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**THE DEVELOPMENT OF AN IDEAL-TYPE MODEL OF THE COACHING
PROCESS AND AN EXPLORATORY INVESTIGATION INTO THE
APPROPRIATENESS OF THE MODEL FOR COACHES IN THREE SPORTS**

UNIVERSITY OF STIRLING

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September 1991



**This thesis is submitted to the
University of Stirling in fulfilment
of the requirements of the Degree of
Master of Science**

ABSTRACT

The initial aim of the project was to devise and present an innovative model of the sports coaching process and to conduct an exploratory investigation into its aptness as an analytical tool for developing a more explicit understanding of the behaviour of coaches. Supported by the author's considerable experience as a coach and in working with senior, experienced coaches, and an analysis and evaluation of relevant literature, a logico-deductive methodology is employed to construct an ideal-type model of the coaching process.

The model is conceptualised as a continuous cyclical coil, consisting of preparation and competition units, radiating around central goals and monitored via a potential performance constant. The coil represents a direct intervention core surrounded by indirect responsibilities and the external environment. The assumptions and key concepts around which the process is devised as described and the stages of the model explored in two-dimensional flow diagrams. The factors which constrain the application of the model are identified.

A panel of thirty experienced, senior coaches was invited to respond to the model. Following an analysis of the data generated from the panel of coaches, it is clear that the ideal-type model fails to offer an adequate basis for an understanding of the full-range of the coaches' behaviour. To this extent the model had a limited utility as a 'model of' the coaching process.

The aims of the project were revised in order to attempt to account for the unanticipated findings. The work of Schon (1983) is employed to provide a theoretical framework which offers a more useful interpretation of the research findings.

The study concludes that the ideal-type model does not provide an adequate understanding of the behaviour of the panel of coaches employed in the study, but that proposals for further research which build constructively on the systematic framework offered by the model and incorporate Schon's incrementalist approach to professional practice, offer considerable promise for the future.

ACKNOWLEDGEMENT

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This has been a long process. I would like to take the opportunity to thank Professor Chris Turner and Dr Ian Thomson for their guidance and comments over the years.

The work is dedicated to my children, Joanne and Andrew, with a wish to enjoy satisfying, successful careers.

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INTRODUCTION AND STATEMENT OF THE PROBLEM

CHAPTER ONE

Introduction and statement of the problem

The purpose of this research was to determine the effectiveness of a program designed to improve the performance of teachers in a large urban school system. The program was based on the premise that teachers need ongoing professional development to stay current in their field and to improve their teaching skills. The program consisted of a series of workshops and seminars that focused on various aspects of teaching, including classroom management, instructional strategies, and assessment. The program was implemented over a period of two years, and the effectiveness was evaluated using a variety of measures, including student achievement, teacher self-efficacy, and teacher satisfaction. The results of the study indicated that the program had a positive impact on teacher performance and student achievement. The program was particularly effective in improving teacher self-efficacy and satisfaction, which are important factors in teacher performance. The results also indicated that the program had a positive impact on student achievement, particularly in the areas of reading and mathematics. The findings of this study suggest that ongoing professional development programs can be an effective way to improve teacher performance and student achievement in large urban school systems.

The study was conducted in a large urban school system where there was a high percentage of students from low-income families. The school system had a long history of struggling with low student achievement and high teacher turnover. The program was designed to address these issues by providing teachers with ongoing professional development opportunities. The program was implemented in a systematic way, with all teachers in the school system participating in the workshops and seminars. The effectiveness of the program was evaluated using a variety of measures, including student achievement, teacher self-efficacy, and teacher satisfaction. The results of the study indicated that the program had a positive impact on teacher performance and student achievement. The program was particularly effective in improving teacher self-efficacy and satisfaction, which are important factors in teacher performance. The results also indicated that the program had a positive impact on student achievement, particularly in the areas of reading and mathematics. The findings of this study suggest that ongoing professional development programs can be an effective way to improve teacher performance and student achievement in large urban school systems.

CHAPTER ONE

INTRODUCTION AND STATEMENT OF THE PROBLEM

Research Aims and Strategy

- 1.1 The initial aim of this research project was to devise and describe an innovative model of the sports coaching process as an analytical tool for developing a more explicit understanding of the behaviour of coaches. Such a model could make a significant contribution to this field of study, enhancing the capacity for predicting coaches' behaviour, structuring coach education and underpinning the professionalisation of coaching. The original intention was to employ a logico-deductive methodology in order to devise an ideal type of model of the coaching process. The construction of the model involves the identification and integration of the principles appropriate to the component parts of that process.

- 1.2 The author has been course director for a full-time Diploma course in higher education for ten years. Through developing course materials and in discussion with a large number of mature, experienced coaches it became clear that there was a need for a comprehensive model of the coaching process. The interaction made possible by contact with these groups of coaches presented the opportunity to discuss and refine ideas about a model of coaching. The ideas which have become focused in this thesis emerged over a period of time and contain elements which were

subject to a continual process of verification by senior coaches and the author's coaching experience. The originality of the model presented lies in its broad scope.

- 1.3 Thirty senior, experienced coaches were invited to respond to the model. Following an analysis of the data from the panel of coaches, it became clear that the logico-deductive model failed to provide an adequate basis for an explanation of the limited utility of the model for understanding reported (and observed) behaviour of the coaches in the sample. The initial expectations of the study were not therefore fulfilled. At this stage the aims of the research were revised in order to attempt to account for the unanticipated findings. It was necessary to search for a theoretical framework which offered a more adequate explanation of the coaches' behaviour. The work of Schon (1983) seemed to provide a useful approach and was used to provide a more effective interpretation of the research findings. It is acknowledged that this analytical device was introduced at a relatively late stage of the work and in response to the limited explanatory power of the ideal type model.
- 1.4 In essence, the model is based on an assumption of a rational, technological and systematic approach to the business of coaching. It is part of the model building process to make clear the assumptions on which the model has been predicated and to identify the starter concepts and key ideas around which the model is designed.
- 1.5 Coaching is defined as a recognised practice in sport whereby individuals intend to improve the performance of an athlete or a team and to reduce the unpredictability of performance towards an identified target competition. There is a paradox. The athlete can be regarded in objective

terms and his/her performance assessed accordingly and yet, he/she is a human being with the personal, social and cultural implications which this has for the process. The coaching process will be implemented in the context of a coach - athlete relationship. In addition to the many personal variables consequent upon this, the relationship may occur within any of the many organisational settings.

- 1.6 The results of this exploratory evaluation of the ideal-type model demonstrated that the model failed to provide an adequate basis for an explanation of the full range of the coaches' behaviour. To this extent the model did not prove to be a 'model of' the coaching process. The study concludes with proposals for future research which build constructively upon the framework offered by an amalgamation of the ideal type model and the Schon theoretical framework. Future research, it is suggested, will determine whether or not the incrementalist approach implemented within a systematic, rational planning shell is able to become a 'model for' coaching practice.

Coaching in Context

- 1.7 The establishment of the National Coaching Foundation in 1983 was the culmination of a period of analysis and reflection on the most appropriate form of development for the organisation and promotion of sports coaching in Great Britain. This process was a reflection of the attention paid to sports coaching in a number of other English speaking nations throughout the 1970s. Governments and government agencies in Canada and Australia had perceived the need for a reorganisation of the institutions responsible for sport, with the consequent attention to sports coaching. The result of this was a focus on the contribution of coaching to sports development and

on the 'professional' status of coaching, an area which hitherto had not been treated as problematical.

1.8 In Great Britain, the responsibility for the education and deployment of sports traditionally has rested with the National Governing Bodies of sport. However, the establishment of the National Coaching Foundation (NCF) as a sub-committee of the Sports Council, itself an at-arms-length organ of central government, and the publishing of national strategies (Scottish Sports Council 1988, NCF/BANC 1986) suggests a degree of recognition for the value of coaching by public agencies. Discussions are currently taking place on the establishment of a national regulatory body for coaches (BANC 1988). In these circumstances, it was hardly surprising that the Commonwealth Games Conference in 1986 devoted its coaching theme to the question of professionalisation (Coach Education: Preparation for a Profession, 1986).

1.9 There are a number of factors which have bedevilled any straightforward analysis of the situation. Whilst the term coach has a common currency in a sporting context albeit varied by culture specific features, the coach's practice is perceived to have an esoteric quality which does not appear to be discouraged by the initiated. Considerable resources are expended on coaching, both in human and material form, but this is often in the voluntary sector of sport and in professional sport where client groups are less concerned with the accounting for resources. The concerns of coaches are not perceived to involve life-threatening issues or matters of serious social upheaval and have received a consequent lack of attention by local and national government. In addition there are culture-specific features of the occupation of coaching. The state bureaucracies of Eastern Europe demonstrate examples of centralised

organisation, education, regulation and deployment. This contrasts very sharply with the devolved autonomy of Governing Bodies in Britain and with the educational institution base of the coaching profession in the United States of America. More recently, the expansion of recreation and leisure opportunities in Britain, both in the public and commercial sectors has focused attention on a rather more disparate group of leadership roles. Nevertheless it is universally accepted that coaches try to improve athlete performance in a variety of contexts.

- 1.10 Findings reported at the Commonwealth Conference (Chelladurai 1986, Gowan and Thomson 1986) pointed up the lack of career development and the absence of professional regulation. Using fairly straightforward and simple analyses of professional status, it was concluded that a body of knowledge and skills did exist but that there was no control of entry to the profession, lack of systematic coach education and little evidence of a consensus on, or enforcement of, a code of ethics. The embryonic professional development reflects the uncrystallised career structure and the overwhelming preponderance of voluntary coaches. Nevertheless, in a professionalising occupation there are unanswered questions on client relationships, on the assessment of professional competence and on the claims made by coaches over that which they profess to exercise in a special and unique way.

The Development of a Theory of Coaching

- 1.11 Several bodies of knowledge and skills can be identified as contributing to the coaching process. Thus, exercise physiology and training theory, motivation and communication, and sports-specific knowledge amongst many others are incontrovertible claimants to be included in such a list.

However, it seems likely that it is the unique coordination of these which is the essence of coaching rather than their exclusivity to the profession. The nature of the coaching process is unresolved and there are many unanswered questions. These questions can be divided into those which deal with the boundaries of the process and those concerned with notions of meaning or purpose in coaching.

1.12 Whether individuals working with recreationalists rather than committed, elite athletes can be said to be coaching is a question which has occupied the minds of many coaches, administrators and coach educators. However, the limiting factors, such as duration, frequency, regularity, extent, and intent are of the process itself and not of the athlete in terms of standard of performance. Nevertheless, the distinction between more and less committed athletes is often perceived to be a parallel of the dichotomy in the debate over the purpose of coaching between an emphasis on human values and an emphasis on performance. The meaning attached to the human engagement in coaching is variously attributed to satisfying the individual's reasons for involvement in sport, whatever these may be, or to attaining a competition success regardless, to an extent, of the consequences for the well-being of the athlete.

