and feelings, as well as listening to their tone of voice,

23 which appeared to provide the participants with a real context.

1   The video gives it real and natural context, for example, what is it they are doing in

2   the gym? What are their techniques like? Is he coaching the technique, is he not

3   coaching the technique? It just gives a lot of actual context. (Participant 10)

4 This quote shows how the video format allowed participants to observe specific elements that

5 could only be analysed and critiqued if presented in a visual format. Such elements included

6 observing movement (athlete's technique of a lift) and how and in what manner the S&C

7 coach responds (coaching style). Thus, participants perceived the vignette as believable and

8 relatable because they expressed a preference for seeing a context rather than having to

9 imagine:

10   Being able to see that is most powerful for me. How they say it, their expressions and

11   how they move. It is the old saying 'a picture paints a thousand words'. I guess that is

12   difficult to get from a piece of paper and you can read about what they saying as they

13   are going through the conversation. But when you can see it visually it is a more

14   realistic and believable. The video makes it easier to relate to, as it is closer to what

15   you might experience if you are working with a group of athletes. (Participant 4)

16 The above responses suggest that the video vignette allowed the participants to combine the

17 visual, audio, and kinaesthetic, which resulted in a compelling stimulus. As a consequence,

18 the participants perceived the video to be useful in capturing their attention and provoking

19 thought and action.

20   Finally, participants explained that the use of video enabled them to identify with

21 similar experiences or scenarios in their coaching journey. This allowed them to emotionally

22 connect with the story, which in turn encouraged narrative imagination:

23   Watching the video is an emotion provoking connection. I guess that is why videos

24   are used everywhere. It triggers different emotions within you that you associated

1   with these expressions [of the athletes and S&C coach]. It is so easy to link the

2   emotions and feelings you observe [in the interactions of the characters] with what

3   you felt in similar experiences, it just brings it all back as if you were coaching that

4   experience again. (Participant #4)

5 This familiar personal connection stimulated participants to examine and discuss opinions on

6 what they perceived to be effective or ineffective coaching practices and why. The resulting

7 reflections were seen to be personal and context specific, allowing the participants to examine

8 their own narratives, or underlying structures or concepts of how they make sense of their

9 own coaching practice. This means that what was considered by one participant to be an

10 effective behaviour of the S&C coach in the vignette was sometimes considered an

11 ineffective coaching behaviour for another participant. For example, participants perceived

12 that leaving the athletes to carry on with their workout alone was both positive 'building

13 autonomy' (Participant 11) and negative as 'neglecting coaching duties' (Participant 19).

14 When asked about how this emotional connection affected their learning from the video (Part

15 1), one participant elaborated:

16   Your attention is drawn to specific areas that are relevant and that you focus on at that

17   particular time and you get some clear learning points from it then you can move

18   forward with one or two of those based on your current priorities. For me, it was the

19   caring nature of the S&C coach in the video. That really spoke to me and I started to

20   think about my own coaching experiences and how I could possibly show a little more

21   care. This is not something that comes easy to me, most of the times I am just not

22   aware of it. Because of that, I decided to give my athletes a little more time for

23   feedback and I made sure at the beginning of the session to have a more general

1   conversation about how they are doing. Simple things but I feel they were quite

2   effective. (Participant 15).

3   The above quotes illuminates how participants perceived the video format to enable them to

4   analyse and critically evaluate not only what is communicated, but also how the information

5   is communicated by means of movement, tone of voice, feelings, and expressions. As a

6   consequence, the video was perceived to emotionally capture and engage the participants.

7   Furthermore, this emotional connection allowed the participants to reflect on their own

8   practice. Therefore, the participants considered practical actions that are most pertinent or

9   relevant to their current context, and thus, most impactful. In summary, these results suggest

10   that the written, audio, and video vignette are each effective in disseminating knowledge to

11   coaches. However, personal choice and familiarity may determine which format the S&C

12   coach perceives to be most useful. In addition, the results appear to highlight an overall

13   preference for the video format, due to how the video can communicate emotional, verbal and

14   non-verbal coaching behaviours and characteristics effectively.

