

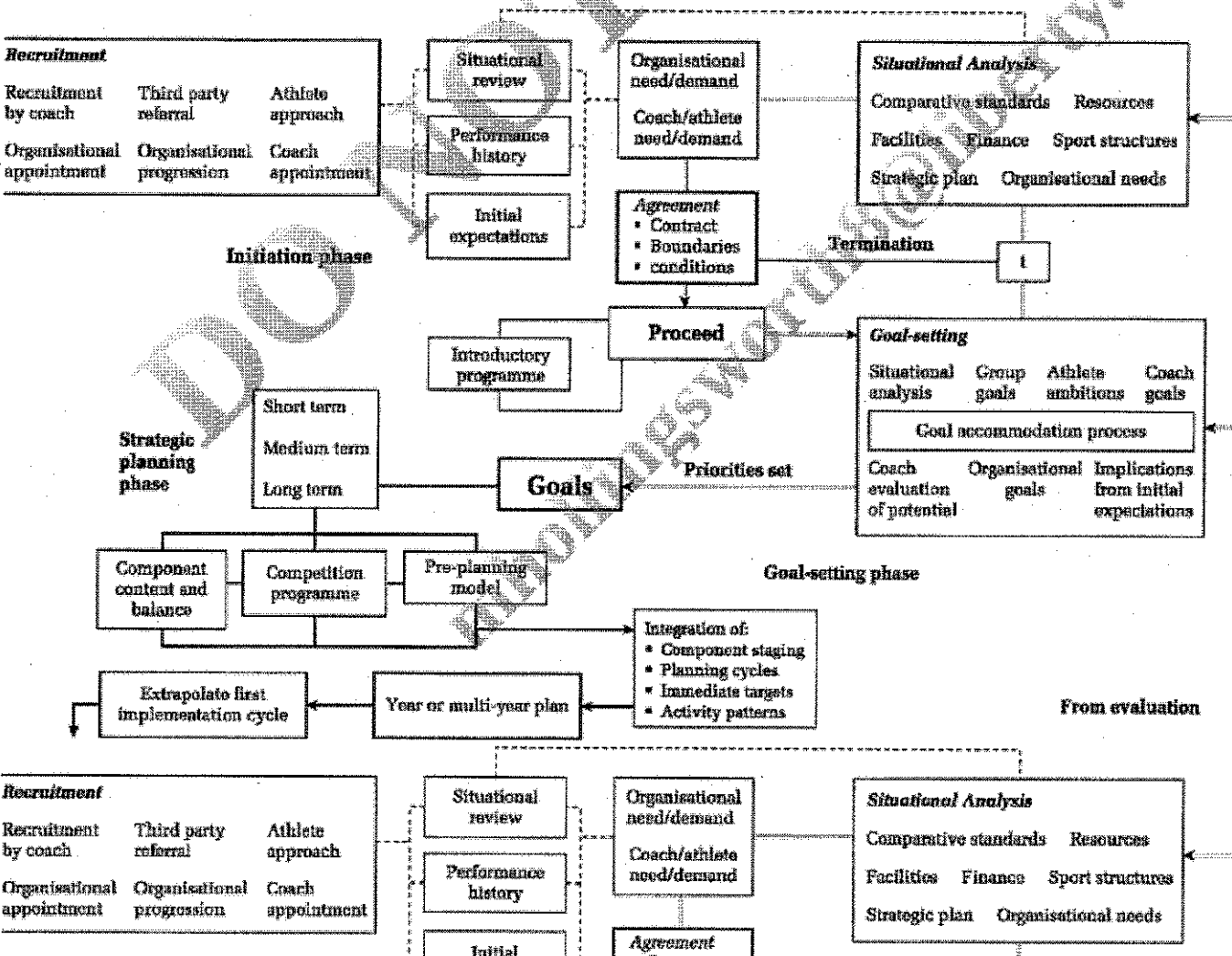
? QUESTION BOX

Can you think of additional features of sport coaching that should be considered building blocks in devising an ideal model? Of those already identified, are they equally weighted or are some more essential than others?

THE MODEL

The third part of the model is a visual representation of the component parts of the coaching process and the relationships and sequencing between components. Figure 7.2 illustrates the model in a two-dimensional diagram. At this point it is worth reiterating that the model may be more detailed than the others available, but it also demonstrates a number of the weaknesses of the model 'for'. The chief of these is that the component parts and sub-processes are identified but the relationships between them (including the means by which these relationships are effected) cannot easily be illustrated in such diagrams. This is a limitation of model description, but also reflects our current dearth of knowledge about what strategies and behaviour work most effectively for which athletes and in which circumstances.