1.13 In essence, the outcome of coaching is expected to be the enhancement of the performer's capacity for performing in sport, and subsumes a consequent coach-athlete relationship. The means for attaining the enhanced performance and the nature of the relationship will be matters for coaching philosophy. Any superficial examination of coaching will reveal that coaches have very different interpretations of coaching practice. This is not simply a reflection of different occupational circumstances, nor of the singular case which each athlete or team

represents. There is a set of values, inherent in each coaching process, which exacerbates the pluralism of practice. The pluralism is reflected in role interpretation. The aim or end is clear: there is a variety of ways of achieving this aim.

1.14 The absence of systematic coach education, of a professional body (in Great Britain) and the secretiveness associated with competitive sport has militated against communication, far less agreement. In part, the problem is the unwillingness of coaches to develop a systematic language for either describing or explaining personal practice. The coaching literature contains few systematic accounts of coaching practice are available and that the anecdotal accounts which have found their way into print have contributed very little to a systematic body of knowledge underpinning practice.

1.15 The dichotomy between the practitioner and the theoretician and the lack of effort devoted to the production of effective theories of coaching explain to some extent the lack of attention paid to theoretical issues in coaching. The lowly status of the coach is matched, in some ways, by the perception that coaching is non-academic. There is no tradition in Great Britain of sports studies finding a place in university curricula or research. A perception has emerged, therefore, of sport as a non-serious element of life, an outcome which is fuelled by the voluntary involvement of most participants. The result of this is a reliance on experienced practitioners for initiation into the profession and the furtherance of coaching studies. This has been compounded by the targeting of what research there has been onto the coach's client, that is onto the performer.

1.16 Such a state of affairs partly accounts for the absence of vocational studies and the rather haphazard development of coach education. The emergence of the practitioner as the focus of attention has led to a further debate on the essence of coaching. In addition to lowering the status of the theoretician within coaching studies, there has been an attempt to mystify the process. This seems to have been a mixture of philosophy (Gleeson 1984) and the absence of an alternative vehicle for analysis. The issue is recognisable in the debate over coaching as an art or a science (Cain 1980). Schon (1983) has described such a position as unhelpful in as much as the failure to adequately describe one's own behaviour and competences closes the door to further enquiry. Despite the adherence of many coaches to the 'indescribability' of the process, the absence of communication would appear to be a lack of appropriate mechanisms rather than professional machination.

The Need for an Explicit Model of the Coaching Process

1.17 The main problem is the absence of a conceptual vehicle with which to ameliorate many of the difficulties described above. A model could provide a conceptual framework for identifying elements relevant to enquiry about coaching, and constitute a means through which coaching and its problems and issues become more easily understood. Therefore, the matters of concern identified above, such as the absence of 'theoretical' enquiry, the need to demystify the process, the absence of a communication medium, the question of process boundaries and the need for a consentient, structural template from which philosophical approaches would take a contextual meaning, could be addressed more profitably within the reflection and organisation of thought made possible by a satisfactory model of the coaching process.

1.18 There is a need for a model of the coaching process which will provide a rationale for the structure and substance of coach education. There is a need for a model of the coaching process which will allow coaches' behaviour to be described, understood and analysed, and the effects predicted. In addition, there are a number of empirical questions which are difficult to tackle at the present time. These range from simple surveys of coaching practice in relation to specific sports, standards of athletes, occupational circumstances or emphases within the process, to the quantification of the process and evaluative enquiry against athlete success or athlete satisfaction. The development of a generalised model of the coaching process should provide the opportunity to design experiments in coaching and enable researchers to examine the contribution which coaches and coaching can be expected to make to athlete performance. Without such a framework, it is difficult to assess and evaluate the performance of the coach or to speak in terms of coach accountability.

1.19 The availability of a model of the process of coaching should enhance knowledge and provide an avenue for development in a number of areas. Firstly, the boundaries of coaching, the defining of essential qualities is required for progress in vocational studies. This is important at a time of proliferation of 'leisure professionals' and of scarce resources. Secondly, individual coaches need a system of reference points within which to make their personal interpretations of meaning. Thirdly, but most significantly, there are questions about the practice of coaching. Questions about application in given circumstances, of efficient and effective practice, and of the relationships to other bodies of knowledge can only be answered by examining how coaches work in practice, and exploring the

extent to which coaching theory can be used as a means of enhancing sports performance in a predictable and efficient way. There are questions to be answered about this inter-relatedness of the steps in the process, about the degree to which coaches operate critical pathways through the process. Which elements of the process should be prioritised? What are the implications of working in a systematic or unsystematic manner? There are many further queries on the coach's ordering of process steps, or on the efficacy of process options in specific sports, but these require a conceptual vehicle which would form the basis for research of this kind.

Research Design

1.20 A constraint-free model of the coaching process was devised using a logico-deductive methodology. This involved logical analysis of coaching practices and identification of variables associated with the concept of coaching as a basis for a systematic conceptual model. Such a procedure has taken place against the background of the extensive experience of the author as an international athlete, coach and coach educator, and with the benefit of a thorough study of the coaching literature. It was the objective of the study to develop a model to describe, understand, analyse and in the longer term contribute to the explanation and prediction of coach behaviour. The innovative nature of this work and the absence of previous attempts to establish conceptual frameworks of this sort focused attention onto the coaches' behaviour. At this stage of development of the model, it was not the intention to measure the effect of coaches' behaviour on athlete performance.

- 1.21 In order to assess the appropriateness of the logico-deductive model for describing and explaining coaching behaviour, the self-reported behaviours of a panel of experienced, well-qualified coaches responsible for coaching national level performers, were analysed and the relevance of the model for understanding their practice examined. It was anticipated that the data collected would demonstrate that the ideal type model provided a suitable basis for explaining behaviour. Secondary development of the model to incorporate limiting factors for the coaching process was expected to lead a more sensitive instrument with an anticipated benefit for coach education.
- 1.22 The decision to rely on self-reported behaviours was a considered response to the difficulties of exploratory work in this field. It must be emphasised that self-reported behaviours were underpinned and informed by the researcher's practice and observation of the practice of a majority of the coaches.
- 1.23 The study concludes with proposals for research which build constructively upon the devised model and the framework offered by Schon. It is suggested that the ideal-type model offers a systematic framework and should be adapted to incorporate Schon's implementation procedures which more closely represent coaching practice. The evidence available from the analysis of the expert coaches suggests that in the context of contemporary Scottish coaching, the incrementalist approach proposed by Schon, implemented within a systematic, rational, planning shell, offers the most powerful means of describing and explaining coaching behaviour. This has implications for the content and structure of coach education.

- 1.24 Following an opening statement of the issues involved, the context from which they assume significance and a summary of the research design, there is an analysis and evaluation of the relevant literature. The literature available is large but diverse and unfocused. The review herein examines the previous attempts to characterise the process and the types of literature sources which are available. It is concluded that no comprehensive model of the coaching process is available in the literature.
- 1.25 The logico-deductive model itself is then presented. This includes an explanation of the manner in which the model was constructed and the conceptual framework around which it is built - the assumptions and core elements of the process. The difficulties of model description are examined and the process itself described in general perspective and in operational terms. The issue of the application of the model is then examined. This takes the form of an examination of the departure of the model in practice from the constraint-free ideal and the influence of factors such as resources, specific sports and coaches' philosophies.
- 1.26 The next chapter deals with the assessment of the relevance of the model for the interpretation of the self-reported behaviours of a panel of expert coaches. The findings of the study are presented with an analysis of the adequacy of the ideal-type model to explain the findings. It was not the intention to test the model but rather to try to establish the extent of the consensus among the coaches about the model and its constituent elements. It is concluded that the model fails to provide an adequate basis to account for the coaches' behaviours.

1.27 The conceptualisation of professional action and decision-making devised by Schon (1983) is then introduced and evaluated for its power to analyse and explain the self-reported behaviour of coaches on the panel. The evaluation continues with proposals for further research and conclusions about the contribution of the overall study for understanding coaching and coaches in Scotland at the present time.

CHAPTER TWO

A REVIEW OF LITERATURE RELEVANT TO AN ANALYSIS OF THE COACHING PROCESS

INTRODUCTION

CHAPTER TWO

A review of literature relevant to an analysis of the coaching process

INTRODUCTION

The purpose of this chapter is to provide a critical review of the literature relevant to the coaching process and to examine the nature of the coaching process and the models and theories that are based on it. Special attention is given to the nature of coaching itself and to the process of improving sports performance. A number of factors are discussed which are thought to be important in the coaching process and the relationship between these factors and the coaching process. The relevance of theories and models to the coaching process is also discussed, and a number of models and theories are presented. The relationship between coaching practice and sports performance is also discussed, and the importance of a number of factors in the coaching process is highlighted.

CHAPTER TWO

A REVIEW OF LITERATURE RELEVANT TO AN ANALYSIS OF THE COACHING PROCESS

INTRODUCTION

2.1 The purpose of this review is to evaluate the extent to which the literature on sports coaching is underpinned by models of the coaching process and to examine the assumptions, key concepts and processes on which such models are based. Attention to theoretical aspects of coaching is not common in the literature. There is an absence of consensus and clarity about the nature of coaching itself and despite an agreement on the aim of improving sports performance, a number of factors have contributed to a lack of urgency in establishing a theoretical model of the process in which coaches engage. Amongst these complex and interacting factors are the reliance of coaches on matters practical rather than theoretical, a poorly structured coach education programme, the influence of competition between coaches and a consequent lack of communication, and the absence of an established credo on the relationship between coaching practice and sports performance. The effect of these factors is further exacerbated by a tradition of esoteric practice and a lack of agreement on appropriate social context, client groups and specific objectives.

2.2 This review has concentrated on the literature available in the English language although within this there has been some cross-fertilisation, largely from sources in Eastern Europe. The USA has had a career pattern for sports coaches based on High School, College and University sport and this has spawned a large literature. More recently Canada, Australia and New Zealand have turned their attention to sports coach education with a complementary literature. Great Britain has little tradition of publishing in this area, that is sports coaching literature which is common to all or many sports. The absence of this common theory material reflects the low academic status of sports studies, the education of coaches at below degree level, the low esteem of the coaching 'profession', and the lack of interest by Colleges and Universities in sports coaching research. All of this exacerbates the already mentioned preoccupation by coaches with the practice rather than the theory of coaching, and the predilection for sports performance-related research.

2.3 It might be anticipated that there would be research into the effectiveness of coaching practice. However, the relationship between coaching practice and sports performance has been difficult to establish. Tinning (1982) was able to say that he had not been able to find any research relating coaching behaviour to sports performance. Gordon (1983) attempted this with psychological dimensions of leadership in coaches but with limited success. Part of the difficulty has been the lack of agreement on the effectiveness measure. This lack of consensus has prevented there being a body of collected wisdom from the research findings. Tinning's review of coaching behaviour studies pinpoints the focus on interaction analyses. Studies such as Avery (1978) and Rotsko (1979) have employed scores of verbal and non-verbal praise and criticism as measures of effectiveness. These studies are seriously flawed by their

failure to establish links to the objectives of the process and the use, in general, of sample populations divorced from high level competitive sport.

