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A Professional Judgement and Decision-Making Framework for Strength and Conditioning Coaching

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Overview

There has been recent critique of strength and conditioning (S&C) education for preparing individuals for the interdisciplinary nature of the S&C coaching role. Although recommendations have been provided, conceptualising and creating a framework for designing, delivering and developing theoretical, applied and experiential knowledge domains for the S&C coach is limited. This paper aims to present a conceptual framework for professional judgement and decision-making within S&C coaching. The framework involves six interrelated knowledge domains, based upon coaches understanding of 1) the 'WHO' (i.e., their participant); 2) the 'WHAT' (i.e., the principles of S&C and the demands of the sport / discipline within which their participant competes); 3) the 'HOW' (i.e., principles of learning and skill acquisition); 4) the 'COACHING PROCESS' (i.e., their planning, delivering and reflecting [P-D-R] practices); 5) the 'CONTEXT' (i.e., the context, culture and politics within which they operate); and 6) their 'SELF' (i.e., their own existing knowledge, beliefs, values and behaviours). This framework could be used for aligning S&C coach education with the requirements of the S&C coach role alongside being a useful framework for continued professional development within the industry.

Introduction

Recently, the popularity of strength and conditioning (S&C) has increased with increased career opportunities available within the industry across multiple coaching contexts (e.g., professional sport to talent development to the fitness industry). Such popularity in the industry has resulted in increased S&C education provision via degree programmes (i.e., undergraduate and postgraduate), coaching qualifications and accreditations within S&C associations (e.g., United Kingdom Strength & Conditioning Association; UKSCA). Although the volume of S&C educational provision has increased, a recent publication highlighted how leading practitioners have questioned the standard of S&C graduates in the UK for working within professional football (66). Springham et al. (66) and other professional practitioners (69) have raised concerns: 1) the disconnect between the skill sets required to work as a S&C coach within professional football and those being taught by Higher Educational institutions, and 2) the lack of communication between employers and Universities in developing 'fit for purpose' S&C education. Springham et al. (66) set out to address these issues by offering a checklist of key skills required by S&C coaches to work in professional football, and directing degree programmes and S&C coach independent learning towards these skillsets. Overall, this work supported recent recommendations emphasizing the importance of applied coaching skills over standalone exercise science knowledge within S&C (45, 68). While we applaud the work of Springham and colleagues we still believe further work is required to move towards an agenda of developing professional practitioners within S&C. This would include bridging the gap between the often-prescribed standalone areas of knowledge and skills towards an integrated approach that focusses upon the development of professional competence.

Therefore, this article aims to introduce S&C coaching as a professional judgement and decision-making (PJDM) process and present a conceptual framework for PJDM within S&C coaching. It is hoped that this article will stimulate further debate in the field, provide a framework for S&C coaches to think about their practice and future development needs, whilst supporting S&C education providers in developing professional competence in both aspiring and experienced S&C practitioners.

Positioning S&C Coaching as a PJDM Process

In seeking to move the agenda for the professionalisation of S&C coaching forward we suggest the need to (re)define the role of S&C coaching as a PJDM process and by doing so, highlight the need to (re)position the focus of education and training accordingly. Positioning S&C coaching as a PJDM process acknowledges and builds upon recent debates about the nature of sport coaching (57) and the implications for learning and professional development (2). Drawing upon the work of Kahneman and Klein (32), PJDM occurs in three forms; (i) slow and deliberate, (ii) fast and intuitive (32) or (iii) recognition primed decision-making, (i.e., whereby some time is available for thought, but the required response time is relatively short (40)). These forms of PJDM align with the commonly held view of coaching being about planning (i.e., slow and deliberative), delivering (i.e., fast and intuitive or recognised primed) and reflecting (i.e., slow and deliberative). For example, S&C coaches are required to make intuitive, 'delivery' based decisions (e.g., providing feedback to address lifting technique) to more deliberate, 'planning' based decisions (e.g., the periodisation of an annual macrocycle (5)).

Based upon this premise that S&C coaching is a PJDM process, it is important to consider what decisions coaches need to make and what knowledge they draw upon to make such decisions. Whilst this was not considered from a PJDM perspective by Springham et al. (66), this was the crux of their recent critique of the development of S&C graduate knowledge and skills. However, without research evidence on expert S&C coaching, with only limited evidence available (19, 23, 70), a challenge for S&C education providers is how to appropriately design, develop and deliver a combination of theoretical, applied and experiential knowledge domains within their programmes - definitely not an easy task!