Nevertheless, there has been an attempt to emphasise the feedback circles and decision points within the process. The mechanisms for executing this decision making will be dealt with in the next chapter. It will have become obvious that the coaching process has an element of layering, also termed nested, embedded or consequential. Actions taken are informed both by more strategic concerns and by immediate precursors. These actions then impact on the actions that follow. The result is that the process has a constant quality of cyclicity and reference; the constant regulation and recreation of the process is a feature of sport coaching. We have thus far failed to devise appropriate means of illustrating this quality in diagrams and models.



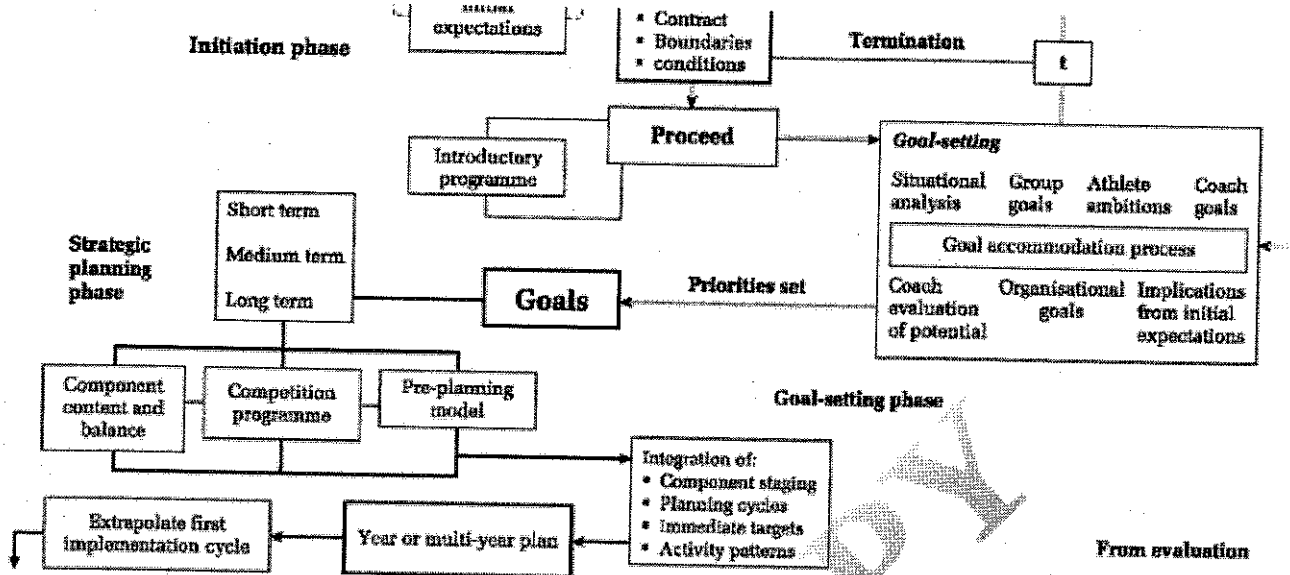


Figure 7.2 The coaching process.

★ **KEY CONCEPT**

Sport coaching is characterised by operating within the constant influence of more-strategic, intermediate and more-immediate goals. This results in a property of cyclicality and continuous cross-referencing that impacts on day-to-day practice and coaching expertise but is difficult to describe and illustrate.

The model of the coaching process can be summarised in the following way (and treated as a key concept):

★ **KEY CONCEPT**

The sport coaching process is a cyclical series of activities centred on a dynamic set of performance goals. The process is serial and continuous. A variable pattern of coach interventions, athlete performance and organisational activity is devised, coordinated and regulated to respond to a set of external constraints and personal and performance goals, which are time dependent. A flexible model of expectations, based on current status and identified performance targets, is generated and used to regulate the process. Constant feedback loops and a series of threshold decision points (indicated as 't' in diagrams) regulate the implementation of the model.

EXTENDING THE MODEL

We have stressed repeatedly that this is an ideal model and not one that coaches will attempt to adopt or implement. It is designed to guide research, inform education and training, and may be valuable for analysing and reflecting on practice. The practice of coaching is much more complex than can be easily conveyed in models of this kind. Coaching intervention and interpersonal behaviour will be much more context- and response-dependent, and there is a need to explain how the coach copes with not only the complexity and contingency, but also the more routine management of a coaching process that is often described as apparently tacit and intuitive.