2.4 This review will be selective in that attention has been paid to categories of sports coaching literature and the degree to which they illuminate the search for a theoretical consensus about the coaching process. The review is not selective in the sense that it has highlighted texts in an arbitrary fashion. Clearly it was necessary to search for extant models of the coaching process, and for those elements of the process that would lead to its more effective analysis. The review, therefore, has sought to evaluate the types of literature available, and the extent to which a common analytical tool can be discerned. It is appropriate, therefore, to evaluate the strength and weaknesses of the existing literature for contributing to an understanding of coaching behaviour, rather than to collate to any great extent the content or findings themselves. The texts referred to are those which characterise the genre and are representative in style, content and approach.

2.5 The review of the literature reveals a bias towards the coach's behaviour and personal qualities, and the nature of the direct relationship to the athlete. The initial sections of the review deal with these categories, that is, the coach's personal qualities and the identification of coaches' behaviours. Following this, there is an examination of the literature concerned with the analysis of the process. Sub-divisions deal with coaching process components, empirical research in coaching and coaching philosophies. The influence of situational and occupational context is reviewed in the sections dealing with coaches and their occupational setting, coach education the sub-disciplines relevant to

coaching, conferences and social context. Finally the review turns its attention to attempts to understand and portray coaching as a process and evaluates the extent to which the literature is useful in informing the model construction which follows.

THE COACH'S PERSONAL QUALITIES

2.6 A large part of the literature attempts to identify the personal qualities appropriate to sports coaches and the behaviour appropriate to the coaching enterprise. Tinning (1982) recognises this and provides an explanation. Using an adaptation of Duncan and Biddle's model (1974), he identifies personal, contextual, process and product variables in his conceptualisation of instructional effectiveness. Tinning suggests that the literature has concentrated on presage or contextual studies, citing Hendry's work (1969, 1972) on the personality of coaches and the unsystematic role analyses of Rushall (1980), Palmer (1979) and Daly (1980). Writings on coaches' qualities range from the simplistic (Chambers 1979) to those based on surveys of coaches' opinions (Holmes 1980). Sands (1979) provides such a list of qualities but this is based on answers to questions about coaches rather than coaching. Without offering a delineation of his coaching parameters, Sage (1980) reviewed the literature on the personal attributes of coaches. However, he found the available evidence inconclusive.

"It is obvious that no clear and unambiguous set of personality characteristics emerges from the research findings."

(Sage 1980, p 114)

The literature on personal qualities has contributed little if anything to coaching practice or education. In addition to the ambiguity of the findings, there have been limitations imposed by the use of student samples and the failure to distinguish between sport as recreation and competitive sport.

IDENTIFICATION OF COACHES' BEHAVIOURS

2.7 The search for appropriate coaching behaviours is characterised by two distinct approaches. Although each is concerned with the relationship between coach and athlete, the first approach is concerned to identify the role and responsibilities of the coach and the second approach attempts a more systematic analysis of coaching behaviours.

2.8 Mancini and Agnew (1978) review the area and note the absence of a critical analysis and of a justification of behaviour categories. Gravelle (1980) notes the reliance on author opinion.

"a considerable amount of information and guidelines exists describing what the coach 'ought' to do but little or no information provides a description of what the coach 'actually' does".

(Gravelle 1980, p 325)

In addition to the sources identified above, Carron (1980) and, more recently, the National Coaching Foundation (1986) offer opinions on the role of the coach. These are often expressed as lists of role descriptors: common terms employed are teacher, motivator, disciplinarian, manager, counsellor and instructor. Watson (1981) offers a useful distinction between communication within an organisation and that between coach and

athlete. Wainwright (1980) shows the influence of a teaching/learning model in his categorisation of the role.

- 2.9 The attempt to quantify coaching behaviours has not been very successful. Owing much to the systematic observation of classroom behaviour, Davis (1979), Darst et al (1981) and Hattlestad (1984) have proposed a similar approach to the observation of coaches. Crawford (1980) opined that the methodology fell short of what was required.

"When it comes down, however, to measuring coaching behaviours from an objective standpoint there is a paucity of simple tools to ensure that coaching is made more effective".

(Crawford 1980, p 48)

The emphasis in these studies has been on the degree of positive or negative feedback demonstrated in both verbal and non-verbal behaviour. Although there has been some transfer to coach education, this sort of work has focused on only a part of the coaching process, that is observable behaviour between coach and athlete. In addition, Cratty's (1973) earlier comment that the basis of much of the information on coaching was based on exploratory rather than definite research remains apposite.

- 2.10 The literature reviewed thus far has failed to demonstrate any conceptual clarity or any consensus on the coaching process. The attempt to establish personal attributes or appropriate behaviour has been descriptive and few examples of this category of writing attempt any synthesis of the material into stated assumptions about the coaching process. The focus is on part of the process but the relationship to the whole is rarely explored. No model against which practice can be evaluated is offered. The personal qualities identified are rarely translated into knowledge and

skills. In summary, the writing is descriptive and uncritical. Tinning (1982) emphasises the subjective nature of this work.

"Such works tend to reflect on coaching from the benefit of the authors experience - a sort of post-hoc analysis of the process variables".

(Tinning 1982, p 38)

COACHING PROCESS COMPONENTS

2.11 Nevertheless, there have been attempts to go beyond role descriptions and to identify components of the coaching process. Although there is a tendency for them to remain in list form, and to fail to offer coordinated, coherent explanations for the relationships between the factors identified, these writings do make a contribution to an understanding of the process. There is a range of quality and depth from Worthington (1978) and Kane (1980), through the National Coaching Foundation/British Association of National Coaches (1987) and Rushall (1985), to Rushall's (1979) rather more insightful identification of key concepts. He recognises the failure of other authors to approach the totality of the process.

"as one becomes involved with the task of conscientiously applying oneself to coaching, it is a common failing to emphasis one, or at most, a few features of orientation".

(Rushall 1979, p 3)

Rushall's list of key features is open to the criticism applied to the previous authors. However, the list is more comprehensive than the others and relates more to the process itself rather than to the coach's behaviour. He identifies the following characteristics of effective coaching: the provision of a totally planned system, the maximisation of productivity, direction, intrinsic motivation, the instructional process, positive experiences, social experiences, progress information, content

variety, and the transfer of control to the group/individual. Underlying this and other contributions is an orientation to a task culture within a democratic leadership style. However, Lombardo (1984) remains sceptical about the value of the literature.

"The literature related to coaching was replete with sweeping generalisations, non-empirical observations and anecdotal accounts from selected sporting participants. Subjective and personal recipes are more often the basis for prescribing coaching techniques".

(Lombardo 1984, p 9)

EMPIRICAL RESEARCH INTO COACHING

2.12 The previous section contained allusions to key issues and to research findings. It is important to review these studies for their contribution to the theoretical basis for the coaching process. Although much of the greater part of the sports research literature is concerned with sports performance, there are a number of research categories with potential for understanding the coaching process. There has been reference in the text to the summaries of personality research provided by Hendry (1972) and Sage (1980). There is no evidence that this avenue of research has contributed to coaching practice or theory.

2.13 There is a tradition of quantitative research into the expressed preferences of athletes for particular coaching behaviours (Danielson et al 1975, Strache 1979, Massimo 1980, Terry and Howe 1984, Neil and Kirby 1985). The methodology employed has tended to depend upon previously developed, general leadership inventories. Terry (1984) targets the sample more specifically to a competitive context. Despite the fact that these studies have been employed to make statements about coach-athlete relationships, they are not reflective of a theoretical basis

for the coaching process itself. Were these findings to be related to a process model, they might make a significant contribution to the application of the model.

2.14 One significant outcome from behavioural research has been the attempt to translate its findings into coach education. Behaviour modification of coaches (Smith et al 1977) has been applied in general (Smoll et al 1978), in youth sports (Smith et al 1979, Sherman and Hassan 1986) and to swimming coaches (Russell and Smith 1979). The behaviour categories are derived from content analyses of coaching behaviours in training situations and in competition. Despite the identification of interesting categories of behaviour, for example reactive and spontaneous, the reliance on observable behaviours restricts the methodology to a small part of the direct relationship between the coach and the athlete. Martin and Hrycaiko (1983) recognise the preselection of behavioural categories in the modification process but they draw attention to the importance of the context.

"The first step of a behavioural approach in any area of application is to prepare a preliminary list of behavioural categories or target areas of concern. For example, for a coach of a group of kids in an age-group competitive sport, such a list might include:"

(Martin and Hrycaiko 1983, p 11)

This was recognised in an earlier text by Rushall (1975).

2.15 Elements of sports performance have been singled out for attention in the literature. Physical conditioning, technique development and tactical development are each well represented. In a similar way, parts of the coaching process, or more specifically, elements of coach behaviour have

been targeted. For example, leadership and decision making has received attention (Chelladurai and Haggerty 1978).

2.16 The significance of this review of research into coaches and coaching is not to be found in the findings but in the extent to which the work is supported by a theoretical model of the coaching process. It is difficult to escape the conclusion that not only is there no conceptual structure of coaching as a basis for the research but there is a gap also between much of the work and the practice of elite coaches. The problem appears to be the very complexity of the variables involved, and the difficulty of controlling them in an experimental setting. In addition, the relationship between the behavioural variable being studied and the achievement of enhanced sports performance is often assumed but rarely established. Assumptions about the nature of the coaching process are unspecified but much of the literature is characterised by a teaching/communication model of coach-athlete interaction.

2.17 This has the effect of focusing attention onto the direct behaviour of the coach in the presence of the athlete, and away from variables such as the skills and knowledge of the coach, the influence of specific objectives and goals, and the effect on the success of the process of indirect factors such as finance, facilities and planning. The use of questionnaires and the desire to quantify findings is evidence of a positivistic tradition and it is surprising that there has been no tradition of ethnological studies. Whatever the methodology employed, there is no evidence of theoretical models of the coaching process being used to illuminate research design nor practice.

COACHING PHILOSOPHIES

2.18 There is a section of literature which is characterised by the sweeping generalisations, non-empirical evidence and anecdotal accounts adduced earlier by Lombardo (1984). In these writings, authors are expressing individual opinions or developing arguments which are unsupported by evidence. These may be interpreted as commentaries on the role of the coach. Unlike previous material on role, however, there is less specification of responsibilities and a greater emphasis on overall approach. Authors are concerned about the manner in which the coaching process should be applied. there may be explicit or implicit values underlying the suggested coaching behaviours. This section, therefore, might be appropriately termed coaching philosophy.

2.19 Although unsupported by empirical evidence, many authors cite their coaching experience or experience as academics working within physical education, sports studies or coach education as the basis for their assertions (McNab 1977, Pearson 1978, Howe 1981, Jones 1983, Swartz 1983). A number of authors highlight the nature of the relationship between the coach and the athlete, and the form of communication which is most appropriate (Watson 1981, Wainwright 1984).

2.20 There are a significant number of writers whose objective is to apply a principle or set of principles to the coaching process. This is particularly evident in writings from the USA. A concern for these excesses of over-commercialised and over-competitive youth sport has led to the application of broadly humanistic or person-orientated values, to coaching (Sage 1978, Danziger 1982, Orlick and Botterill 1975).

Both the USA material and British counterparts (Roxburgh 1981, Gleeson 1986) appear to show the influence of educational theories.

