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Developing coaches' professional judgement and decision making

Developing Coaches' Professional Judgement and Decision Making: Using the 'Big 5'

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Abstract

Coaching can be seen, in large part, as a decision-making game in which coaches must decide on and then deploy an optimum blend of tools to best meet the needs of performance and context. Examining this concept through a lens of professional judgement and decision making, research has shown positive benefits for this approach to understanding and enhancing the coaching process and its outcomes. To date, however, there has been less attention paid to the development of simple applied tools which can be used to facilitate these skills. Accordingly, this paper describes the Big 5, a structured approach to critical reflection which can be used to improve coaching. Following its description, we present some preliminary data on the impact of the Big 5 in a sample of professional adventure sports coaches.

Introduction

Developments in understanding and enhancing the coaching process have increasingly focused on the design and application of plans which are optimised to meet the needs of the learner in each particular context (e.g. UK Coaching 2018). In an attempt to understand and enhance this process, coach education has developed an evidence-based focus on the coach's professional judgement and decision making (PJDM; Abraham & Collins 2011). In simple terms, PJDM sees coaching as based on a series of decisions taken prior to, during and after the coaching process. Under this approach, outcome quality is directly related to the appropriateness of the decisions, which are in turn based on the coach's knowledge base, his/her situational awareness and experience with the PJDM process. Clearly related to critical reflection (Schön, 1987), PJDM places a specific and explicit focus on the correctness of the chosen approach for the specific context. As such it is an approach rather than a theory in itself, encouraging the coach to draw on knowledge of other theories to make the optimum selection.

The approach has received attention in several settings, most notably in the hyperdynamic and high-stakes environments which characterise adventure sports (AS; e.g. Collins, Collins & Grecic 2015; Collins & Collins 2016a). Most recently, this work has focused on the characteristics and methods of PJDM in groups of high-level AS coaches (e.g. Collins & Collins 2016b) with a view to then developing similar skillsets in trainees.

Given that the importance of PJDM in particular (Collins, Carson, Amos & Collins, 2018) and expertise approaches in general (Collins et al. 2015; Cruickshank & Collins 2015) has been established, the essential next step is to explore how the approach is best developed. Of course, quality coach education is an important element in the development process (cf. Abraham, Collins, Morgan & Muir, 2009). Given the expressed preference of many coaches

(e.g. Cushion, Armour & Jones 2003) and coach educators (Nelson, Cushion & Potrac 2006) for less formal methods of education and development, however, it is important to explore ways in which both the approach and preferences can be catered to.

Accordingly, this paper presents the Big 5 (B5), an experiential method of developing PJDM. In Part 1, we introduce the approach and offer some examples of how it fits with/caters for other ideas on coach development. Part 2 then presents some preliminary data to support the impact of the approach within a sample of UK-based, AS coaches.

Part 1: Developing coach expertise

The nature of the Big 5 intervention

Even in AS coaching, where personal performance may be significant over and above the ability to demonstrate or explain, there still seems to be too little consideration of the planning, adaptability and optimisation skills underpinned by effective PJDM (Sinfield, Allen & Collins 2019). Accordingly, our push for a PJDM intervention is to expose and critically consider the cognitive processes involved in the planning and deployment of coaching, an explicit focus on the why, followed by the how and what of the plan (cf. Martindale & Collins 2010). Through this structured approach, the coach is encouraged towards a 'cognitive apprenticeship' approach (cf. Collins, Brown & Holum, 1991).); this requires the individual's critical reflection but also sharing ideas and rationalisations with others. Finally, the requirement to generate alternatives keeps the coach cognitively honest in the search for better approaches.

Reflecting this, the B5 uses a series of graduated questions which are increasingly cognitively challenging, moving through stages of reflection on the consequences for process and outcome. The version designed for use in AS with Outward Bound is shown in Table 1.

Table 1 about here

As shown, the approach requires the coach to consider and often share with colleagues the decisions taken in planning and executing the session (steps 1 and 2), a statement of alternatives (step 3) and under what conditions these might have been more appropriate (step 4), followed by some proactive considerations of what contingencies might be needed (step 5). As such, the coach is engaged and guided in a structured and overt consideration of their PJDM processes, contextualised to real-life challenges.