It is our intention to offer a tentative conceptualisation of how the coach operationalises the coaching process, which we will do in the succeeding chapter. This should be seen as part of the model, and once again we offer this as a stimulus to research. In the meantime, we have identified three specific examples of how the model is likely to be adapted by coaches. We examine the issues of sport specificity, systematic coaching practice and building research into the model. The chapter concludes with an acknowledgement of the model's limitations.

In the previous edition, the research used to identify potential thresholds for coaching intervention also highlighted differences between sports. However, an idealised conceptual model is designed to apply to all coaches and coaching processes. Of course, when the reality of practice is mapped onto the model, the resultant pattern will be different for all coaches and most sports. It is partly this diversity that necessitated the ideal model approach. We cannot hope to describe all of the variation in practice. Nevertheless, we can look for some regularities in the way that the model might be adapted for different sports.

If the model is not appropriate for describing a particular coaching practice, this should be evident in the assumptions or building blocks. Remember also that the process was described in some detail and it has already been acknowledged that a partial application of the model is possible (an example is the club coach versus the more episodic representative squad coach). Research is likely to show that the key phases are emphasised and balanced differently across sports. Figure 7.3 lists the key stages in the model. Sport-specific differences will lead to differential emphases on these stages of process components. Given the process characteristics of the coaching process, these stages are interdependent and cyclical. They form a useful reference point for identification of the component elements of coaching expertise and for research and education.

Developing the conceptual framework has inevitably emphasised the common, generic elements of the coaching process. Nevertheless, one of the recurring themes within the text is the variability in the operationalisation of the coaching process, and much of this stems from the nature of the sport itself. The conceptual framework must therefore be able to account for variability in practice in relation to sport specificity. Consider the distinctiveness of performance-routine sports such as gymnastics and ice dance, with their technical rehearsal demands and quality judgements of performance in comparison to the repetitive, uncontested, volume training of long-distance athletes, cyclists and rowers. These can be contrasted with the technical and tactical drills/skills-led interactive practices and game routines of team sports such as basketball and hockey. Each of these sports brings its delivery challenges and different coaching practices. Table 7.1 indicates differences in sports by the nature of their competition demands, and illustrates the impact on the planning aspect of sport coaching.

Initiation
Goal-setting
Strategic planning
Regulation
Preparation
Competition

Figure 7.3 Principal model phases.

Table 7.1 Planning issues related to competition cycle

<i>Competition category</i>	<i>Characteristics</i>	<i>Planning issues</i>
Target sports (e.g. rowing, swimming, athletics, gymnastics)	Tendency to have on- and off-season; major competitions can be distinguished from more minor ones; extended periods of preparation; most often individual sports	Few constraints to cyclical planning; detailed planning framework with periodised cycles; action plans for 4–6 weeks; coach's intention is to adhere to plan; maintenance period depends on competition schedules
League sports (e.g. hockey, soccer, rugby, netball)	Extended and regular competition programme; results are aggregated for success; often team sports; normally performance composed of multiple components	Longer-term planning is more difficult; priorities influenced by the result and imminence of competition; contingency and crisis planning common; detailed planning is unlikely beyond short cycles
Circuit sports (e.g. skiing, tennis, golf)	Extended competition programme but results are normally not aggregated; major and minor competitions, with some interdependence; multiple performance components	Maintenance of 'form' with peaks for identified targets; planning for overall progress; comparative performance; longer-term planning shell with short-term competition preparation; contingency planning likely

1 which elements of the coaching process will there be differences? Table 7.2 provides more detailed examples of differences in coaching practice. However, these can be summarised as follows:

Differences are most likely to occur in the direct intervention roles. Differences in managing the external environment are more likely to be dependent on organisational structures and level/intensity of engagement. It is possible that the strategic coordination role will be more demanding in team sports with large coaching teams and support personnel, and with organisational goals to be satisfied.

Three elements of coaching practice – planning, involvement in exercises/drills and competition role – are central to sport specificity. Many of the differences between sports impact on one or more of these functions.

Workload management is a key concept. Earlier sections have highlighted the continuum between carrying out training and competition planning intentions with some degree of predictability and the variability in delivery and performance expected in interactive and contested sports. Sports with high levels of tactical decision making and degrees of freedom in technical execution require more workload management and feedback.