2.21 Literature on the philosophy of coaching would be expected to take a futuristic aspect and there are a number of writers who have examined the nature of coaching in a technological and dynamic environment (Aspin 1983, Blundell 1984, Parkin 1985, Dick 1986).

2.22 In none of the sources cited above is there an explicit description of the process to which the author's philosophy is to be applied. Assumptions are made about the process, although explication is rare, and there is recourse to consensus or 'safe' elements of the process. There are three themes common to much of the writing. Firstly, the form of communication appropriate to an open, shared relationship between coach and athlete is often explored. Secondly, a non-authoritarian leadership mode is acclaimed almost universally, and, thirdly, athletes are to be encouraged towards motivating factors intrinsic to the process itself.

2.23 Inasmuch as a model of the coaching process must take account of its application, and, therefore, of the individual coaching philosophy underlying an element of the process, this section of the literature is a useful resource against which to monitor the model's suitability across the range of coaches. Although there have been one or two attempts to place the coaching approach within a broader context, the emphasis in these writings is on the direct intervention process and as such, no direct assistance to the modelling process.

COACHES AND THEIR OCCUPATIONAL SETTING

2.24 Coaches will engage in the coaching process within a particular set of occupational, vocational, and professional contexts. These would range from the voluntary part-time coach to the coach operating within an institution and with a developed career structure. It would be anticipated that the literature on sports coaching would pay due attention to the coaches' occupational circumstances and the athletes circumstances since these would identify constraints within which the coaching process would operate.

2.25 There is a substantial literature on the coach within an institution (Sage 1975, Sabock 1979, Gallon 1980, Jones et al 1982, Duquin and Tomayko 1985). Much the greater part of this literature has a USA orientation as a result of the developed career pattern within the High Schools, Colleges and Universities. One of the issues in the most recent literature is the imbalance of male to female coaches (Knoppers 1987, Hart et al 1986). The coaches' responsibilities in the management of coaching programmes and in financial, legal and administrative matters concerning human and material resource management are also covered (Sage 1973, Chelladurai 1985, Hoehn 1983, Norcross 1986). Once again there is a general assumption about the parameters of the coaching process with little conceptual clarity about the distinction between the responsibilities of the coach when dealing with the athlete directly, and those indirect responsibilities such as financial and schedule planning which create the circumstances within which the coach operates (Curtis 1985).

2.26 The vast majority of coaches in Great Britain work as part-time volunteers and this aspect of the application of the coaching process is dealt with less well (Reid 1980, Dick 1984). There is, however, an increasing literature on the National Coach employed by a sports governing body (Chutter 1982, Ward 1984).

2.27 This section of the literature is valuable insofar as it highlights the variables constraining the application of the coaching process. There has been no attempt, however, to address the question of the links and relationships, the implications, for the coaching process of being operated within the contexts described. Any explication of an ideal-type model of the coaching process, and of its application in practice, must account for the context within which the coach operates. A potentially very valuable source of support for a model is underdeveloped because of the lack of attention to, and analysis of, the coaching process when examining the occupational and organisational context.

SUB-DISCIPLINES RELEVANT TO COACHING

2.28 This review is selective insofar as it aims to draw attention to the distinctive contributions of the various sub-divisions of the coaching literature to the formulation of a model of the coaching process. The main objective is to ascertain whether or not the existing literature acknowledges a model or a number of models and the extent to which there is a consensus as to their value. However, the total literature on matters concerning coaching or coaches is very substantial. A particular example is the wealth of material on sub-disciplines relevant to the coaching process. Over a period of time, sports medicine, sports biomechanics,

exercise physiology and sports psychology have become accepted sub-disciplines in academic endeavour.

2.29 As might be expected, texts dealing with the sub-disciplines have made no significant contribution to the synthesis of the coaching process, rather they have served to fragment it. Insofar as the texts contribute to the elements of the process, for example, sports psychology and goal setting, the principles and practice concomitant with their application would form essential features of a coaching process model. Nevertheless, each area has made little pretence at complete coverage: indeed, text books are somewhat remote from application (Watson 1983, Watkins 1983, Nideffer 1981, Williams and Sperryn 1976, Noble 1988). To some extent, sports psychology can be absolved from this criticism, most likely as a result of the attention paid to the coaches' behaviours rather than solely to the athlete's performance. Saunders (1983) has reaffirmed the value of the study of these sub-disciplines and of their place in the process. He counsels against the coach's use of practice-led recipe knowledge.

"Such an approach can be justified, if at all, when we see the coach or teacher act at a technical level. However, when we see the teacher or coach claiming to act as a professional, then such an approach is not only inadequate, it is clearly unethical and therefore"

(Saunders 1983 p 12)

2.30 The case of 'training theory' is an interesting one. Although it is not a sub-discipline it draws very heavily on exercise physiology. This narrow interpretation of training will be discussed later, but the result of this has been a preoccupation with the adaptations of the body under exercise. There is a very extensive literature on various elements of conditioning the body. Each sport has its specialised texts dealing with the

development of strength or endurance. However, there are also texts dealing with the general principles. Dick's (1980) book relies heavily on the principles established by Matveyev (1981) and Harre (1982). These texts are English translations of earlier Eastern European studies. Schmolinsky (1987) is a good example of a modern text.

2.31 One of the limitations of this section of the literature is that it deals almost exclusively with physical conditioning. Despite this, Bompa (1983) makes it clear that psychological development, strategy and technique development are essential elements of the training process. The significance of this area of study is very plain. Training theory deals with planning, performance analysis and much of the direct intervention between the coach and the athlete. However, there has been some confusion of terminology. The use of the term 'training' has implied a narrow part of the process (NCF 1986) when the use of the word 'preparation' may have conveyed a more appropriate message. Shneidman (1979) supports Bompa (1983) in suggesting that the Soviet or Eastern European training model should not be interpreted too narrowly. Each author describes many factors which contribute to the sportsman's performance, albeit these are listed rather than modelled. The process -

"... is not limited to athlete training only but also includes other essential conditions which determine the process of sports training."

(Shneidman 1983, p 101)

2.32 The literature on training theory can be very specialised indeed. In addition, there are limitations imposed by the concentration on physical conditioning and individual rather than team performance. Sports which rely heavily on the display of physical conditioning have embraced this model. A very significant omission to the whole process is the absence of

attention to competition. Nevertheless, training theory models have the potential to make a very important contribution to the whole process. In many ways, they already have a great deal of currency, having offered a degree of conceptual clarity within the vacuum created by the absence of a model of the coaching process. The writing is open to the criticism of not stating the assumptions about the context within which it will be applied. Nevertheless, there is a rational, systematic approach to planning and to the enhancement of some aspects of sports performance. Those seminal texts which have tried to deal with the totality of the process have concentrated on the 'what' of the process rather than the 'how'.

SOCIAL CONTEXT

2.33 There has been relatively little comment on the social context within which sports coaching has developed (Lawrence 1979, Dyson 1981). The paucity of social and political analysis may be explained partly by the absence of a model of the coaching process with its attendant key concepts. Without these basic features it is impossible to evaluate the impact of sports policy or social trends on the development of the coaching enterprise. In any case, the sports sociology literature in Great Britain is underdeveloped in comparison to other foci in society or in comparison to sports science.

2.34 The greater part of the literature is published in the United States of America and it reflects the dominant sociological analysis paradigm (Hargreaves 1982). This consensus, structuralist model can be seen in most of the sports sociology textbooks (Loy and Kenyon 1969). In those texts which devote space to coaching, this paradigm is evident (Coackley 1982). There is a very serious shortage of sociological analysis in the

'critical' tradition (Morgan 1983). Such an approach is illuminated only by the scarce references to gender studies (Knoppers 1986, White 1987), and by the Marxist analyses of sport. In the latter, coaches are assumed to be contributing to an achievement orientated and commercialised practice which mirrors the work ethic (Brohm 1978). Such a view is open to criticism but the lack of weighty sociological analysis has left the stereotype of the coach as the target.

- 2.35 In the absence of a model of the coaching process, there is no substance to the analysis of coaching behaviours. Sociological writings have rested on the occupation of coaching and it is characterised by the United States career coach. Social context literature has not highlighted any writing directed towards an analysis of the coaching process. It does highlight, however, the need for such an analysis.

CONFERENCES ON SPORTS COACHING

- 2.36 It is particularly disappointing that collections of papers arising from recent conferences devoted to coaching and coaching issues should be devoid of examples of attempts to work towards a model. Taylor (1974), Massingale (1975, and Simri (1980) have edited such collections and these exemplify the taken-for-granted, assumed business of coaching. Pieron and Graham (1986) edited the papers presented at the Los Angeles 1984 Olympic Congress which had a sports pedagogy and elite sports section. The former concentrates on teaching behaviours and the latter is devoted entirely to sports performance. The collected papers of the Commonwealth Games '86 Conference (1986) were devoted entirely to coach education and the professionalisation of coaching. Despite the

comment from the paradigm paper to the effect that a coaching process model was required, the response papers offered no solution.

"Models of the coaching process have received little attention in Britain. As a result, explanations of the constituent parts of the process and analysis of its operation in practice are not available for the simulation of coaching behaviour in training courses appropriate to various stages of sports development."

(Lyle 1986, p 5)

Each collation of papers is representative of the sub-divisions of the coaching literature cited in this review. None offers a model of the process although a small number have made some contribution to the debate. More significantly, there is little to suggest that these conferences have addressed themselves to the issue.

COACH EDUCATION

2.37 A number of books and pamphlets representative of coach education programmes and their official philosophy exist and can be analysed for the extent to which they are based on an explicit coaching process model. It is evident from an analysis of the Canadian programme (Coaching Association of Canada 1979) that an official philosophy exists but there is no explicit model. Gowan (1975) comes closest to explaining a model when he identifies the features of a closed loop system leading to enhanced performance.

2.38 The Australian programme textbook (Pyke 1980) follows a 'role descriptor' model as does the National Coaching Foundation (1986). The latter, however, has recognised that a process exists despite not being able to describe it (BANC/NCF 1986). The ACEP programme in the

United States has a clearly identifiable, humanistically-orientated philosophy but no explicit model. There is a tendency in all of the above for the earlier stages of the coach education programme to be 'role descriptor' led and the later stages to have an explicit sports science emphasis, but without a process context.

2.39 As one might expect, sports specific literature has paid little attention to the general process. Indeed, these texts have paid scant attention to the coaching process within their own sports. Once again, these sources operate on an assumption of coaching practice familiar to the reader. The content of the greater number of these texts concentrates on the techniques and tactics of the sport. Other elements of performance receive less consideration. There are, however, isolated examples of sports specific literature making a general contribution. This may be in coaching philosophy (Weir 1978) or session planning (Cook 1982).

TEXTBOOKS ON COACHING

2.40 The coaching profession in the United States is centred on educational institutions and has strongly developed links with the physical education profession. The development of this career pattern has spawned a plethora of textbooks designed for the undergraduate market. As might be expected, there is a very wide variety in quality and purpose. These texts, however, offer no succour in the search for models of the coaching process.