Theoretical and empirical touchstones to the process

Although grounded in the PJDM approach, the B5 offers good integration with other ideas in coach development. For a start, because ideas are stated and shared, the approach fits well with the emphasis on facilitating coach development through social interaction (cf. Stoszkowski & Collins 2012). The process also caters to the common terminology and parametrisation of issues, which would seem essential for the development of communities of practice (CoP; Lave & Wagner 1996) or a genuine learning community (cf. Gilbert, Gallimore & Trudel 2009). As a final advantage, the social interaction with other coaches facilitates the generation of shared mental models (Cannon-Bowers, Salas & Converse 1993). This is very useful to coaching groups in general but is essential for AS in particular, where being able to anticipate and cater to others' actions is an important risk management tool (Mees, Sinfield, Collins & Collins, 2020).

Furthering this social element, the B5 makes use of structuring social interaction, an approach increasingly being used for similar developmental purposes in other specialist communities (e.g. Crane, Boga, Karin, Gucciardi, Rapport, Callen & Sinclair, 2019). In a supervisory environment, the approach follows the cognitive apprenticeship models already proposed in coaching (e.g. Cassidy & Rossi 2006) and other specialist support roles (e.g. Martindale & Collins 2010).

Finally, the B5 is clearly a Freirean approach (cf. Freire 1985) in that learners within the process are 'active' and critical, required to bring their own experience/knowledge to the process. Given that recent historical reviews have endorsed these ideas as desirable approaches to take (Chapman Richardson, Cope & Cronin, 2019), we are happy that the approach represents a positive development. In summary, there are several points of connection for this approach, supporting its theoretical grounding.

Part 2: Piloting the Big 5

Based on the ideas presented above, we wanted to pilot the use of the B5 approach to enhance coaching performance, reflection and integration across a development setting. Given the use of AS as a setting for much of the PJDM work to date, we decided to pilot the approach in this environment. As highlighted by previous authors, AS coaching is complex and dynamic, with serious and immediately observable consequences for poor decision making. Accordingly, we approached the Outward Bound (OB) Trust in the UK to partner with us on the project. Founded in the United Kingdom by Kurt Hahn and Lawrence Holt in 1941, the Trust is a major provider of outdoor education courses in the UK, offering a deliberate educational and developmental focus for attendees.

Method

Participants

Data were collected from Heads of Centre (HoCs, n=4) and their Learning and Adventure Managers (LAMs, n=5) at various centres across the UK. These individuals were experienced AS coaches, all holding a minimum of Level 3 (4 is the highest in the UK system) qualifications in multiple activities and all with a minimum of ten years' coaching and teaching experience at this high level. They held the responsibility for coach development in the centres and were the individuals who administered and subsequently evaluated the impact of the work. Each centre included between six and ten senior instructors (SIs, n=38), who

were the main focus of the intervention. All held numerous coaching qualifications which certified them to take full responsibility for students across a range of adventurous activities in a wilderness context, and all had a minimum of five years' experiencing these secondary activities.

Intervention and Procedure

Training on the B5 was provided by the second author, a highly qualified (multiple top-level coaching accreditations) and experienced (>30 years) AS coach and coach educator. At the time of the study, he had been collaborating with OB for over ten years as a consultant. He introduced the approach through a series of workshops and practical sessions, held during a staff training event for HoCs, LAMs and SIs. Following these sessions, participants had a four-week opportunity to engage with the approach, during which they could contact the second author and seek coaching on its application as required, in which the personal approach was further refined. A second session offering them the chance for questions and comment. All participants then used the approach through a twelve-month period of normal work, with B5 conversations used as the primary focus for coaching-based discussion with instructors. This was further supported by a formal session at the halfway point, plus ad hoc informal questions to the second author, throughout.

After this period, the second author conducted semi-structured interviews with the HoCs and LAMs on their experiences with the approach. All interviews were audio recorded, then transcribed for further analysis. The questions asked are reflected in the structure used in the Results section. The researcher's status and previous engagement with the participants promoted an open interaction, as reflected by the candid comments made, together with participants' willingness to adapt the approach to their own preferences and needs. Data presented reflect direct quotes from participants, with interpretation discussed and confirmed by both authors. Finally, reflecting the principles of member reflection (cf. Smith &

McGannon 2018), all participants were sent a copy of the results and invited to reflect on what was reported. Of relevance, over 85% of participants took up this opportunity, offering a consistent endorsement of what was reported and, in addition, further comments on how the approach had positively impacted the coaching of their direct reports.

Results

Likert Scale Data

As the participants providing the approach, HoCs and LAMs were first asked to rate its utility using a 11-point, negative to positive scale. The question asked and results are shown in Table 2. Data showed a positive attitude to the method as rated by the nine individuals (the HoCs/LAMs) for their own use (Mean = +3.1) and regarding its impact on the SIs with which they worked (Mean = +4.1).