The phrase 'coach dominated' is often used for those sports in which the competition role of the coach involves decision making that has a significant impact on the patterns of play and the outcomes of the game/sport. (This is most likely in sports in which tactical management, use of substitutions, and opportunities to conduct time-outs or other breaks in continuity are evident.) Conversely, there are sports in which the observation and interpretation of the external environment is less significant and can be accomplished, in many cases, by the performer. It is not unusual in a number of sports, and for athletes of some experience, for the coach's role to be 'reduced' to adviser or occasional consultant.

Table 7.2 Sport-specific factors in coaching practice

<i>Sport characteristic</i>	<i>Sport example (compare)</i>	<i>Impact on coaching practice</i>
Role in competition	Basketball with athletics	Expertise required in contest management; high level of intervention; presence required; coach dependency in decision making; level of independence fostered in performers; active engagement in competition with attendant emotional demands
Performance profile (race, game, performance)	Swimming with hockey with rhythmic gymnastics	Control of performance outputs, target setting; interactive tactics; psychological preparation for uncertainty; focus on opposition performance; coach's competition role; specificity of preparation/rehearsal
Team/individual	Netball with archery	Complexity of processes; control of variables; level of individualisation; amount of data; methods of communication; control of interactive workloads; specificity of goal-setting; selection
Competition pattern (league, target, circuit)	Ice hockey with athletics with golf	Periodisation of year; goal-setting; impact of illness/injury; variability in threshold values; monitoring horizons
Equipment dependence	Rugby union with motor racing	Need for technical expertise; control of variables; psychological preparation
Environmental conditions	Sailing with badminton	Stability of planning intentions; ease of communication; delivery style; control of environment; ease of monitoring
Balance of performance components	Cricket with rowing	Priority given to major components – tactical capacity, physical conditioning, technical development, etc.; complexity of process – planning, monitoring; incremental versus systematic progression
Interactive role in training	Volleyball with skiing	Constancy of feedback; management of workloads; skill required for feeding/control; communication control; use of support team; monitoring and

Characteristics of performers (age, gender, disability)

Gymnastics (elite age) with soccer (elite age)

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Gymnastics (elite age) with soccer (elite age) Leadership style; physical and psychological maturity into planning; lifestyle support issues; interpersonal relationship issues; communication; independence Development profile Soccer with handball performer reward environment; availability of funding; support personnel; sport science support; recruitment; education opportunities

Systematic coaching behaviours

When the ideal model of the coaching process was proposed, it presumed a rational, logical and constraint-free approach: in other words, a systematic approach to the business of coaching. However, a more pragmatic and common-sense perspective might begin with the view that this would be a very difficult practice to fulfil, and that some coaching processes are likely to be more systematic than others. Figure 7.4 illustrates this in a simple diagram.

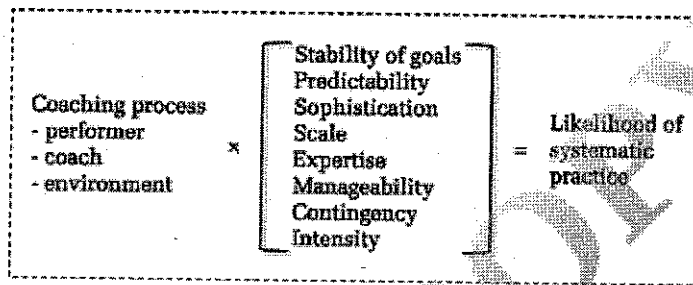


Figure 7.4 Factors influencing the likelihood of systematic practice.

The purpose of this section of the chapter is to examine the nature of more and less systematic practice as an overarching feature that will provide a reference point for more specific behaviours. In passing, it should also be noted that this may be a useful comparative evaluation tool for coaching practice. The questions to address are: what is meant by systematic practice, and to what extent is the systematic operationalisation of the model to be expected?

The characteristics of systematic coaching practice are that:

- the process will be comprehensive in its coverage and attention to detail;
- actions will be instrumental, that is, planned, regulated and goal-directed;
- there will be a marked degree of management or 'control' of the process, particularly through regulating performance preparations; and
- decision making is based on established principles of good practice.

