Adventures in Coach Learning: Considering New Approaches

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Abstract

Understanding the most effective ways through which we can promote and deliver coach education and learning opportunities is vital to develop the sustainable workforce needed to both nurture talent at the highest levels and play a role in keeping people physically active. This article describes a research study that explored three different learning approaches (collaborative learning, problem-based learning and project-based learning) used in other sectors. The article discusses the available evidence for each of the learning theories and draws from case examples found during the research to explore how these learning approaches might be used in coach education.

Setting the scene

At the heart of coach education and coach development activity is the understanding that, much like the importance of identifying ways in which sport participants learn, it is also of great benefit to better understand the ways coaches develop and learn the skills they need to be effective coaches. Research examining coach learning identifies that there are a number of different ways coaches learn, including formal approaches like doing qualifications or attending courses, but also that coaches place value on more informal ways of learning such as reflection, experiential learning and learning from other coaches.[1] In addition, the mode in which this is delivered is a rapidly developing landscape. The ever-advancing development of technology as a way to communicate and share ideas has seen a recent surge in online activity by coach developers, and represents an exciting new

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[1] Cushion, C., Nelson, L., Armour, K., Lyle, J., Jones, R., Sandford, R. and O'Callaghan, C. (2010) *Coach Learning and Development: A Review of Literature*. Leeds: sports coach UK (now UK Coaching).

challenge for engaging coaches in the learning process, potentially providing useful tools with which coach education might further develop its practices.

Due to the relative infancy of education and development in coaching, relative to training conducted in other sectors, this article reviews three different approaches to learning (collaborative learning, problem-based learning and project-based learning) that have been used in other sectors. The article briefly reports on the available evidence that supports these learning approaches and draws from specific examples used in other sectors to provide suggestions for how these might be used within coach education.

Finding the evidence

In order to explore the evidence for the learning approaches selected, an examination of existing reviews was conducted. This approach provides a way to rapidly access bodies of literature in defined areas where it is known research already exists. We searched online for existing and recent (2010–2017) reviews on which to conduct our analysis. These searches looked primarily for formal systematic reviews (which use systematic methods to select and analyse existing research studies) and where these were not available the search was expanded to utilise non-systematic reviews (such as narrative reviews). Available reviews were read to ensure they were relevant, resulting in the use of 23 different reviews.[2]

The results

Collaborative learning: what is it?

Collaborative learning might be considered an umbrella term for a variety of learning practices that involve people working together to develop ideas, solve problems, or create outcomes or products. In a collaborative learning environment, knowledge and

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[2] Reviews used can be identified in the main report.

understanding is shared as learners work towards common learning goals. Learning collaboratively allows learners to access a wider knowledge base, consider differing perspectives, and challenges learners both socially and emotionally to listen, assimilate and construct views in relation to their own. The collaborative learning environment places less importance on what might be considered traditional learning activities (formal teaching, note taking etc) and more emphasis on discussion and group processes that enable learning to emerge and develop.

What evidence is there to support the use of collaborative learning?

Key messages that emerged from the review:

- The interaction of the group when engaging in collaborative learning is important to both the effectiveness of the group and how much people want to be involved in it. This was particularly true when group members failed to prepare or there was unequal input. In contrast, highly interactive groups allowed more knowledge sharing and resulted in higher motivation and satisfaction among group members.
- The role of a tutor or leader in guiding and facilitating sessions was perceived as important by learners and this role should, ideally, allow the group some control over the learning direction, but offer support with both content and the management of group processes.
- A number of technological developments including mobile technologies have enhanced the capacity for collaborative learning and their use has been associated with improvements in learners' understanding of concepts, how they can be applied, problem-solving skills, and engagement and motivation to complete tasks.
- Using collaborative learning in teacher training has proved to be effective when supportive leadership, cultures and practices are in place. This includes buy-in from key stakeholders and, where necessary, improving the digital literacy of teachers.

What does this mean for coach education?

Learning collaboratively offers coaching and coaches a valuable opportunity to share knowledge, develop professional practice and work with others to generate solutions to coaching problems. Moreover, evidence from teaching suggests that using collaborative learning as continuing professional development has benefits for both the teacher and their students (potentially, in the case of the coach, and the athlete).