15   **Discussion**

16   The principle purpose of the current study was to explore the use of a vignette as part

17   of the knowledge translation process in developing elite S&C coaches, exploring how the

18   vignette was perceived by S&C coaches and whether the use of the vignette led to any actions

19   of the coach in response. Additionally, we explored the use of different formats of the

20   vignette. The results highlight that the written, audio, and video formats of the vignette all

21   provide valuable resources for disseminating research-based information and encourage the

22   participant to take practical action. Our results also illustrate how the vignette allows the

23   S&C coaches to identify, engage with the scenarios, and remember similar experiences,

24   thereby supporting previous suggestions from Scott et al. (2012) that stories may offer

26

1 enhanced memorability and resonance when used to encourage learning. Furthermore, our

2 results show how the vignette can disseminate information to the S&C coaches through what

3 Smith et al. (2015) term resonance, which determines how compelled, engaged, and

4 motivated the person becomes when identifying with the characters, context, and plot of the

5 vignettes (Frank, 2010). As such, resonance enhances the process of naturalistic

6 generalisation, which allows participants to make choices on their own understanding of the

7 scenario presented in the vignette rather than feeling the vignette is instructing them what to

8 do (Smith, 2017). Furthermore, resonance encourages internal dialogue, in which the S&C

9 coach starts to think about and evaluate the information presented by the vignette, and

10 participants noted that the vignette encouraged such dialogue. Internalisation of research

11 findings might not occur as effectively when presented in formats such as results sections in

12 scientific journals (McAdams, 1993; Petraglia, 2009).

13   Our results extend the previous literature by highlighting how different formats of the

14 vignette influence resonance, memorability and narrative imagination. All formats

15 encouraged what Frank (2010) termed 'narrative imagination', which provided opportunity

16 for the S&C coach to discern and discuss other possible scenarios (Andrews, 2014). In the

17 present case, the S&C coaches were able to associate the vignette with a similar coaching

18 scenario or imagined a potential coaching scenario using their own athletes and contexts.

19 Next, they reflected on possible changes needed to become more effective as an S&C coach.

20 The written and audio formats first required the S&C coaches to imagine the context and

21 characters and then lead to narrative imagination. S&C coaches perceived this as a strength,

22 as they seemed able to place and imagine their own athletes, and contexts within the story.

23 Alternatively, the S&C coaches' perceptions of the video format supported Papathomas'

24 (2016) supposition that a video format can provide more of the story and enhance the

1   characters' identities and interactions. The S&C coaches were able to not only think about

2   what, but also how the information was communicated. Thus, independent of the format, the

3   vignette was seen to encourage the S&C coaches to discern and analyse their own

4   experiences.

5   Previous litarature has highlighted that vignettes are performative as they initiate,

6   suggest, and call for responses from the coach (Martin, 2007). Knowing what influences the

7   format has on how and why S&C coaches respond to vignettes is critical if we want to

8   maximise the potential of vignettes as a knowledge translation tool, we should know how and

9   why different vignette formats influence S&C coaches' responses. Our results indicate that

10   the vignette, independent of the format used, disseminated information effectively and is

11   suitable to encourage and motivate the S&C coach to change behaviour. However, our

12   findings suggest that S&C coaches have a preference toward the video format, with findings

13   illustrating how they were emotionally captured and engaged with the video vignette.

14   Previous research has identified similar strengths of vignettes (Scott et al., 2012), and our

15   findings support the proposition of Papathomas (2016) that emotions provide meaning to

16   experiences and connect such events into a plot. Consequently, the S&C coaches considered

17   practical actions that are most pertinent or relevant to their current context. The video not

18   only challenged the S&C coaches to evaluate their practice, but also, as suggested by Smith

19   et al., (2015), reminded and reassured the S&C coaches of areas in their coaching that are

20   going well. In summary, the video vignette was perceived as providing an emotionally

21   connecting stimulus and lead the S&C coach into reflection, which included reflection on the

22   disseminated information and consideration of practical applications, thus achieving

23   knowledge translation.

1   Further, the findings of the present study provide evidence that S&C coaches'

2   perceive the video format to enhance their personal identification with scenarios presented.