In an earlier passage, sport coaching was described as an attempt to reduce the unpredictability of performance within specified boundaries of time, place and resource. The word 'attempt' is important. When dealing with human behaviour, it is not unreasonable to preface the use of the term systematic with the caveats 'as possible' or 'within reason'. The description of systematic practice follows logically from that earlier statement. The argument has been presented in this way:

In order to reduce unpredictability (which assumes tailoring to suit individual needs), the coach will attempt to control as many as possible of the variables affecting performance and their preparation. The systematic regulation of the process will involve planning, recording, monitoring, problem solving and calculated decision-making. In constraint-free circumstances, we might expect the coach to adopt a rigorous detailed approach to practice. This implies monitoring progress, compiling player profiles, measuring performance capacities and operating from predetermined plans and schedules. The coach's strategic goals are constantly evaluated through the monitoring and recording of the individualised workloads from each training session. Strategic and tactical decisions in competition and based on objective analyses of the performances of the performers and their opponents.

(Lyle 1998, p. 69)

One of the key features of systematic practice is the attempt at quality control by the coaching team. The extent to which the quality of the process and its sub-processes are assured may also be a useful measure of accountability and efficiency. Note also that it is the quality of the output and not the outcome that is assured. Control, in this sense, implies 'management to best advantage' and should not imply negative connotations. There is no suggestion that 'control of the performer' is a feature of systematic coaching practice. Indeed, quality management is a useful maxim for coaching effectiveness studies.

Looking back to the model, you will notice that there are many feedback loops and evaluation stages. Quality control occurs at a number of different stages. Figure 7.5 identifies these control stages using a simple input-treatment-output model. There will also be a number of predictable features of the process (Table 7.3) that will provide an indication of the likelihood of more or less systematic practice.

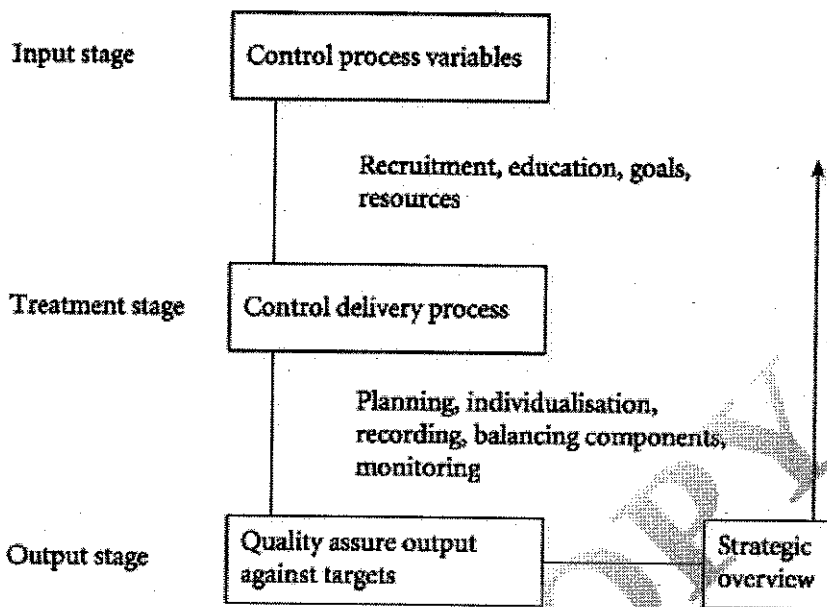


Figure 7.5 Quality control stages.

QUESTION BOX

The use of the words 'control' or 'manipulation' are intended to be directed to the range of performance variables, but is often interpreted as a negative feature of interpersonal behaviour, and some academics infer a loss of independence by the performer. How could this confusion be better explained?

Identifying these potential barriers suggests that the likely operationalisation of the model in a systematic fashion is a demanding exercise and will need to be evaluated in the light of what is feasible and realistic in the circumstances in which the coach and the athletes are engaged. However, there are further considerations. It is reasonable to expect that coaches will adopt a professional practice that is the most efficient and effective. 'Systematic' should not imply that unnecessary procedures are employed or that coaches are constrained not to prioritise their time and effort. In describing and evaluating coaching behaviours, a number of common features should appear if the coach is to act efficiently in managing the process:

- routinise regular practice where possible;
- adopt option-reducing strategies for decision making;
- prioritise record keeping;
- focus attention through thresholds and key catalyst indicators to prevent over-monitoring;
- avoid over-planning, maintain a contingency approach, and
- retain flexibility and the human response approach.