As such, our recommendation, and the aim of this paper, is to present a conceptual framework for PJDM within S&C coaching. Such conceptual frameworks have recently been presented and used within Sports Coaching including the International Council for Coaching Excellence standards for higher education sports coaching degrees (52), the European Sports Coaching Framework (54) and by several national governing body level 4 coaching qualifications (3). Till and colleagues (76) recently presented a decision-making conceptual framework for S&C coaching and this paper aims to discuss and utilise this decision-making framework to help structure and enhance S&C education and CPD programmes within the S&C industry.

A Framework for PJDM within S&C Coaching

Previous work within Sports Coaching (15) referred to three key knowledge domains for the coach; Professional Knowledge, Interpersonal Knowledge and Intrapersonal Knowledge. Recent work has built upon these domains (2, 3, 5, 54, 55), to provide six broad interrelated knowledge domains and the conceptual framework for PJDM within S&C coaching (76). The conceptual framework (Figure 1) is based on the premise that the strategies, actions and behaviours S&C coaches employ are based on their understanding of six broad overlapping and interconnected domains of knowledge. The six broad domains are:

1. The 'WHO' (i.e., their participant),
2. The 'WHAT' (i.e., the demands of the sport / discipline within which the participant competes and the principles of S&C),
3. The 'HOW' (i.e., principles of learning and skill acquisition),
4. The 'CONTEXT' (i.e., the context, culture and politics within which they operate), and
5. Their 'SELF' (i.e., their own existing knowledge, beliefs, values and behaviours).
6. The 'COACHING PROCESS' (i.e., their planning, delivering and reflecting [P-D-R] practices)

Insert Figure 1 near here

These six broad domains of knowledge illustrate the interdisciplinary nature of S&C coaching and provide a conceptual 'toolbox' for coaches and coach educators to make sense of their experiences and identify opportunities for positive change. Although these six domains are presented as standalone knowledge areas, it is important to recognise that there are strong connections between each of them (illustrated by the arrows in Figure 1). The following sections overview each of the six broad domains and provide examples of 'thinking tools' (i.e., concepts and theories) to inform S&C coach's PJDM and education. Table 1 summarises the six domains, presents 'thinking tools' related to these six broad domains and provides example learning outcomes that could be used to build education, learning and professional development programmes for S&C coaches.

Insert Table 1 near here

The 'WHO'

Developing an in-depth understanding of a S&C coach's participant (i.e., the 'who') is vital to undertake a comprehensive needs analysis process. This needs analysis can be informed by theories or concepts from multiple sport science disciplines (e.g., biomechanics, physiology, sociology and psychology) and helps explain differences between individuals to develop group and individual goals (55). Table 1 summarises a range of 'thinking tools' (with example references) that can be drawn on to inform our understanding of the participant (the 'who').

Within S&C, previous work (47) has proposed a physical needs analysis process including: 1) Performance Needs Analysis (Demands of the Sport/Activity and Individual), 2) Test Selection, 3) Conduct Testing (Interpretation, Analysis and Evaluation of Results), and 4) Programme Design and Implementation. However, such a process may not fully represent the complexities of the holistic (i.e., bio-psycho-social-technical-tactical) needs of individual athletes due to the primary focus upon physical performance and development. These thinking tools could help coaches understand holistic needs for their participant while providing methods for data collection, analysis and evaluation to assess individual strengths and weaknesses to develop appropriate objectives.

The 'WHAT'

The 'what' within S&C relates to understanding exercise technique, the participant's sport or activity demands and the scientific principles of training. This 'what' knowledge underpins prescribing safe and effective S&C practices and training programme design for optimising physical adaptation. Table 1 summarises a range of 'thinking tools' that can be drawn on to inform our understanding of the 'what' within S&C (frequently the predominant subject matter within S&C education programmes (45) and key S&C resources (25)).

The 'what' may also refer to the needs of the S&C coach based on the analysis of the job (6, 80) suggesting that further education of 'what' aspects may be required within S&C coach education. For example, the knowledge of psychological techniques (59) are important due to the high contact demand of S&C coaches with their participants and other

staff members. S&C education content may not just relate to the traditional scientific knowledge of S&C and by broadening understanding of the requirements of their role may allow coaches to develop more effective methods to implement within their practice (i.e., more tools within their toolbox).