3   The video format was seen to bring the characters alive with eye contact, body movements,

4   interactions, and emotions providing real context. As Papathomas (2016) suggests, the

5   contents of the story appeared more compelling and stimulating for the participants when

6   watching the video. Written and audio vignettes make the unseen visible by use of

7   imagination; using video, the unseen is already being made visible and the story speaks for

8   itself (Phoenix, 2010). Recent research analysing the cognitive processes of storage, retrieval

9   of information can in part provide an explanation for the enhanced personal application of the

10   video format. Murphy, Nordin, and Cumming (2008) suggest that the process of imagining

11   uses part of our working memory. As we evaluate the information in our working memory,

12   we come to make decisions (Lipshitz, Klein, Orasanu, & Salas, 2001; Lyle, 2010). If the

13   S&C coach does not have to imagine and build up the characters and context first, less

14   memory is used. Paas, Van Gog, and Sweller (2010) suggest that this is due to less

15   *extraneous cognitive load* (any cognitive activity engaged in because of unfamiliarity or the

16   way a task is presented). As a result, the S&C coach can concentrate on the key focus, which

17   is to reflect upon the vignette and recall relevant past experiences from long-term memory.

18   Additionally, our results suggest that the S&C coaches' familiarity or being used to learning

19   through video further reduce extraneous cognitive load. Thus, the overall reduction in

20   cognitive load could possibly explain how personal identification was enhanced and that

21   there were increases in meaningfulness of the information disseminated when viewing the

22   video vignette. Nonetheless, what is meaningful to one S&C coach might not be meaningful

23   to another and the video format might encourage greater individual application. In summary,

24   the video format appears very suitable to the knowledge translation process as the S&C

1 coaches were seen to respond to what was most meaningful or pertinent to them at that

2 particular time according to their personal coaching situation.

3   Our results also reveal how vignettes can compel and motivate the S&C coach to think

4 more deliberately about coaching behaviour change as they engage the S&C coach and

5 encourage reflection through internal learning. Moon (2013) suggests that internal learning

6 promotes internal dialogue and discussion of the meaningfulness and relevance of a situation.

7 This internal dialogue is inherent in motivating change within coaching practice and supports

8 the suggestion of Gergen, Gergen, and Barrett (2004) that the immense power of dialogue

9 (internal or external) encourages behaviour change. The S&C coaches in our study were seen

10 to engage in what Moon (2007) describes as more critical levels of reflection such as

11 evaluating their coaching philosophy and values, and reworking their own views and ideas,

12 especially when viewing the video format. The visual stimulus created a shift from

13 descriptive to reflective accounts, from no questions to asking questions of oneself and to

14 answering those questions, and from self-questioning to challenging one's own ideas (Moon,

15 2007).

16   Although reflective practice is encouraged within the elite S&C coaching context

17 (Kuklick & Gearity, 2015; Mills & Gearity, 2016), the necessary guidance and education on

18 how to effectively engage in deep reflection (i.e., searching for additional understanding and

19 meaning) is sparse. Coaches new to reflection tend to have a limited understanding of what

20 reflection entails. Thus, initially they reflect more descriptively rather than critically

21 expressing positive and negative personal experiences (Callary, Werthner, & Trudel, 2011).

22 The S&C coaches in our study predominantly approached the reflection process with an aim

23 to solve a problem or reduce errors in their practice. Thus, our results strengthen Kuklick,

24 Gearity and Thompson (2015a,b) findings that a reflection based on a problem-solving

1 approach is beneficial to develop effective coaching practice including intrapersonal and

2 interpersonal skills. While a problem-based approach is part of critically reflecting, Dixon,

3 Lee, and Ghaye (2013) suggest that reflecting on positives or successes, with the aim to

4 understand what caused the successes and how to reproduce them, would further enhance the

5 reflection process. Our findings suggest that the vignette did initiate the reflective process

6 (i.e., provide topical focus and context) as S&C coaches are stimulated and encouraged to

7 examine their coaching practice. Yet, a facilitated or guided process (in this case, an

8 interview with targeted questions regarding S&C coach development) was required to

9 enhance the S&C coach's understanding of what constitutes effective reflective practice, and

10 then to progress the S&C coach into more critical reflection towards behaviour change. As a

11 result, the S&C coaches participating in the present study identified areas for personal

12 development and recommended a more formal, guided reflection process, which is in line

13 with Knowles, Katz and Gilbourne's (2012) suggestions of allowing for more critical

14 reflection thus ensuring behaviour change. The S&C coaches perceived the vignette to be

15 useful to encourage reflection, but we suggest this could be more effective when included as

16 part of a structured reflection and implementation process. Future research should consider

17 investigating how vignettes might be included as part of a structured, guided reflective

18 practice over a longer time-frame, to explore how they might influence the S&C coaches'

19 engagement in the process of translating new information into active change. This approach

20 would provide S&C coach developers with a structure to develop effective psychosocial

21 coaching behaviours in an applied setting.