Table 2 close to this point

Qualitative Data

As with the Likert responses, participants were generally positive about the approach. In this section, we report the results of the interview data, offering some quotes of their responses to the different questions posed. Quotes are labelled *H* or *M* to demonstrate the work role (HoC or LAM) and are then given a number to distinguish individuals.

1. Please could you describe how your centre has been using the approach?

Participants used the B5 approach in a variety of ways, but largely as a planning or review structure. *"Development, thinking about the day in advance, a review tool (pre, in, on action uses)"* -M1. This manager also reported post hoc use; "*as a tool to aid self-development; instructors have been given a copy of the questions to ask themselves (the word 'you' has been changed to 'I')* In addition, usage was often applied to particular challenges: "*I have been using the questions as part of incident investigation and discussions with staff. Really useful in this context* "- M4. Centre heads included the tool as part of their in-service

assessments. H3 reported use *"as an assessment tool during pass-outs[1] (The instructors know that this tool is used during pass-outs)* (H3).

As the tool became more widely accepted, it took on a role as a stimulus source for the evolution of professional practice.

Aa guidance document for conversations around various aspects of the trainer and roles. We started with it as a tool for developing technical competence and understanding. Subsequently, it has been used elsewhere in relation to facilitations skills, having conversations with clients etc. (M2)

In summary, the tool was used for various purposes but proved very popular. *"From my point of view a fantastic aid"*- M5.

2. What has been the outcome of using the approach?

As highlighted in the Introduction, the B5 structure generated several positive outcomes. These included a greater openness to challenge and share ideas. M3 reported "a *greater willingness for instructors to challenge each other, talk openly about safety and share when it is not quite right - check and challenge, improve CoP and safety culture"*. Or M4 – *"Opening up options and other ways of thinking about a task or activity. Helps some in their thinking that there is more than one option"*.

Participants were particularly impressed with the 'higher order impact of the approach. The B5 seemed to play a significant role in raising the level and quality of reflection. H2 suggested:

I would say that the spirit of them has had an impact, in terms of exploring options and encouraging folks to consider metacognition. They are part of a wider coaching and mentoring approach which our experienced staff have a solid understanding of and

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[1] An assessment of the instructor's ability to run a particular session

hence value the process. The other aspect is around building understanding of how staff

think and prefer to approach situations. This has been extremely useful in the way I

lead and manage.

Or as commented by M5:

My belief is that it has encouraged thinking and individuals who are more likely able to

make good decisions in the field when and as something changes. I also believe we

now have more instructors who ask less closed questions when they are asking what

should they do, and now ask more open questions that bounce and explore possibilities,

rather than wanting absolutes.

Several participants reported that the impact, whilst immediate in some ways, also

seemed to grow in others as the coaches got used to using it. H4 observed *"realising that we*

can follow the principles of the approach rather than be too rigid has enabled us to be

flexible and tailor the questions to the developmental needs of the session and instructor".

For others, the benefits became apparent in key pressure meets. *"During a recent accident*

review it was clear the improvements in the quality of instructors' decision making and

reflection, the learning achieved from the incident was significantly better" (H1)

Finally, participants made some interesting observations about the differential impact of

the approach on younger or more experienced coaches *"The principle of the approach has*

particularly helped to develop our newer instructors" (H2). Whilst H3 reported *"our older,*

more entrenched instructors have struggled because they haven't been encouraged to think in

the past! But those that have engaged in the new approach are noticeably more adaptive and

flexible".

3. Have the questions or their use been adapted in any way?

Perhaps reflective of the full-time, intense and close working relationships of the participants, all seemed comfortable with ongoing adjustment of the specifics whilst remaining with the spirit of the approach. M4 and M5 stayed with the original. "*Mine have stayed the same* " - M4 or "*We still have the five questions in written form that act as a guide and reference and on occasions used systematically* - M5.

Others moved to adjust the approach to their specific needs. M3 stated "*I would describe my practice as following the spirit of the questions rather than the word".* In similar fashion, Head of Centre H2 said

> As we have become more skilled at using the questions they have acted more as a guide and we might ask them in a slightly more fluid way, although still have all five questions answered I.E. the question 'What did you do?' might be rephrased to 'How did it go?' and then the person might bring out a lot without being led to it, needing less direct following questions. Or the question 'How many other ways could you have done this?' might be rephrased to 'What other methods might you choose?' All depending on the individual circumstance

4. Why have they been changed?

Most commented that as the instructors became used to using the questions, certain ones could be ignored, or the environment and time pressures dictated condensing aspects of the process. M2 stressed the reasons underpinning this evolution: "*Deeper thinking…and encouraging independent thinking".* Whilst enthusiastic about the principles of the approach, Head of Centre 4 stressed the need for use of the tool to satisfy a broader set of goals.