S&C coaches are required to undertake a needs analysis of the sport or activity (the 'what') alongside a needs analysis of the individual (the 'who') to inform their S&C programmes and practice. For example, S&C coaches working in football need to understand the activities undertaken during match-play, the frequency and length of high-intensity efforts and how these vary by position (10). However, S&C coaches should also work with sport coaches to understand their playing style and the physical demands that this places on the players. This approach has recently become popularised in soccer (12) and rugby (73) and is termed 'tactical periodisation' (71). Such an approach requires coaching staff in a sporting environment share an understanding of the demands of the game. This helps integrate technical, tactical and physical training to help players meet the game demands and tactical approach.

The 'HOW'

A central aspect of S&C coaching is supporting athlete's learning and development; indeed, recent accounts have suggested that the practice of S&C coaching could be enhanced by re-conceptualising it as a form of teaching (26). In this sense, theories, concepts and frameworks from skill acquisition and the broader learning and development literature can be drawn on to inform the strategies that we use to support athletes' learning (56). The nature of the training activity (e.g., constraints used, load, intensity and volume) needs to be purposefully designed to meet the specific physical, psychological and social needs of the athlete. Coaches need to also carefully consider what behavioural strategies they employ before, during and after training to support athlete engagement and learning through the training activities.

Engaging with these ideas encourages us to spend time considering how we structure the training activity and employ behavioural strategies to support athlete's engagement and progress towards the desired objectives. For example, if speed development is the goal then an elite adult athlete may require low volume, high-intensity sessions with long rest periods. In this context a coach might seek to employ behavioural

strategies that generate clear, unambiguous feedback for the athlete that supports them to make sense of their technique (i.e. augmented feedback offered by the coach based on their observation) and performance (i.e., data from timing gates; (81)). However, when working with younger athletes, coaches may need to consider their motivation to invest in high intensity training and think about how they can stimulate their enthusiasm through gamification (e.g., games, races and relays), whilst also retaining a focus on the appropriate technical principles through observation, cueing and correction of movement, to enhance competence, motivation and physical adaptation.

The balance and blend of behavioural strategies that S&C coaches employ when working with athletes has gained increased attention within the literature (44, 66, 70, 77, 82). Indeed, coaches (77) and athletes (70) have both reported the significant influence that the behavioural strategies coaches employ have on athlete experiences and opportunities to learn. Although the answers are not straight forward, exploring theories, concepts and frameworks from skill acquisition and learning encourages us to carefully consider how we design and shape the constraints of training activities and align appropriate behavioural strategies to support athlete's engagement and progress towards the short-, medium- and long-term objectives.

The 'CONTEXT'

A S&C coaches' practice will always be influenced and shaped by the 'context' within which they work. For example, Springham and colleagues (66) identified the two avenues for a S&C coach to work within professional football: First Team or Academy. Whilst this is a contextual factor that requires understanding due to the differing demands of the context (i.e., short-term winning focus vs. long-term development focus) further contextual understanding is required. This can include the organisation's values, physical constraints (e.g., facilities), the people (e.g., club officials, support staff, players, parents), traditions, resources, and accepted practices that may all impact upon a S&C coach's practices and development. Therefore, practitioners should draw upon a range of concepts and theories from social science to understand this layered context (57) and develop strategies to achieve success within these constraints (e.g., establishing role clarity across the group, developing a shared vision and purpose). Understanding the dynamics of power relationships and the influence that dominant traditions have on the behaviour of athletes

and coaches may be useful in identifying and overcoming flawed approaches to S&C training (22).

'SELF'

An S&C coach's understanding of themselves (i.e., their beliefs, behaviours, skills and values) is crucial for future career success and determining quality coaching practice and ongoing personal development (11). Key to understanding and developing 'self' are both intrapersonal (e.g., coaching philosophy and values, lifelong learning, self-regulation) and interpersonal (e.g., social context, relationships) knowledge. Springham and colleagues (66) identified a range of interpersonal skills required within professional football including communication, relationship building, organisation and time management skills, adaptable, willing to learn, creative and conflict resolver. Key common themes of successful coaches have been related to having a desire for coaching, a thirst for knowledge and a quest for self-improvement alongside clear values, beliefs and goals (39). These are key elements within a S&C coach's development and should therefore be a focus of education programmes and CPD opportunities.

The 'COACHING PROCESS': Planning, delivering and reflecting (P-D-R)

The preceding sections have overviewed several theories, concepts and principles that can be used as 'thinking tools' to facilitate S&C coaching practice. Given the breadth and depth of factors covered, the challenge for S&C coaches is to integrate these interdependent areas within the coaching process and within their PJDM (1, 2, 54).