22   Our findings also illustrated how the vignette encouraged the S&C coaches to engage

23 with moral, ethical, and societal issues of the coaching process such as their values and

24 philosophies. Sport coaching is a psychosocial practice, an activity that happens between

1   people (Cassidy, Jones, & Potrac, 2015; Kirk, 2010). The importance of psychosocial

2   behaviours and characteristics within sports coaching is not novel and previous research has

3   emphasised the importance of areas such trust (Jowett & Poczwardowski, 2007), social

4   support (Brooks, Ziatz, Johnson, & Hollander, 2000; Magnusen, 2010), and being able to

5   motivate or counsel (Szedlak et al., 2015). However, whilst we know these elements are

6   fundamental to effective coaching, research so far has neglected to examine adequate

7   strategies to develop such psychosocial behaviours in S&C coaches. Our results emphasise

8   how S&C coaches evaluated their psychosocial world, including considering their coaching

9   values and philosophies, leading to a change in coaching behaviours. Thus, our results

10   suggest that the use of vignettes is suitable to encourage narrative learning and has potential

11   as a practical and effective coach development tool.

12   Whilst we have highlighted the perceived benefits of using vignettes to encourage

13   narrative learning and develop S&C coaching practice, there are various limitations of the

14   study to consider. Although our vignette was perceived as resonating with the S&C coaches,

15   the amateur actors used in creating the vignette may partially limit the authenticity of 'real'

16   coaching. Furthermore, some of the S&C coaching scenarios presented (e.g., focusing on

17   athletes from one specific sport such as sailing) might not have been relevant to the

18   participants' own coaching environment. Thus, future research might also consider the use of

19   vignettes based on actual video footage of experienced S&C coaches representing real-life,

20   sport-specific coaching practice. Another possible limitation is that the S&C coaches'

21   responses to the vignette do not predict how they would actually react in a similar situation

22   with an athlete. Though research proposes that S&C coaches' reflection on the vignette might

23   be seen as a social action in its own right (Jenkins et al., 2010), we suggest the use of

1   vignettes in S&C coach development should be seen as a scaffolding strategy, which could

2   provide topical focus for reflection on actual coaching experiences.

3   Further aspects of using vignettes in an applied context need to be considered in view

4   of how they might be used to disseminate information. Vignettes can communicate complex

5   knowledge in a straightforward way to a variety of audiences, due to its storied form. Such

6   communication relies on narrative imagination, which requires mental effort that is

7   influenced by experience, mental capacity, and mood (Murphy et al., 2008). Thus, it could be

8   argued if the S&C coach is mentally tired, then using vignettes to communicate new

9   information may have limited effect. In addition, coaching has been described as is an

10   idiosyncratic process, meaning that there are many ways to learn to become an effective

11   coach (Callary et al., 2012; Werthner & Trudel, 2009), thus preference of learning strategies

12   including delivery formats is individual and personal. While our results illustrate an overall

13   preference for the video format, it may be that some S&C coaches would prefer different

14   formats, depending on their individual learning styles. Therefore, our findings should be

15   considered as one possible novel, alternative strategy to disseminate information to the S&C

16   coach, which could be utilised to add value to existing S&C coach development strategies

17   (i.e., academic publications, conferences, internships, mentorship, workshops).

18   In summary, results of the current study contribute to the literature in three specific

19   ways. First, our results suggest that vignettes can be an effective knowledge translation tool

20   for S&C coaches, thus strengthening the findings of previous research that has found

21   evidence of vignettes to disseminate information in an applied setting (Gearity & Metzger,

22   2017; Perrier et al., 2015; Smith et al., 2015). Second, whilst S&C coaches identified various

23   strengths of the audio and written format, S&C coaches appear to prefer accessing the

24   vignette in video format as this more fully engaged them in the knowledge translation

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1   process. Last, our results highlight the potential of using vignettes as a narrative learning

2   strategy that encourages reflective practice, with the aim of leading to behaviour change.

3   Thus, our results suggest that S&C coach developers, such as the UKSCA and NSCA, should

4   consider vignettes as a novel, alternative strategy that contributes to the development of

5   effective S&C coaching practice.

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