Table 7.3 Potential barriers to systematic practice

	<i>Process feature</i>	<i>Potential barrier to systematic behaviour</i>
Role	Part-time athlete or coach	Less impact of training theory principles Time pressures
	Number of assistants	Specificity of expertise available in full range of process
Complexity	Number of contributory performance components	Potentially enormous number of measurements and recording possibilities Specificity of goals, targets
Implementation	Individualisation	Problem of squad size, facility availability, positional specialisation
	Workload management	Difficulty of measuring psychological, technical workloads Managing game drills in complex sports

	Monitoring	Maintaining an intelligence system Variable response to training loadings Interdependence of performance components Volume of data accumulated
	Human response	Emotion and effort as integral features of performance Reaction of performer to purely rational decision making
The sport	Pattern of engagement	Competition scheduling Competition role of coach Relative immutability of training cycles
Education	Coach expertise	Sufficiency of experience to assess and incorporate evidence-based decision making Evidence of good practice
Environment	Resources, finance, facilities	Impact of resourcing on option choices Impact of external agency goals and priorities

however, these potential features of coaching practice are also tools for analysing evidence of coaches' practice. It is necessary to establish the extent to which coaches actually operate systematically, and it is this type of research that we hope to encourage. It is important to point out that the term 'systematic' may have different connotations for the participation coach. In so far as participation coaches are more episodic in their outlook and are less involved in longer-term planning, resource or competition management, it is possible for them to deliver sessions, and series of sessions, which are well-organised and adhere to good principles of session structuring and management. It can also be assumed that the management of the programme is well organised. However, the absence of control of variables, the absence of instrumental preparation towards longer-term goals and the lack of comprehensiveness in the programme signal that the term 'systematic' would be inappropriate.

QUESTION BOX

Systematic behaviour is perceived not to be a feature of all coaching practice – even successful practice! Does this imply that describing and interpreting coaching practice is difficult or that successful athletes are not necessarily the product of effective coaches?

How would the systematic approach be recognised? There are many possible criteria relating to the regulation of the programme. The following are examples of such criteria:

- the degree of adherence to pre-determined plans;
- the quality and scale of record keeping;
- the individualisation of athletes' training programmes;
- precision in implementing training drills and exercises;
- the extent of workload monitoring and progress across performance components; and
- the degree of incorporation of rigorously obtained evidence into programmes.

The chapter continues by examining two pieces of evidence on coaches' practice. In the first, Lyle (1992) investigated the self-reported coaching behaviours of 30 coaches of international performers, ten in each of athletics, volleyball and swimming. Table 7.4 indicates the percentage of coaches who reported that they fulfilled the criteria described.

The evidence suggests that a number of criteria of systematic practice were clearly not fulfilled. The two tasks that stand out are the failure to monitor training programmes carried out when the coach is not present and the low incidence of individualisation of programmes. Although it is evident that planning is a central concern for these coaches, there are significant differences between sports and in recording and monitoring progress. Perhaps not surprisingly, competition performance is obviously a key factor for monitoring progress.

It should be noted, however, that this evidence can only be illustrative of coaching practice. There is no doubt that the coaches were 'performance oriented', but the coaches were almost all part-time, as were the great majority of the performers. The study needs to be repeated to assess the coaches' practice in less constrained circumstances. Nevertheless, it is valuable for highlighting areas in which more systematic behaviour might not be endemic.

In a similar investigation into the behaviour of hockey and swimming coaches, Cross (1995a, 1995b) found that there were a number of significant constraints to the implementation of the coaching process and that hockey coaches in particular exhibited a high degree of apparently less systematic practice.

Table 7.4 Coaches' responses to systematic coaching criteria

<i>Criteria</i>	<i>Swimming</i>	<i>Volleyball</i>	<i>Athletics</i>
Planning elements			
Written record of goals	20	10	0
Short-term goals identified	90	80	70
Long-term goals identified	90	30	90
Outline periodisation of the year	100	60	100
Plan for 4-5 weeks	100	70	90
Plan for one week	50	70	70
Use of pre-planning model	50		

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50	10	40	Total hours identified	40	38	40	Training targets identified	44	60	50	Competition targets identified	50	33	29	Monitoring elements	Written plan for session	70	80	50	Written record of session	80	50	70																			
			Workloads identified	90	40	80	Drills/exercises based on testing	90	0	0	Programmes individualised	40	20	80	Recording in systematic form	90	40	40	Close monitoring of personal training	50	30	20	Performance potential estimated: constantly	10	50	30	each session	30	50	30	at competition	90	80	90	by objective testing	90	20	20	Sufficient data for goal-setting	20	70	60