> The object is to build longer term relationships and understanding with staff and having a dogmatic approach to conversations rarely yields these results in my experience.
> There's an opportunity to use the questions in varying degrees of depth in conversations

depending on the level you are working at and the depth of understanding you share with someone. For example, an MIC [Mountaineering Instructor Certificate – a high level mountaineering award] that I've worked alongside a lot and got an understanding of their decision-making ability, I perhaps wouldn't spend a lot of time questioning them on the factors to select an option, instead focusing of what options are available to them – particularly those within and out with of organisational boundaries

5. What factors drove the need for change?

Whilst staying with the general principles of the B5 approach, both managers and HoCs saw evolution of the tool as essential to the culture they wanted to drive. *"Development of the instructors, they are smart and technically savvy. Adult thinking rather than parenting*" - H2. *"Strength of professional relationships and wider context, skills and behaviours associated with workplace coaching. Additionally, probably a little of me making them my own!* - M4.

Discussion

As a first field test of the tool, results seem very positive. Almost fifty well-qualified and experienced full-time AS coaching professionals found the use of the intervention to be both positive and adaptable to their individual needs. Future work must build on this promising start and look to examine impacts of the B5 in both depth (for example, in employing observation to confirm changes perceived by coach managers and coaches, looking at client ratings, etc.) and breadth (looking at a wider range of sports and coaching environments, reflecting the many differences across these; cf. Sinfield, Allen & Collins 2019).

In terms of the specific impacts, we were pleased to see the acknowledged contributions of the tool to staff's shared mental models, CoPs and metacognition. All these elements are important for optimum operation in group coaching sessions, so it is positive to

see the perceived impacts of this comparatively simple intervention in stimulating work on such comparatively complex constructs.

It is also worth speculating on the levels of knowledge required by participants before they may benefit from the approach. Our suggestion here would be that, so long as a coach can see alternatives to his or her planned actions, the B5 has something to offer. Indeed, as a method designed to encourage greater PJDM, regular use of the B5 acts to expose coaches to the need for and desirability of having a larger toolbox of alternative approaches. In short, as they are required to consider what else might work under different circumstances, coaches increasingly look for alternatives, and even seek these out offline. In other words, the intervention is acting to motivate coaches to expand their knowledge base. Such ideas form an essential part of the PJDM approach and the declarative knowledge needed can be taught from almost the first step on the coach development pathway (cf. Abraham & Collins, 2011).

Finally, it is important to note the alternative explanations which limitations in the design are unable to address. Given that this was a pre-post single intervention, we acknowledge the placebo impact which this may have had. In mitigation, however, it is worth highlighting the status of Continuous Professional Development (CPD) with this group of full-time professionals, factors which would suggest that they are sufficiently critical *and regular* consumers of new ideas to make this less likely as a sole explanation for the effects observed. In short, the novelty impact would seem to be a less likely explanation.

Conclusion

We would acknowledge the limitations of the study but, at the same time, stress the significant body of research and conceptual links which underpin the approach. Further investigation is clearly needed but, for the moment, the B5 would seem to be one viable and impactful tool amongst others we are aware of. We commend its use to coaches and coach educators.

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QUESTION	FACTORS INCLUDED
1. *What happened/what did you do?*	- Recall of event - Detail, level of comprehension - Same event in session - Supported with notes, video, grid ref, route name and pitch etc. - Technical/conceptual/procedural
2. *Describe the other ways could you have also done that.*	- Number of options available and why (instruction and/or context) - Detail and order of description - Procedural, episodic, semantic, conceptual
3. *What made you choose the way you did?*	- Choice factor for the option chosen - Situational awareness and demands
4. *What would have made you choose one of the other options?*	- Choice factors for the other options - Situational awareness and demands
5. *What would you do if? A real situation.*	- Application of understanding (Procedural, episodic, semantic, conceptual) - Promoting essential proactive adaptability

Table 1: Adaptations to the basic Big 5 for use with OB

	USELESS					NEUTRAL				VERY VALUABLE	
	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
LAMs	0	0	0	0	0	0	0	1	3	5	0
SIs	0	0	0	0	0	0	0	2	2	4	1

Table 2: Ratings of the approach by participants