2.41 Sabock (1979) is a good example of the genre. The text demonstrates an emphasis on the coach rather than coaching, and takes an institutional perspective. In addition, there is a 'role descriptor' approach. This

approach is shared by Gallon (1980) and Jones et al (1982) although the latter makes the useful distinction between personal coach-athlete qualities and professional responsibilities. The 'role-descriptive' approach is common (Fuoss and Troppman 1981, Neal 1978).

AUTOBIOGRAPHICAL ACCOUNTS

2.42 There is a grouping of sources which might not be expected to generate any systematic account of the coaching process, but might provide supporting evidence for the appropriateness of any model in practice. Autobiographical accounts of sporting careers form part of popular literature. These contain insights into coaches, their philosophies and practices, and would offer experiential evidence as to the applicability of appropriateness of elements of a model.

2.43 One section of this literature consists of books purporting to be written by a famous sportsman (Boycott 1981) or about a famous sportsman (Borg 1980). More interesting are those accounts of participant observers. There are several studies of soccer clubs in Britain (Davis 1974, Dunphy 1976, Gowling 1978). In addition, there are books written about or by coaches themselves (Cerutti 1967, James et al 1980, Taylor and Langley 1980, Beal 1985).

2.44 Because of its place in the popular literature, this literature is very selective, being dominated by the popular sports. This will have the effect of concentrating analysis onto top-level, commercialised sporting practice. Although not systematic, these sources offer some assistance in evaluating the appropriateness of a model of the coaching process.

COACHING AS A PROCESS

2.45 Contained within the literature, however, are isolated examples of contributions that are helpful in supporting the construction of a model. Certainly, the acknowledgement that a process exists is central to this project. Coaching has been described as a commodity to be given or applied to an individual or team in the rather general goal of improving performance. Most likely the concentration of emphasis on the coach rather than the process itself has been the explanation for this: nevertheless, this assumption is no longer valid and there is a general acceptance of a serial course of action requiring coordination and integration. This had developed from the learner/teacher model to a recognition of the multi-variable nature of the process.

"The coach provides systematic guidance for the learner and is available to predict, indicate and explain the signs as the learner moves along the learning sequence".

(Strauss 1974, p 82)

2.46 This early recognition of the process has been superceded by Ram (1985) who acknowledges the coordination of factors involved and highlights contextual variables of place, climate and purpose. Very recent literature (BANC/NCF 1987) employs the term 'coaching process' and identifies planning, implementation and evaluation, without moving to a model of the process itself.

2.47 Interestingly, the question of modelling the coaching process has received some very recent attention. Franks et al (1986) present a model with which to analyse the coaching process. It is admitted, however, that the model is not comprehensive and is directed towards 'direct intervention'.

"... this model does not fully describe all the aspects of human endeavour that enters into athletic performance ..."
(Franks et al 1986, p 2)

It does illustrate very well the use of an information processing model to describe the interaction between coach and athlete.

2.48 Fairs (1988) clearly identifies coaching as a process:

"It is clear that coaching is not a haphazard trial and error affair but involves a series of orderly, interrelated steps. There is a specific coaching process to be followed for organising coaching actions".

(Fairs 1988, p 17)

He contrasts this with a tradition of 'custom, intuition and common sense', and then elaborates a 5-step process leading to improved performance - data collection, diagnosis, prescription of action plan, implementation and evaluation. This is really no more than a sophisticated input/output model but he does recognise the influence of a number of important characteristics. He concludes by describing the model as an intellectual technique to assist coaches in practice.

2.49 Leddington and Wootton (1986) attempted to produce a conceptual model of the coaching process by a systems analysis approach. Their comments illustrate very aptly the difficulties of model construction.

"It proved extraordinarily difficult to identify anything that allowed the formulation of a root definition and conceptual model. The image of coaching was of an athlete-coach interaction system but any idea of coaching as an organised set of activities was simply unavailable and could not be directly articulated."

(Leddington and Wootton 1986, p 282)

The authors recognised the absence of systematic representations of the process of their attempt to create a computer enhanced model. However,

they did not attempt to redress the problem, and were unable to cope with the multi-variable approach required.

2.50 An earlier emphasis on learning/teaching behaviours resulted in a number of simplistic input/output models. This has been replaced by a recognition that the process involves coordination of a number of coaching behaviours and athlete behaviours. Therefore, attention has been paid to coach-athlete interaction, particularly communication and teaching behaviours in the training or practice session. Attention has also been given to planning, match coaching and the knowledge and skills required to enhance performance, in particular physical preparation. Duthie (1986) is of the view that there has been a lack of rigour in approaches to the analysis of coaching behaviour. He suggests that many of the problems besetting the study of coaching would not exist,

"if the set of operational definitions or carefully articulated key concepts needed to typify coaching behaviour were already available".

(Duthie 1986, p 202)

CONCLUSIONS

2.51 There is a clear indication from the preceding sections of this review that the literature associated with coaching is not very helpful in the search for a model of the coaching process. Confusion of target populations, context-free examination of single variables, a reductionist perspective in analysis and an emphasis on role descriptors and personal qualities have limited the value of the literature for that purpose. The complexity of the variables involved has proved to be a limiting factor. The difficulty of describing coaction between coaching behaviours, performance enhancement variables and process management principles would appear

to have deterred academics and coaches alike. The result of an absence of conceptual clarity and consensus on underlying theoretical structures is that the attempts at model construction and analytical clarity which follow must be exploratory and pioneering.

2.52 There are no explicit models of the coaching process with which the literature has been able to achieve a conceptual clarity to underpin study. The coaching process has been largely assumed. Despite a focus on the practical rather than the theoretical, the issues of coordination or integration of the coaches' responsibilities appears not to have been addressed to the extent that might have been expected. Nevertheless there has been a considerable emphasis on the strategies for direct intervention between the coach and the athlete. There is a substantial and growing literature on the professionalisation of coaching.

2.53 In the period of time since the first compilation of this review, there have been no substantive additions to the literature which would effect significantly this evaluation.

2.54 In summary, the comment that an absence of conceptual clarity has bedevilled enquiry into coaching and the coaching process has been demonstrated to be true. No models of the process are explicit in the literature. Indeed, there is lack of systematic rigour throughout the literature. The absence of conceptual clarity has prevented even behavioural research from making clear the assumptions about the process on which the investigation has been conducted. Nevertheless there has been a perceptible change in the literature towards a recognition that the coaching process is a multi-variable affair. It is not a lack of recognition of the problem, which has resulted in the absence of

a set of theoretical tools with which to analyse, comprehend and subsequently develop the business of coaching.

REVIEW OF LITERATURE AND MODEL CONSTRUCTION

2.55 The summary above has identified the perceived shortcomings of the literature in terms of model construction. For this reason, it is hardly surprising that few sources have played a significant part in the devising of the model which follows. It should be noted, however, that all categories of literature have informed the underlying perceptions within which the model has been shaped. Examples of learning from the omissions of the literature can be taken from the attempts at quantitative analysis of coaching behaviours and the universal absence of stated assumptions underlying authors' work.

2.56 There have been three distinctive and valuable contributions to the process of constructing the model. Firstly, there are a number of sources that have attempted to delineate central elements of the coaching process, albeit without an attempt at integration and synthesis (Rushall 1979, 1985; NCF/BANC 1987.; Franks et al 1987; Fairs 1988). These have proved useful in devising the core elements of the coaching process. Secondly, a number of wide-ranging sources have informed the indirect responsibilities of the coach (for example, Hoehn 1983; Norcross 1986; Curtis 1985; Dick 1985, 1986). This contribution is most evident in the section dealing with the application of the model. The third group of sources has perhaps been the most significant. Although the sources relevant to the sub-disciplines of sports psychology and training theory may be criticised for not synthesising other elements of the process, these two areas in particular underpin, quite substantially, the

preparation of the athlete/team (for example, Nideffer 1981; Bompa 1983). For this reason, texts representative of this category have made an extensive contribution to the shaping of the direct intervention process in the coaching process model.

CHAPTER

The construction of an id model of the coaching

The construction of an ideal-type model of the coaching process

The chapter describes and outlines the model of the coaching process. The model is developed in response to the need for a conceptual framework which will assist in the understanding of the coaching process. The model is structured in part to provide a conceptual framework for the coaching process.

Introduction

Major Assumptions

General Concepts

Conclusion

The model presented below is a general one which is intended to be applicable and to all coaches. It is an ideal type model the purpose of which is to provide a conceptual template with which to analyse, explain and predict the actions and responses of the coach.

CHAPTER THREE

THE CONSTRUCTION OF AN IDEAL-TYPE MODEL OF THE COACHING PROCESS

3.1 This chapter describes and explains the construction of the model of the coaching process devised in response to the perceived problem of a lack of conceptual vehicle with which to understand coaching behaviour. Its contents are structured in the following manner:

Introduction

Prior Assumptions

Starter Concepts

INTRODUCTION

3.2 The model presented below is a general one which is intended to apply to all sports and to all coaches. It is an 'ideal type' model the purpose of which is to provide a conceptual template with which to describe, understand, analyse, explain and predict the actions and consequences of action of the coach.

3.3 The use of an ideal type model of social processes was a methodology advocated by Weber, one of the founding fathers of sociology. Weber argued that ideal-type models permitted the empirical social scientist to

work with clear reference points in studies of actual social behaviour (Albrow, 1990). In order to understand the significance of particular cases and to identify influential factors, therein, it was necessary to construct an ideal-type model. Such a model would describe the outcome of a purely rational course of action in constraint-free conditions. The scientist would not expect the model to correspond with observations of social practice although, being derived from concrete phenomena, it must bear resemblance to reality.

- 3.4 Having constructed a model which is based on a rational approach and which is constraint-free, the scientist is able to compare existing situations with the model and in doing so to highlight those features most deserving of analysis and further study. The task for the scientist is to identify the essential elements of a social process, to unite and interrelate these into a particular structure in such a way as to represent the actions of an individual pursuing a goal in a purely rational manner.

Atkinson, paraphrasing Weber, sums this up,

"the construction of a purely rational course of action based on full objective understanding of the situation serves the scientist as a type which has the clear merit of understandability and lack of ambiguity. by comparison with this it is possible to understand the ways in which action is influenced by such irrational factors of all sorts, such as efforts (intuition) and errors, in failing to understand the situation as objectively as the scientist."

(Atkinson 1971 p

68)

- 3.5 Following Weber's methodology, the objective of this study is to develop an innovative rational model of the sports coaching process, concentrating primarily on the actions of coaches on the assumption that it is important for the performance of individual athletes/teams.