The data collected in these studies were supplemented by in-depth interviews. These examples point to a conclusion that coaching practice is not best described as systematic in the sense that a rational, detailed application of principles to all components of performance in conditions of evidence-based decision making takes place, competition and training targets are always established and individualised training programmes are constantly delivered, monitored and recorded. On the other hand, coaching practice can be described as systematic in the sense that there is attention to planning, the approach is methodical, practice is based on principles of good practice and there is a set of procedures for efficient and prioritised monitoring, recording and decision-making behaviour. The findings can be described in a way that raises interesting suggestions about coaching practice. The following became clear:

- There is a fairly detailed planning umbrella within which coaching action is determined.
- Delivery activity is more likely to be applied contingently.
- Monitoring of progress and the decision making related to delivery is subject to a professional expertise that is largely cognitive.
- The apparently intuitive practice of the performance coach (even within the rigorously applied schedules of some coaches) masks a complex set of cognitive processes which is the hallmark of the expert coach.
- Experiential decision making is supplemented by a series of objective data and testing, and by competition outcomes.

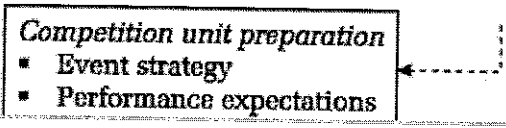
★ KEY CONCEPT

Coaching practice can be described as systematic in the sense that there is attention to planning, the approach is methodical, practice is based on principles of good practice and there is a set of procedures for efficient and prioritised monitoring, recording and decision-making behaviour.

We are also aware that the use of the term systematic can be criticised on ideological grounds. Writers who are classified as humanist or who use the term 'athlete-centred' would be likely to oppose such an approach on the grounds that it dehumanises the process and implies a mechanistic approach. We reject this criticism. The systematic approach is focused on the performance itself, and on data-led judgements. This need not render it anything other than athlete-centred, or prevent innovation, creativity and the need for experience-led professional judgements. Indeed, improvement in performance is the defining purpose of sport coaching and anything other than a systematic approach to its enhancement could hardly be argued to be in the interests of the athlete. The coach's role in achieving a balance of emphasis between interpersonal communication and care, sport specificity and context, and performance management marks the coaching process as one requiring an advanced, higher-order occupational expertise.

ADAPTING THE MODEL

One of the intentions of working with the conceptual framework is that the model should be adapted continuously, as evidence of practice becomes available. This example shows how the generalised conceptualisation in the model of part of the competition phase can be made more detailed when evidence of coaches' behaviour is incorporated. Figure 7.6 reproduces the section of the model dealing with the competition phase. On the basis of our experience as coaches and incorporating further evidence (Lyle 1999), this might be reconceptualised more usefully (and accurately) as represented in figure 7.7.



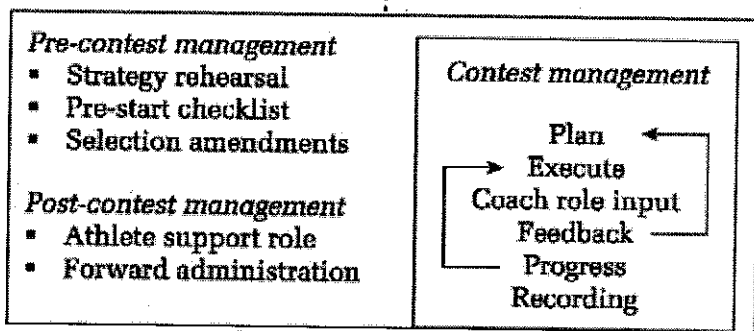


Figure 7.6 Generalised competition phase.