Effective planning 'begins with the end in mind' (16) involving identifying future performance relative to the participants current context to allow the formulation of goals over time. This entails thoughtfully considering the 'who', 'what' and 'how' to develop a progressive, coherent, and 'nested' coaching plan (2). If this is done well, it helps provide a 'tentative' map to follow. Within the S&C literature, an extensive body of work refers to the principle of periodization when considering medium to long-term planning (9, 24). Whilst this body of work and the broader principles of periodization help provide a useful platform upon which training plans can be developed, further consideration of the 'who', 'what' and 'how' principles are encouraged linked to the 'context' and 'self' development.

S&C coaches can only intervene if and when they notice the need to act in the first place. This relies upon coaches consciously attending to moments of importance or disruption within their coaching. What is worth noticing then becomes an important matter for S&C coaches to consider and should be a part of the deliberate planning process to clarify expectations (28, 52). Therefore, training programme design only constitutes a small element of the planning process. Instead, it is recommended that a dynamic, adaptive and ongoing approach is used, allowing coaches to respond to the changing needs of their athletes within the sporting context (2, 33, 34).

The Coaching Practice Planning and Reflective Framework (CPPRF: (52, 54, 55)) is a thinking tool that S&C coaches can use to clarify expectations and promote connections between their desired objectives and the associated coaching strategies. The CPPRF (see Figure 2) encourages coaches to consider the relationship between their P-D-R practices and explore the relationship between their:

- 1) coaching objectives and goals,
- 2) learning activities,
- 3) coaching behavioural strategies, and
- 4) athlete engagement and learning.

Insert Figure 2 near here

S&C coaches are essentially equipped with two pedagogical strategies (described in 'how') to support their athlete learning and development: 1) the way a session is structured for their athletes (e.g., the structure and type of 'learning activities'), and 2) the coaching behavioural strategies they employ to support athletes before, during and after an activity. Thus, using the CPPRF as a 'thinking tool' encourages S&C coaches to deliberately plan their learning activity structure (e.g., weight programmes, drills, circuits, games) and behavioural strategies (e.g., open or closed questioning; timing and type of feedback; demonstrations; hustles; instructional prompts) to maximise athlete engagement and development opportunities (53).

As a planning tool the CPPRF encourages coaches to think about their coaching goals and alignment with the:

- 1) Participants needs (i.e., the 'who'),

- 2) Activity demands (i.e., the 'what')
- 3) Learning environment (i.e., the 'how')

This planning process should constantly integrate and align these interdependent areas. This enables coaches to explicitly plan for and implement S&C coaching that is developmentally appropriate, builds on where the athlete has come from and helps prepare them for where they wish to go (54). A clear understanding of how each coaching interaction is nested within the long-, medium- and short-term objectives of an overall developmental performance system enables S&C coaches to make more informed adjustments from their plans based upon their observations, evaluations and reactions to the athletes performance within the training environment (2, 29, 33). Therefore, the capacity to 'think on our feet' and make decisions quickly (66) is important and often referred to as reflection-in-action (37, 63). Reflection-in-action assumes that problems do not always present themselves but arise because of a mismatch between the session goals/expectations and the reality that has emerged from putting the plan into practice. By increasing the clarity of coaches expectations before an event can increase the opportunity to reflect-in-action, which in turn also provides a powerful stimulus for reflection-on-action (i.e., after the coaching event).

A coach's capacity to 'think on their feet' can develop with time and experience (35, 36). In turn they can develop the capacity to consistently take the first option and successfully satisfy the demands of the situation (18, 36). However, such intuitive judgements can develop into overconfident and biased judgements known as 'heuristics' (79). For example, a coach may have formulated an intuitive response to a situation where athletes are not achieving the correct depth of squat. The coach intervenes with the same course of action for every participant as it has worked numerous times in the past. As a result, the intervention works for some but not for others as it has failed to satisfy the specific individual needs of each participant. Thus, coaches should be guided to reflect-on-action to identify their own biases within their practice, allowing them to unlock unspoken forms of knowledge (31). Such bias's may be derived from each of five domains (understanding or WHO, WHAT, HOW, CONTEXT, SELF) and through identifying the origin of the bias a coach can seek further knowledge and better guide their judgments in practice.