- 3.6 In order to construct the ideal-type model, a logico-deductive methodology is employed. This approach appeals to the rational, logical application of the core elements and processes concerned with the process of coaching. All constructions represent a synthesis of existing concrete phenomena (Bryant 1976 p 237) and ought to be able to be defended as corresponding to reality. Inevitably, the constructions, notwithstanding the attempts at objectivity and detachment, are reflective of the availability of knowledge and the scientists exposure to it. It is important, therefore, to clarify the sources contributing to this exercise.
- 3.7 The construction of the model has been informed by the literature to the extent described in the previous chapter. The absence of existing models provides the reason for the work but fails to provide any supporting structures. However, the literature is informative on sub-processes within coaching. The basis for the logico-deductive methodology is a combination of the literature and the personal experience of the author.
- 3.8 The experience of the author as performer, coach and coach educator has been a major influence in this exercise. Performing experience encompasses all grades of soccer from student representative honours to professional soccer and all levels of volleyball from representative honours to full internationalist. Coaching experience is very extensive . In addition to coaching an athlete to national standard, the author has coached a club side to Great Britain champions and numerous national league and cup honours; Great Britain students' team at World Student Games in 1983/ 1987, 1989, and 1991; and the full Scotland men's international side in over 30 international matches. As a coach educator, the author is Director of the only full-time vocational course for sports

coaches in the UK. This has entailed exposure to the developing ideas, both formally and informally, of over 60 experienced coaches in more than 20 sports. In addition to this experience the author has served on 'think tanks' devising national coaching strategies, is a member of the Scottish Sports Council's Coaching Consultative Group, and is Coordinator of the National Coaching Centre in Edinburgh.

3.9 The statement of prior assumptions which follows is particularly important because of the logico-deductive methodology employed. These assumptions cannot, of course, be isolated from previous experience and are a statement of fundamental beliefs and values in addition to being reflective of a summative theoretical stance. In themselves, the assumptions are a contribution to the development of a theory of coaching since the review of literature has identified a dearth of material which moves beyond taken-for-granted assumptions about coaching.

3.10 The text goes on to identify and discuss the key concepts which are the 'building blocks' of the model. These starter concepts are essential elements in the construction and functioning of the model. Nevertheless, it is important to distinguish between these concepts which may be processes with their own principles and operating mechanisms and the unique interaction of these concepts which characterises any coaching process. The key concepts and assumptions have an additional significance in that each is necessary for evaluating demarcation of boundary issues surrounding the coaching role and for evaluating the consequences of partial application of the model.

3.11 Thereafter, there is a description and explanation of the model of the coaching process. In this section there is an acknowledgement and

discussion of the difficulties involved in describing a process. A general perspective of the model identifying structure and function is followed by a more detailed explanation of the specific procedural mechanisms through which the structures are operationalised.

- 3.12 The selection of the essential core elements of the coaching process has been made with the assumption that major limitations and constraints e.g., those relating to facilities, time and commitment of athletes and coaches, can be incorporated into the model at a secondary stage of development. Following the explications of the model, these constraints and limiting factors are discussed under the general fabric of the application of the model.

PRIOR ASSUMPTIONS

- 3.13 This section identifies the prior assumptions on which the model is predicated. These are divided into assumptions concerning methodological/theoretical issues and assumptions concerning model construction.

The following theoretical and methodological assumptions underpin the initial work:

- 1 Sports coaching (including self-coaching) is an accepted and recognised but not universal practice of leadership within sport. This leadership role is to assist athletes(s), groups or teams to improve performance in competition.

- 2 It is meaningful to conceptualise a generalised coaching process, i.e., a coordinated, integrated and serial practice towards a single (albeit multifaceted) set of performance goals.
- 3 The athlete or team competes in contests within the accepted practice of the sport.
- 4 Benefit can be derived from the use of a logico-deductive methodology.
- 5 The production of an ideal-type model in a relatively unexplored field constitutes a useful first step in theorising.

3.14 Prior assumptions concerning model construction

It is useful to develop a model of the coaching process predicated on:

- 1 The rational pursuit of objectives
- 2 Relationships between the coach and the athlete(s)/team which exhibits the following features:-
 - (a) stability and continuity over a period of time
 - (b) an empathy by the coach for the athlete(s) and his/her (their) intentions
 - (c) a commitment by each party to a goal-orientated relationship
 - (d) effective communication.

- 3 The assumption that strategic improvement in the component parts of sports performance over time will effect an improvement in overall performance.
- 4
 - (a) acceptance that the application of basic principles of learning and instruction can enhance sports performance
 - (b) access to systematic coaching knowledge and practice led by coaches will facilitate optimum learning.
- 5 The assumption that any athlete is voluntarily involved and highly committed to improved competitive performance (subject to subsequent modification).
- 6 A recognition that improved performance parameters are constrained by the athlete's inherent capabilities, including intellect and physique.
- 7 An assumption that development of sports performance is non-linear given a non-mechanistic response to input, the complexity and number of variables involved, and the player probability factor in competition.
- 8 The importance of a relative measurement of successful outcomes.
- 9 The assumption that material/environmental constraints on the coaching process can be added to the basic model as a result of subsequent research e.g.
 - (a) finance
 - (b) access to appropriate facilities

- (c) equipment
- (d) access to appropriate competitions
- (e) number and distribution of hours for preparation.

STARTER CONCEPTS

3.15 The following key concepts have been formulated as an integrated set:

Information base	the information available to the coach and athlete
Knowledge and skills of the coach	the coach's knowledge and skills
Athlete capabilities	the athlete's capabilities
Performance analysis	the analysis of performance
Regulation of the process	the regulation of the process
Systematic, progressive system	the systematic and progressive system
Planning	the planning of the process
Operationalisation	the operationalisation of the process
Competition programme	the competition programme
Preparation programme	the preparation programme
Goal setting.	

These key concepts are essential elements in the construction of the model. Each is described in detail and the reasons for its critical contribution are explored. In general, the identification or selection of these 'building blocks' is reflective of the contributions which they make to the requirements of a process and of this process in particular. Thus, these starter concepts are logical inferences from the a priori assumptions and, at the same time, more general expressions of process, structure and function applied to the accepted practice of sport.

3.16 Thus the set of concepts encompasses the actions of the primary actors, that is the coach and the athlete(s), and the means e.g. planning and regulation, by which they implement the process. Further concepts have sports performance as an underlying basis and recognise the organisation and social setting within which the coaching process takes place.

INFORMATION BASE

3.17 An adequate information base is an essential prerequisite for a rational and systematic process. A considerable number of the processes or elements within them and the actions which follow from them are dependent upon an adequate data base. Monitoring, evaluating, planning and all sorts of decision making can only be carried out in an informed and rational manner with the availability of the relevant data. These needs can be particularised within the coaching process.

For example, a general objective such as efficient communication and a highly specific task such as the determination of training loadings require information to be available. Were it not available, the enormous range of actions dependent upon it would become impossible, meaningless or unsystematic.

3.18 In practice, information is particularly significant in the analysis and interpretation of performance components. In as much as this data forms the basis of day-to-day training goals the evaluation of progress, the measurements of success, no matter what the criterion might be, will be more meaningful if it is able to be substantiated by recourse to objective data.

3.19 Without adequate information on a number of areas rational planning and development is impossible. Much of this will concern the athlete. For example, characteristics such as intelligence, maturity, anthropometric measurements, previous performance history, performance component scores, physical and psychological parameters and medical history are necessary. Furthermore, the time available to the process and the influence of school, occupational, parental, financial and other social commitments are important constraints about which the coach must be aware. In addition, there will be background or supportive data about the sports milieu in which the coach is operating. For example, the calendar of events within his/her sport, development trends, facilities, the quality of likely opposition, standards of performance relative to the athlete's goals and level of competition, organisational and administrative structures within clubs, national governing body, local authority, sports councils and sources of grant-aid are basic data which the coach will draw upon in day-to-day operations and advice to athletes.

3.20 In practice, and of relevance therefore to coach education, it is important to distinguish between information which is in the public domain and about which the coach requires awareness and knowledge of sources and that which must be actively created by the coach him/herself. The latter will refer, in the main, to that which is athlete generated. Since the proposed model assumes an ideal-type framework, each sport is assumed to have generated and disseminated information in such a way that it is available to coaches. The secondary stage development of the model will acknowledge, however, that there are differences between sports in the extent to which such data has been made available to their coaches.

3.21 There is a fine, but distinct, line to be drawn between the coach's explicit use of knowledge and the coach's awareness of information. Clearly, once the coach has assimilated the data it can be said to form part of his accumulative knowledge. However, knowledge will be reserved, as a concept, for that which the coach interprets and translates into action and for the internal organisation which allows for the understanding of laws and principles. Data remains the raw material which is essential for internal action but which need not be assimilated beyond its extant source.

3.22 The information base necessary for the coaching process will be accumulated in a variety of ways. That information which is in the public domain is collected and collated and available for dissemination through publications courses etc. Data related to the athlete or his/her performance is more likely to result from some form of assessment procedure or recording procedure. In practice of course, this objective data will be supplemented and perhaps complemented by a myriad of observations and reactions to observation which will shape the coach's perception and interpretation of events.

KNOWLEDGE AND SKILLS OF THE COACH.

3.23 Prior assumption of leadership and an element of direction by the coach makes it reasonable to posit that the coach's personal characteristics and developed abilities will make a very significant contribution to the coaching process. The personal qualities displayed by a coach and the level of developed abilities are matters of application and will be shown to affect the efficiency and effectiveness of the process. Specific and process-related abilities will be necessary to achieve objectives in a purposeful and rational manner.

3.24 The coach's knowledge and developed skills are an essential element in the model of the coaching process. These specific requirements can be deduced from the particular abilities needed to operate the process. Knowledge and skills can be derived from the constituent elements of the process, as stated in assumption and definition, and the mechanisms required to operationalise a process in general and this process in particular. Constituent elements refer to the actors involved, their broad intentions and the nature of sports performance and involvement: the mechanisms are described by the need to plan, implement and evaluate the process.

3.25 If the process requirements are applied within specific coaching parameters, planning, implementing and evaluating can be translated into a number of more specific and situated responsibilities:

- 1 recruitment and continuity
- 2 goal setting
- 3 devising schedules, unit plans, long-term strategies
- 4 practice management i.e. devising, organising and conducting training sessions and programmes
- 5 contest management
- 6 resource management, including human, material and information resources.

3.26 Execution of the above responsibilities requires developed skills of:

- (a) communication : verbal, non-verbal, written, demonstration, feedback, coping strategies, behavioural model.

- (b) management : organisation, direction, administration, finance management.
- (c) Leadership : motivation, negotiation, problem solving.
- (d) Decision making : observation, analysis, evaluation, reflection, crisis management.
- (e) Selection of content : observation, analysis, selection, ordering, presentation.

3.27 One further developed skill is a proficiency in the sport concerned. The ideal-type model will assume a degree of proficiency which allows the coach to demonstrate as necessary, to provide opposition or engage in training as required and gives the coach experiential knowledge which will increase his/her awareness of the demands of the sport. In practice, the application of this skill will be heavily conditioned by the standard of the athlete, the nature of the sport and the physical involvement of the coach in the training tasks.

3.28 The execution of each skill within the responsibilities outlined above requires knowledge on which to base analysis, evaluation and action. It follows from the responsibilities listed above that knowledge will be required about sports performance and the component parts of performance in the sport concerned; about human reaction to exercise and competition; and about the principles governing the transmission or implementation of discrete elements of the process. More specifically, coaches make use of:

- (a) Sports specific knowledge
 - i.e., techniques, tactics, physical conditioning, psychological requirements, equipment, facilities, standards of

performance, development trends in sports practice, technological innovation.

(b) Established sub-disciplines

i.e., sports medicine, exercise science, sports psychology.

(c) Developed principles of practice

i.e., training theory, coping strategies, practice management, contest management, planning, communication styles.