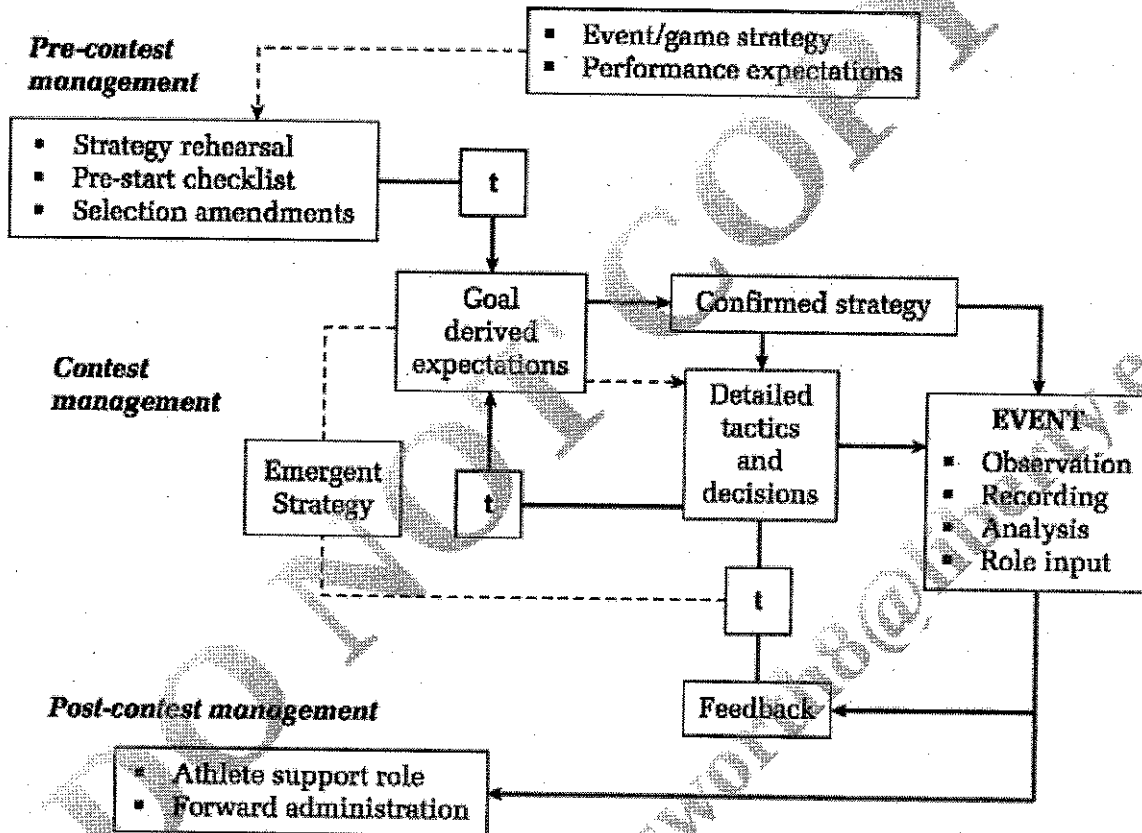


Figure 7.7 Upgraded model of the competition phase.

The more detailed model identifies threshold decision points and, perhaps more interestingly, the distinction between a confirmed competition strategy and an emergent strategy. The competition role input is, of course, very dependent on the sport and the coach's role in competition. It is this gradual refinement of the model that will lead to a better analytical tool, a more accurate model and, ultimately, a better understanding of coaching practice.

Limitations

The model exhibits many of the strengths and weaknesses of modelling described in the previous chapter. We reiterate that a comprehensive model 'of' coaching is neither appropriate nor currently feasible. It is possible to have prescriptions for better practice and/or for value-led practice, but to capture and represent the entirety of the coaching process is not possible and we have already argued that it is inappropriate. This chapter identifies an ideal model approach. The strengths are that the assumptions on which the model is based are identified, as are the key building blocks. It may also be said to be comprehensive and to emphasise both the process nature of coaching and the strong element of layering as evidenced in the feedback loops and interdependencies.

However, the model has some very obvious limitations. Inevitably, it is stronger in structure than function. The context-free and constraint-free nature of an ideal model makes it appear too detached from operationalisation, with a tendency to forget

extent of the linkages between elements are not specified. As a final point, we reiterate that the 'model' consists of the whole chapter, and the one to follow, and should not be interpreted as merely a diagram.

SUMMARY

This chapter should have familiarised you with the following:

- A model for the sport coaching process based on the concept of an 'ideal model'.
- The prior assumptions on which the model is predicated. These can be used to critique the model.
- The building blocks of the model – the information platform, coaching expertise, performer capabilities, analysis of performance, operationalisation, systematic development, planning, goal-setting, regulation procedures, monitoring procedures, preparation and training programme, competition programme, individualisation, personal and social meaning.
- A graphical representation of the model.
- Extending the model: sport specificity, systematic coaching behaviours, adapting the model.

PROJECTS

1. Select a component part of the model. Devise an investigation to test its aptness for describing coaching practice. Redesign the model in line with your findings.
2. Review the 'prior assumptions'. Select three or four and consider their impact on the model. What would be the impact of a change in these assumptions?
3. Design an investigation into the comparability of two sports in the way that coaches from those sports demonstrate different priorities in their application of the building blocks.
4. Select two component parts of the model. Attempt to identify the nature of the relationship between the components. This might require an investigation into coaching practice in a variety of circumstances, or coaches with different levels of expertise.

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