Reflective practice is generally a connection between planning and delivery. Coaches can develop a better appreciation of their experience and become more skilful in their practice (64). This can include reflection and evaluation of training sessions or training programmes from a meso and macro level. Programme reflection and evaluation may entail S&C coaches assessing changes (e.g., improved strength, fitness) that have occurred due to their programme to evaluate the improvement of their athletes. For example, S&C coaches may evaluate the seasonal changes in physical performance of their athletes. These evaluations will most likely display large inter-individual variability in training response (74). S&C coaches should not only consider the change in performance but also reflect upon the plan and delivery of their programme related to the 'who' (e.g., athlete's motivation), 'what' (e.g., volume and load) and 'how' (e.g., coaching behaviours used).

Finally, in shaping their P-D-R strategies, S&C coaches should consider their insights, ideas and understanding of the other practitioners involved in the programme (e.g., coaches, physiotherapists, sport scientists; (66)). Each discipline offers perspectives, which should be harnessed to formulate a shared understanding within a multidisciplinary team about 'what' to prioritise and work on, and 'how' to support the athletes' to meet their needs. This is exemplified within the idea of a 'performance model' (60) and 'tactical periodization' (12, 71). Therefore, openness, collaboration and communication are key cultural aspects for an effective high performing team in sport (21).

Moving Forward: Strategies to Enhance S&C Coach Education

This article has presented and summarised a conceptual framework for PJDM in S&C coaching that could be used to develop aligned and coherent S&C coach education. This framework highlights the S&C coach as an interdisciplinary practitioner working in complex environments who needs to think in complex ways for effective S&C practice. Clearly, this level of practice does not just appear one day; and is the result of significant learning. However, any S&C coach, regardless of level (i.e., novice to expert), can benefit from considering S&C practice as a PJDM activity using the "thinking tools" from the six broad domains discussed.

Whilst, Springham et al. (66) offered some interesting and useful strategies for pedagogical steering within Higher Education, it may be more appropriate to utilise constructive alignment as a learning approach (7). A constructively aligned approach to

learning would involve developing clear programme / learning objectives rather than focusing upon teaching, learning and assessment strategies per se. A range of example learning outcomes are presented in Table 1 aligned to the six interrelated knowledge domain areas of the PJDM framework. These learning outcomes aim to summarise the knowledge, skill sets and actions required based upon work within S&C (78) and coaching (4, 38). S&C educators should consider the levelness of these learning outcomes based upon the level of education (e.g., undergraduate and postgraduate qualifications) and expert coaches. This could be a consideration for S&C associations in how they develop appropriate learning outcomes, content and assessments for 'professional' or 'high achieving' coaches above current accreditation levels. Further research examining S&C coaching may be required to fully understand the needs of the S&C coach's role, responsibility and requirements to influence such learning outcomes.

The PJDM conceptual framework may help S&C coaches, across a range of levels, evaluate their current practice, review their strengths and weaknesses, and plan personal and CPD activities. Young (83) recently proposed a self-evaluation tool for professional development proposing a range of developmental areas but a more structured framework may offer a novel approach for coaches in thinking about their athletes, their activities and how they behave while allowing tools to aid planning, delivery and reflection of their S&C practice.

Conclusion

Based on the recent critique of S&C education, this article presents a conceptual framework for PJDM within S&C coaching for designing, delivering and developing theoretical, applied and experiential knowledge domains for the S&C coach. The decision-making framework involves six interrelated broad knowledge domains, based upon understanding 1) the 'WHO' (i.e., their participant); 2) the 'WHAT' (i.e., the principles of S&C and the demands of the sport / discipline within which the athlete competes); 3) the 'HOW' (i.e., principles of learning and skill acquisition); 4) the 'COACHING PROCESS' (i.e., their planning, delivering and reflecting [P-D-R] practices); 5) the 'CONTEXT' (i.e., the context, culture and politics within which they operate); and 6) their 'SELF' (i.e., their own existing knowledge, beliefs, values and behaviours). A range of 'thinking tools' and example learning outcomes related to the six broad domains are provided that may support the development

of coherent and aligned S&C education related to the demands of the S&C coach. S&C educators should aim to utilise a constructively aligned approach to learning that develops learning outcomes based upon the levelness of the coach (e.g., undergraduate student to expert coach) and design learning activities based upon such learning outcomes. This framework could be used for aligning S&C coach education with the requirements of the S&C coach role alongside being a useful framework for continued professional development within the industry.