Mentoring provides a good example of collaborative learning, where two or more people are working together to enhance learning. Recent technological advances offer the opportunity to consider how mentoring might be conducted online, as e-mentoring. Although empirical support for this is limited at this time, it may play a useful role in coach education. A successful example of how this might be conducted has been taken from Mentornet [3], a USA-based online service designed to match mentors and mentees in the STEM (Science, Technology, Engineering and Mathematics) subjects. Mentornet provides a good example of how a range of communication technologies might be used to encourage collaborative learning (eg online chats or Google Hangouts). Being able to engage in the mentoring process without having to be in a specific place and time may make connecting with mentors and mentees easier. Mentornet also provides a good example of processes that are designed to facilitate productive interactions and promote equal contributions, highlighted as important by the research above. For example, they provide weekly prompts or discussion points that account for the student's level of study and specific subject interests, and also provide suggestions for setting goals and boundaries for the mentoring process.

Other good collaborative learning practices that might be used by coaches include the development of working groups that set out to explore and provide solutions to coaching

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[3] http://www.mentornet.net

problems. The research findings above suggest that groups might find it beneficial to include the role of a facilitator, and to agree on some structural elements to the group processes that ensure fair distributions of the contributions made to the group. Such groups might also consider how technology can play a role in bringing the group together in a more virtual environment if, for example, there is a need to reduce geographical or cost barriers.

Problem-based learning

Problem-based learning is an approach used whereby the problem forms an initial starting base for learning where skills and expertise develop as a result of finding, creating and testing solutions. This helps learners develop not only subject-specific knowledge but also skills around problem solving. Savery (2006) suggests problem-based learning is a learner-centred activity that promotes responsibility and ownership, as well as collaboration with others. It relies on the provision of "ill-structured" problems (that represent real-world and messy problems) that allow the learner to explore and discover the nature of the problem and engage with the process to help resolve it. Problem-based learning often involves a degree of self-directed learning that is fed back to the group, and relies on good debriefing or analysis to establish effective solutions, or reflection on the process needed to get there.

What evidence is there to support problem-based learning?

Key messages that emerged from the review:

- Many of the reviews around problem-based learning focus on higher education and professional practice qualifications, particularly in health (eg doctors, nurses and dentists).

- Although there was a concern around the quality and quantity of research studies available, reviews demonstrated that problem-based learning was effective in improving or developing particular learner outcomes (eg examination scores).

- Reviews were more confident in suggesting that problem-based learning demonstrates some effectiveness in developing particular skills (eg applying concepts, communication skills, flexible working, critical thinking and self-directed learning).

- The research also highlights that the problem-based learning environment can result in more positive perceptions of the learning process and those within it, and that learners appear to enjoy this mode of learning.

What does this mean for coach education?

Problem-based learning may provide an effective way to work with, and develop solutions for, problems and issues that arise for coaches in the context in which they work. For problems to be effective learning tools they should be ill structured. This means that they are presented to the learner not as complete problems, but with the complexity of a problem in real life where the learner may have to go away to find out more information to first identify the problem and to develop workable solutions. It may be that coaching problems reflect the encounter of a specific situation that has not been faced before (eg how to prepare for a cup final) or it might be a problem related to a specific athlete (eg my athlete has developed unhelpful pre-competition nerves). For performance-based problems, such as those related to strategy or tactics, computer simulations might offer a valuable learning tool. London South Bank University[4] provides an example of this in the simulation game they generated in order to develop coaching and tactical skills among novice coaches. The programme enabled learners to apply selection strategies, physical conditioning programmes, tactics

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[4] https://www.lsbu.ac.uk/about-us/news/new-simulation-game-helps-sports-coaches-with-their-strategy)

and strategies to their virtual team and monitor their progress, and effectively monitor the effectiveness of their own solutions.

In addition to this, we should also recognise that problems in coaching do not necessarily have a performance focus and may, by their very nature, be more complex. Gilbert and Trudel (2001) highlight that simply presenting problems might not be effective in capturing the realities of coaching practice. For example in coaching practice, problems are not necessarily "presented" but need to be first recognised, acknowledging that problems emerge over time and might be influenced by events that have happened in the past weeks, months or even years. Given this, the most realistic problems for coaches to work with and learn from might be the actual problems they face. Here, some of the collaborative learning ideas discussed above might prove useful.