ATHLETE CAPABILITIES

3.29 The athlete is the primary actor in the model construction. By definition, increasing the athlete's capacity for competition performance is the overall intention of the process. The degree to which the athlete's capacities can be improved, therefore, is the principle influence on the process. Current capacity plus potential improvement acts as a constraint within which the coaching process must operate. This is most obviously to be observed in goal-setting and the devising of training and competition targets. Given that these will be significantly associated with evaluation of the progress and success of the process, the assessment of athlete capabilities is a very important factor. However, the degree of improvement and the estimation of potential standards is a far from objectives or simple matter. A number of hereditary endowments e.g. heights, arm length and body shape, can be altered only slightly. Developed skills improvements have to be estimated from forecasting skills and abilities. Given an uneven human reaction to stimuli, poorly developed forecasting skills and the fact that improvements may be relative to competitors' levels of performance, the assessment of potential performance standards is far from an objective science.

3.30 Athlete capabilities, then, are essential elements in the process since they are necessary for the determination of goals, plans, schedules, targets and the evaluation of success. Even in an ideal model, the assessment of potential must be a problematic issue. In practice, the complexity of the factors contributing to performance success ensures that it occupies the attention of the coach to a considerable extent. It is very important to note that the problems of incorporating athlete's current and potential performance into the process is considerably greater for team sports.

3.31 The athlete capabilities which it is necessary to assess, evaluate and consider for improvement are anthropometric measures, physiological functions, psychological dispositions, developed skill levels, medical/health constraints, socialability and intellect. Those contributory features which are most often targeted are improvements to the efficiency of the energy systems, muscular force production, volitional control of psychological responses, neuromuscular control and movement patterns, situational decision-making, and responses to team pressures.

ANALYSIS OF PERFORMANCE

3.32 Performance is central to the coaching process and the recognition that performance can be improved by increasing capabilities in its component parts forms part of the assumptions on which the model is based. Furthermore performance per se can be assessed and evaluated in terms of relative position, time, score etc., but can only be explained or understood in component terms. Analysis of performance is a necessary part, therefore, not only of the training process but also of the communication medium between coaches and athletes. Analysis,

explanation and evaluation of performance episodes depend very much on an adequate conceptualisation and language about performance.

3.33 The rationally orientated coach exerts a direct influence on the stable component variables and prepares an athlete for less predictable contingencies. It is important to recognise that performance can be influenced by both stable and unstable factors. Stable factors such as physical condition and tactical planning are able to be controlled and, given a high level of player probability, predicted. Unstable factors include the weather, officials, and, to a degree, opponents, and are less controllable or predictable. An adequate analysis of performance is necessary both to recognise and cope with this fact.

3.34 An analysis of performance will recognise three grades of components, primary, secondary and general. These are differentiated by the centrality of their contribution to an immediate performance episode.

Primary factors are:

- (a) Technique: cyclic/acyclic, stable environment/unstable environment, ideal/individual variation.
- (b) Tactical problem solving: individual/team, tactics/strategy.
- (c) Physical condition: strength, speed, endurance, flexibility, coordination.
- (d) Special psychological conditions: anxiety, concentration, relaxation.

Secondary factors act as constraints within which performance takes place i.e. medical constraints, social relationships, coach-athlete and athlete-athlete relationships. There are a number of other factors which

may exert only a general influence e.g. general psychological dispositions, player probability and equipment. On the other hand, individual sports may have particular requirements and equipment, for example, is often a primary factor in performance.

The availability of an analysis of performance is very important in the day-to-day responsibility of the coach as evidenced by its place in the training regime. In addition, it is very necessary for the synoptic overview of the whole process. It will be suggested later that the synthesis of the component parts and the control of their effect on each other is a major task for the coach. This is compounded by complex sports and the influence of athlete numbers in team sports.

REGULATION OF THE PROCESS

3.35 For the process to proceed in a systematic, orderly fashion requires a degree of regulation. A series of control mechanisms in order to maintain an efficient and effective system is a consequence of a rational pursuit of objectives. The coaching process involves a series of interrelated and complex elements and a model of the process requires regulatory controls to ensure progressive and systematic operation.

3.36 A number of the sub-processes in fact imply regular elements. For example, principles of learning and instruction stress feedback mechanisms. One of the objectives of the preparation programme is to reduce the unpredictability of performance despite its non-linear and complex nature.

3.37 An ideal-type model of the coaching process would be expected, therefore, to indicate the means by which the system is regulated. In summary, these are provided through:

- (a) a planning element
- (b) feedback mechanisms in training episodes
- (c) a performance component monitoring programme
- (d) short, medium and long-term goals, and
- (e) competition targets.

3.38 In addition, regulation is applied through a readiness constant. Potential performance capacity acts as a constant yardstick to which the process can be measured. Significant deviations from the expected level would act as a trigger-mechanism for the coach, and a process of reassessment would follow.

SYSTEMATIC, PROGRESSIVE SYSTEM

3.39 An improvement objective was an important assumption underlying the model of the coaching process. A rational approach to this implies a methodological approach with the intention of controlling the variables within the system. This key concept brings to the model the principle that improvement should not occur by chance but by a planned controlled process.

3.40 The aim for constant improvement implies that the athlete should be subject to increasing demands and goals and targets set accordingly. Progression is most clearly illustrated in the principles applied to improvement in physical condition. Established principles of overload, progression reversibility and specificity will be translated into training

demands which place increasing levels of intensity of loadings onto the athlete. Similar if less obvious progression will be demonstrated in other training demands, for example, increased technical complexity, more tactical variation, increased control of anxiety. Clearly, the effect of change in one component on the status of the others is more acute because of the interdependency of the performance components and reinforces the need for a systematic approach.

At a practical level, the effects of these principles will be most obvious in the levels of intensity employed in the preparation programme. However, there are implications for the regulatory, monitoring programme to ensure progression and to assess its efficiency.

PLANNING

- 3.41 Planning is an essential element in devising the model. Not only is it a logical consequence of a desire for a rational approach, but also a logical consequence of many of the starter concepts on which the model depends. The complexity and the number of variables involved in the coaching process, the periodisation element of training theory, the need to manage resources and the ideal of an efficient, effective system are all better achieved if planned. Planning implies a degree of predetermination of forward preparation and an accounting for consequences of action over a given time period. There is a clear intention to reduce chance and unpredictability and to harmonise contributory elements in the process.
- 3.42 Although an ideal model is predicated on the assumption of a rational approach to planning, in practice there are likely to be a series of pragmatic limitations and constraints. When considering the application

of the model, it will be clear that individual coaching philosophies are reflected in the degree of planning attempted. Furthermore, it is likely that no one planning model would suit all sports and that this is more fundamental than simply the degree of application to the ideal by the coach. Thus a categorisation of sports by competition programme into the following groupings has very significant implications for the planning mode adopted.

- (a) Target sports : identifiable single targets, unrelated competition throughout the year, seasonal competition (for example, athletics, swimming)
- (b) League sports : identifiable multiple targets, related competition throughout the year, seasonal competition, principal goal-targets are short-term (for example, soccer, rugby) and
- (c) Circuit sports : competition largely in tournament form, not seasonal, short and long-term goal-targets, (for example, golf, tennis)

Thereafter, principles of periodisation can be applied to the determination of macro, meso and micro-cycles and individual preparation units. An element of contingency planning would be an expected feature of the coaching process. A recognition that the coach and athlete do not control all of the variables involved results in the contingency element being a feature of the planning process rather than an accommodation to inadequately applied procedures.

3.43 Elements of a common process are applicable in principle to all coaching activities. There will be a situational review followed by goal setting and target identification. These will be translated into objectives and particularised to performance components. A pre-planning model is devised which identifies basic parameters of the preparation, and competition is translated into a component staging model or diagram with details of preparation cycle emphasis. This guide is then interpreted for detailed scheduling of individual units.

OPERATIONALISATION

3.44 There is a significant distinction between the coaching process as a general theoretical construct and as an operationalised phenomenon that is, as it is put into practice as an individually and particularly constructed example of the process. The operationalisation process will result in a pattern of recognisable sporting practices. The model of the coaching process will account for the way in which the process is initiated and for the categorisation of the sub-divisions of sporting practices which characterise the coaching process.

3.45 For the most part, operations will be coordinated and administered by the coach. For this reason the effectiveness of the operations will be influenced by the coach's skills. It should be recognised that the direction of the process involves the coordination of a set of seemingly rather discrete elements with the result that the outcome of the whole process is greater than the sum of its constituent parts.

3.46 The operationalisation of the process may be conceptualised as initiation, followed by implementation and building into general practice. Initiation

concerns the issue of the initial contact between coach and athlete and the nature of a relationship. Whether this is the outcome of a gradual rise in the intensity of a relationship or effected through an agreed appointment procedure, there is a threshold level of involvement which must be satisfied in order to constitute a coaching process. Other features of the initiation stage include recruitment, selection and contracts or agreements.

3.47 Following upon the acceptance of an extant coaching relationship, there will be an establishment of early priorities and working practices, an element of planning and the establishment of objectives. This will eventually become the continuous process of goal-setting, planning and monitoring. Operationalisation, however, can be recognised in three principle categories of coaching behaviour:

- (a) Competition management : selection, pre-, during-, and post-competition duties and responsibilities
- (b) Practice management : devising and conducting of training sessions
- (c) Programme management : attending to finance, equipment, facilities, transport, support, personnel, administration, recording, monitoring.

COMPETITION PROGRAMME

- 3.48 The competition programme, by definition, is a key parameter of the process. A basic assumption is that athletes will participate in the accepted competitive structures of the sport concerned. The programme is more than a structure within the process: its implications extend to all parts of the process. Significantly, it underpins goal setting, training targets, evaluations of success and the broad pattern of the division of the training year into specific cycles.
- 3.49 More specifically, the competition programme is characterised by its general organisational characteristic - league, target, tournament/circuit. Given the assumption of an ideal model, a full range of competitive outlets would be available with varying standards and representative groups. The quality and sophistication of the competition programme affects considerably the level of visibility and exposure of the sport in all media. This has a knock-on effect on potential rewards, which in turn influence the degree of applicability of the ideal coaching process.
- 3.50 There are implications for the management of the process. The coach has to ensure that data is available on finance, travel, qualification arrangements, and the quality of the opposition. There are administrative matters relating to club organisation, eligibility, status and affiliation for competition.
- 3.51 The competition programme is most evident in the planning process. Major targets are identified and supplemented by qualifying targets,

supporting targets and developmental targets. A good deal of the coach's scheduling arrangements are dictated by the competition programme.

PREPARATION PROGRAMME

3.52 The preparation programme is an operational element of the coaching process and an easily recognisable feature of coach-athlete interaction. It is accepted practice that improvement in performance requires the training and adaptation of the organism and that the active expression of these principles is the pursuit of improved performance in the training or preparation programme. Principles of improvement or progression have item and workload thresholds and cannot be effectively employed through the competition programme alone.

3.53 There is an important practical distinction to be drawn between direct coaching episodes and indirect coaching episodes. The direct intervention pattern refers to the coach-led practical programme. The indirect programme on the other hand, may refer to a variety of coach-athlete interactions in which the coach may or may not be present. There are a number of factors which will constrain the pattern and extent of the programme e.g. occupational, social and other leisure commitments, and resource implications. These factors will act as filters upon an ideal programme.