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Figure Legends

Figure 1. A Professional Judgement and Decision-Making Framework for Strength and Conditioning Coaching (adapted from (2, 54, 55, 76))

Figure 2: The Coaching Practice Planning and Reflective Framework (adapted from (52))

Table 1. Professional Judgement and Decision-Making Framework: Summary of ‘Thinking Tools’ and Example Learning Outcomes

Knowledge Domain	‘Thinking Tools’ (Theoretical, Applied or Experiential Knowledge / Skills)	Example Learning Outcome
Understanding the ‘WHO’	Age (i.e., chronological, biological, developmental, training age; (42)), sport and positional demands (17), gender (41), athletic (fitness) profiles (50), recovery (61), wellbeing (51), sleep (62), injury and health history (30), psychological characteristics (43), motivations (67), social support (e.g., parents, peers, coaches (72)), data collection (including use of equipment; (14)), data analysis (75).	<ul style="list-style-type: none"> • Evaluate the physical, psychological and social needs of your athletes using theoretical and evidence informed (including data collection) knowledge.
Understanding the ‘WHAT’	Physiology (e.g., metabolic demands (20)), Biomechanics (e.g., muscular action (46)), technical models for exercises (56), principles of training, periodization and adaptation (8), measurement and evaluation (48, 49), training modalities (e.g., warm up (27)), exercise technique (13), injury and injury prevention (58), nutrition (65), psychology (67).	<ul style="list-style-type: none"> • Establish clear technical models of strength and conditioning related exercises and activities. • Critique the acute and chronic adaptations to training interventions using theoretical, research evidence and data collection. • Evaluate the demands of the sport / activity within which you work using theoretical and evidence informed (with relevant others [e.g., coaches]) knowledge.
Understanding the ‘HOW’	<p>Training activity design (e.g., session design, organisation, management); and</p> <p>Behavioural strategies might include silent monitoring, motivation (e.g., hustle), cueing, instruction, feedback (e.g., verbal and visual), scaffolding, communication (e.g., facial expression, gesture, positioning and posture), demonstration, questioning, humour, enthusiasm and energy (44, 66, 70, 77, 82).</p>	<ul style="list-style-type: none"> • Consistently deliver appropriate, aligned and inclusive training activities to achieve participant objectives primarily focussed upon movement, strength, power, speed, agility and endurance capabilities. • Consistently use a balance and blend of behavioural strategies to support athlete’s engagement within and across training activities and facilitate meaningful progress towards the desired objectives.
Understanding the ‘CONTEXT’	Organisational values, physical constraints (e.g., facilities), working with people and multidisciplinary team, traditions, developing a shared vision, establishing role clarity, alignment of behaviours, power relationships, developing trust, accepted practices.	<ul style="list-style-type: none"> • Reflect on the cultural norms and policies of relevant groups, institutions and stakeholders (e.g. participants, other coaches, clubs, schools, NGBs) in the communication, design and delivery of coaching programmes.
Understanding ‘SELF’	Interpersonal skills including social context, relationships, communication (oral, written and visual), relationship building,	<ul style="list-style-type: none"> • Independently reflect upon own knowledge, skills, beliefs, values and behaviours to professional development, learning and self-regulation within the industry.

developing trust, organisation and time management, and conflict resolver.

Intrapersonal skills including coaching philosophy and values, beliefs and goal setting, lifelong learner, self-regulation skills, independent, adaptable, willing to learn, and creative

Coaching Process
'Plan, deliver,
review'

The coaching process should entail the knowledge and skills from the above five domains but is mainly focussed upon:

- Planning - organisation of training including nested planning, periodisation, goal / objective setting, expectation setting, training activity design and coaching behaviour design, integration and alignment of 'who', 'what' and 'how'.
- Delivery – implementation of learning activities and coaching behaviours before, during and after practice.
- Reflection - Reflect-in-action - Observe, evaluate and react to proceedings within session; Reflect-on-action – reflect and evaluate post training session or post programme (e.g., microcycle, mesocycle) using quantitative and qualitative methods and views of others.

- Communicate effectively with stakeholders

The Coaching Process involves utilising and applying the learning outcomes from the above five areas. This includes:

- Develop appropriate and aligned short, medium and long-term objectives for their participants
 - Plan individual and group training programmes to achieve short, medium and long-term objectives
 - Make informed and justified 'in-action' changes to training activities and coaching behaviours within coaching sessions to support achievement of participant objectives.
 - Reflect, analyse and evaluate training session and programme design and delivery using multiple sources of evidence within a multi-disciplinary team.
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