Project-based learning

Project-based learning shares many similarities with problem-based learning in that learning activities are often organised around working with a particular problem. However, the emphasis with project-based learning is the resultant project or product. Within a project-based approach learners are usually provided with specifications for a desired end product (build a rocket, design a website, etc) and the learning process is more oriented towards following correct procedures. The role of facilitator here is to provide more expert guidance and feedback within the process to achieve workable solutions to the problem.

As with problem-based learning, the learner is at the centre of the learning process, and learning requires the learner to be active in the process, rather than a passive receiver of information that is transmitted by a tutor, such as in more traditional classroom-based scenarios. This activity encourages the learner to develop skills to learn outside the classroom, which is a key attribute for successful professional practice. Project-based learning also contributes to the development of the softer skills often required for

professional practice, such as leadership, team building, communication and conflict resolution.

What evidence is there to support project-based learning?

Key messages that emerged from the review:

- Studies exploring this area need more robust designs to allow stronger conclusions about the effectiveness of project-based learning.

- Project-based learning has been associated with the development of a number of skills and outcomes including increased motivation, improved content knowledge and test scores, improved debating skills and the ability to synthesise and elaborate knowledge. Project-based learning may also help to develop greater creative and deeper thinking relative to more traditional instruction.

- When some key "enabling skills" are present, project-based learning might be more effective. These include higher levels of self-directed learning and self-management skills.

- The role of support in project-based learning is key to providing learners with effective guidance on project management and to facilitate, but not control, the environment to allow learners to develop a sense of control and autonomy over the project.

What does this mean for coach education?

Like the two previous approaches, project-based learning has been found to have a number of positive outcomes for learners; the active role of the learner in the process increases engagement and motivation for both the process and the subject area in which it is being used. Furthermore, the end product serves as an important motivator for learners. Project work for coaches might vary, for example coaches might learn about safeguarding and

welfare by producing a club guidance document, or may learn about coaching philosophy by drawing together an edited video of their coaching role models. Project-based learning might also serve coaches well in learning across different disciplines. For example, a coach might learn about biomechanical principles through producing a new piece of equipment for coaching, or learn about physiological testing by devising a way to test specific sport relevant parameters. A good example of this is where undergraduate media students at Canterbury Christ Church University develop a media project for a local football club. The football club meets with each group to describe their needs (eg to attract players for a new team) and the groups are asked to respond with a product that the football club are able to use. This is a good example of the support required for the learner during this process, highlighted by the research described above. Learners are introduced to principles and skills that enable them to work through the advertising process from start to finish, including meeting with the client and agreeing outcomes, generating a pitch to the client, and producing a "leave behind" portfolio of information that provides a rationale for their final product.

Summary and conclusions

In order to develop a better understanding of what methods of coach education work, it is evident that a greater focus on research exploring the benefits and challenges of these approaches within coach education is warranted. Furthermore, understanding the impacts of such learning on the athletes being coached may provide further evidence relating to the effectiveness of this learning.

Despite the lack of research evidence specific to coaches, there are a number of applications to coach education that can be developed from the available literature and examples in this article. Although deriving from different approaches, the themes of collaboration and problem solving are inherent across all discussions, and the support of

technology, and in particular mobile technology, appears to be an area ripe for further exploration. A key feature of all approaches is the role of the tutor or facilitator. An effective tutor or facilitator should be well equipped to be able to effectively guide and manage the group processes, while also providing a degree of autonomy for learners. Highlighted within all approaches is the importance of developing the skills of the learners to manage the styles of learning required to fully participate, and this is likely to be a pivotal first stage in successful implementation. Finally, and perhaps most essentially, is that the learner is at the centre of the approaches discussed here. Although there are opportunities here to enable coach educators to create impactful learning situations using these approaches, coaches too can drive their own learning process. Without waiting for specific coach education interventions, coaches may find it possible to implement some of these learning activities by engaging in collaborative forums with other coaches, setting up problem-solving working groups or considering how they engage in projects relevant to their learning needs.

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