3.54 The preparation or training programme is dependent upon and determines the substance of many parts of the coaching process. This mutual dependency will be evident in objectives, evaluation procedures, planning, competition programme and resource management. The programme will be expressed, for the most part, as a series of training

schedules determining exercises, drills, component emphasis, loadings and monitoring targets. These detailed schedules will be sub-parts of larger cycle planning.

GOAL SETTING

3.55 The establishing of process goals is the means through which models of the coaching process are particularised and individualised. In as much as goal setting arises directly from the athletes' reasons for involvement in the process, it is a very significant part of the process. Additionally, its significance arises not just from personal signature of the process, but because it determines many other structures within the process. These range from performance objectives, and the extent of the preparation programme to evaluation criteria.

3.56 At a general level, goal setting provides direction and purpose to the process, in addition to the evaluative criteria already mentioned. It provides a strong integrative element, linking the athlete to the operational mechanisms in the process. It is clear, therefore, that a model of the coaching process must incorporate goal setting as a key starter concept.

3.57 Goal setting will move from the general to the specific. Overall aims will be recognised and targets identified. It is likely that goals will be expressed in both personal and performance terms. The coach and the athlete will be involved in the goal setting exercise. There may need to be an accommodation between the desires of the athlete and the opinion of the coach as to their attainment. Agreement will be reached about absolute, relative and process objectives, although each may be expressed with a

margin of error. This margin of error provides an evaluation of expectations.

- 3.58 The extrapolation of the performance and preparation component requirements necessary to achieve stated goals is a matter of analytical deduction but is not a simple task. In addition to the coach's capacity for analysis and deduction, her or his previous experience will influence the course of action chosen. It is likely that there will be a number of courses of action which are the product of appropriate analysis and deduction. A coaching process applied in a team sport context will involve a multiplicity of interrelated and interdependent individual and team goals which will make the goal setting exercise more complex.

SUMMARY

- 3.59 It has been posited on the basis of practical experience and the analysis of the literature that the 'building blocks' identified above are the principal elements of the coaching process and provide a conceptual basis for the analysis of coaching effectiveness. These 'starter phenomena' are related to the basic assumptions underpinning the model and logically relate to them. Additionally, however they embody principles about the elements of the process itself rather than of model construction alone.

The starter concepts provide a means of defining key elements of the coaching process. Objectives, performance components, planning and the points of contact between athlete and coach were particularly significant. The exposition of the key concepts demonstrates their interrelatedness and interdependency.

In essence, the core elements of a more general process have been described. In this sense an evaluation of their appropriateness would centre on their capacity for describing input, treatment and output, with appropriate recognition of regulation and evaluation. Superimposed upon this rather impersonal and mechanical system is a recognition of the human relationship variables involved in the coaching process and of purposeful commitment by coach and athlete to the coaching enterprise.

3.60 What is required now is to describe a model of the process which will indicate relationships between essential part of the process, demonstrate their translation into practice and account for the consequences of a process which is incompletely applied.

CHAPTER FOUR

The model

The model is sub-divided in the following way:

Elements of model description

1. The model

2. The origin and explanation of the ideal-type model

3. The general perspective

4. The rationalisation

5. The process boundaries

6. The timing

7. The intervention

8. The study

THE ELEMENTS OF MODEL DESCRIPTION

It is intended that the ideal-type model that is constructed should be a guide for the development of sports coaches. To this extent, it would be a descriptive process. Thereafter, if the model is employed to

CHAPTER FOUR

THE MODEL

4.1 This section is sub-divided in the following way:

Difficulties of model description

Previous models

Description and explanation of the ideal-type model

- general perspective
- operationalisation
- process boundaries
- planning
- direct intervention

Summary

DIFFICULTIES OF MODEL DESCRIPTION

4.2 It is intended that the ideal-type model when constructed should describe the behaviour of sports coaches. To this extent, it would be a model "of" the coaching process. Thereafter, if the model is employed to underpin coach education programmes, it would become a model "for" the coaching process. There are considerable difficulties in portraying a model of a process. These difficulties have not been solved to the extent that a general prescription is available to all models and each one must

accommodate the problem to a satisfactory extent. Undoubtedly there are periodic elements of all processes, but stage descriptions of processes are not useful for portraying continuity, development over time and the dynamic immediacy of a process.

4.3 The coaching process is illustrative of these difficulties. Process elements are both interactive and coactive: some are interrelated but not contemporaneous. The principal stages within the process will differ from major categories of sport. The human agency feature of the process is illustrated in the fact that process evaluation will not solely be by performance outcomes. Lastly, and very significantly, variables within the process are strongly interdependent, for example technical and tactical performance components, medical and physical performance components, short-term and long-term goals.

4.4 It is necessary to acknowledge these difficulties and to devise a model which accounts for them in a satisfactory manner. Therefore, there are a number of features of the model which have been designed to answer this problem. The whole emphasis in portraying the model of the coaching process has been on demonstrating process mechanisms rather than components. Emphasis has been placed on initiating, terminating or amending elements within the process. Specifically, there are clear feedback mechanisms and all elements relate to a process 'constant' which is given context by process goals. It has been important, too, to stress the progression mechanisms. Moreover, the ideal-type model, in its own right, and whilst somewhat distant from the continuity of practice, displays a theoretical efficacy of relationships which may not exist within the constraints of particular processes.

PREVIOUS MODELS

4.5 The evaluation of the literature review has concluded that theoretical models of the coaching process have not been given a great deal of attention in Western literature. As a consequence there has been no tool for analysis of coaching behaviour and their influence on coach education and training has not been significant. In particular, the assumptions on which conceptualisations have been based are rarely specified. Lacking comprehensiveness, models have rarely claimed to be exhaustive and exclusive. There are a number of reasons for this paucity of theoretical analysis but the primary factor is the relatively low status given to sports coaching as an occupation and the consequential lack of attention by Institutes of Higher Education. At a more immediate level, sports coaching has been perceived by practitioners as an essentially practical exercise. This is exacerbated by a mystique, perhaps as a result of competition between athletes, over individual coaching processes and this has bedevilled communication between coaches.

4.6 As a result of the above, there are no comprehensive models of the coaching process. Coaches have taken a pragmatic approach in their absence, working from experiential success and investigation on a trial and error basis. Partly as a consequence of this, much of the literature has an 'episodic' emphasis, concentrating on stages within the process and paying little heed to relationships with other variables in other stages.

4.7 The model of the coaching process described hereafter is distinctive for a number of reasons. In devising the model, attention has been paid to the problem of process description; assumptions on which the process is predicated have been specified; and the implications of an incomplete

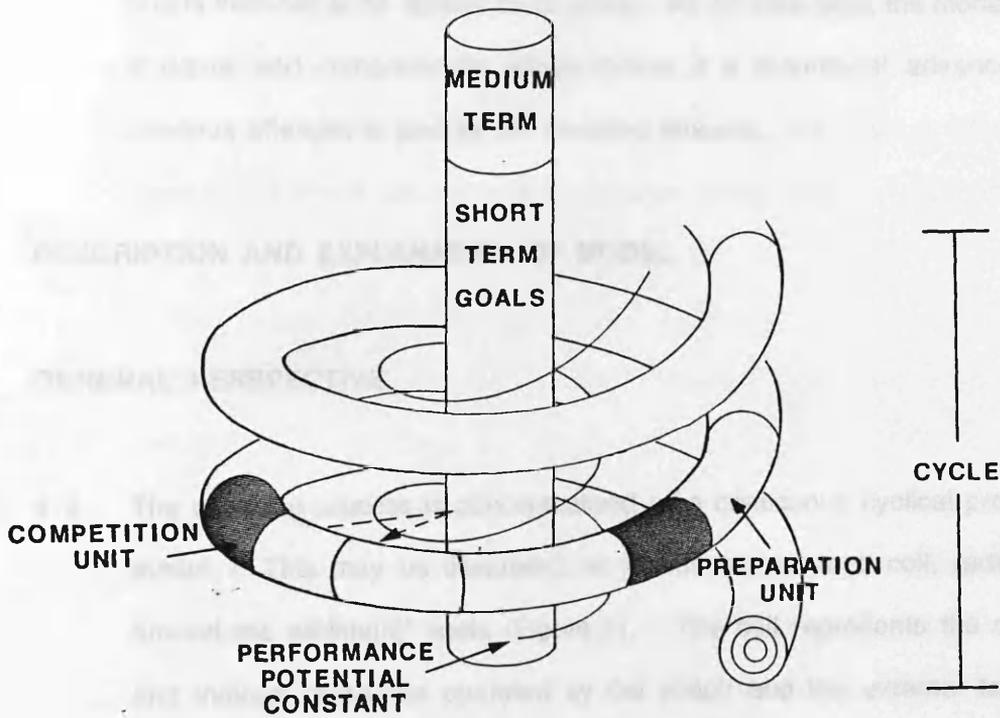


Figure 1 A Conceptualisation of the Coaching Process



Figure 2 The Structure of the Coil

application of the model have been identified. The model is a general one and is intended to be applied to all sports. As an ideal-type, the model has a rigour and completeness which makes it a theoretical advance on previous attempts to portray the coaching process.

DESCRIPTION AND EXPLANATION OF MODEL

GENERAL PERSPECTIVE

4.8 The coaching process is conceptualised as a continuous cyclical process model. This may be illustrated, in 3-dimensions, as a coil, radiating around the athlete(s)' goals (Figure 1). The coil represents the direct and indirect processes operated by the coach and the external factors bearing upon these (Figure 2). Variable frequency and duration are represented by the coil's diameter and distribution about a vertical time axis. Finally, a potential performance capacity or 'readiness for competition' constant acts as a filter between the athlete(s)' goals and the coil. This operates as a continuous and all-embracing feedback mechanism and in practice, corresponds to the pattern of the coil.

4.9 The overall shape of the model is necessary to accommodate the contribution of different but interrelated elements to a continuous state of the organism under the mediation of a pre-determined but dynamic set of goals. The variable extent coil surrounding interdependent goals allows for several important factors to be taken into account. The model is capable of accommodating a dynamic goal process, an accumulation of discrete units/interventions, a variable pattern of training and types of coach interventions and the influence of external constraints on all elements of the process. The structure and dimension of the coil

recognise changing avenues of transmission through which the process reaches the athlete, and provide a means through which intermediate and long-term goals can influence the process. The influence of external constraints is likely to be a significant factor and the filtering effect of these on the implementation of the process is acknowledged in the feedback mechanisms.

QUANTIFICATION

4.10 The model has a 3-dimensional structure which portrays and is displayed in such a way as to reflect the extent of the process in a time context. The central column, that is the representation of goals, provides a regular and stable time perspective. The height of the column equates directly to weeks, months and years and each sub-division of goals whether short, medium or long-term, has a time value.

4.11 The diameter of the coil reflects the number of hours per preparation or competition session per unit time period, for example 1 day. Assuming a given radius around the central column, the length of the coil equates to the intensity of the process within unit time period. Thus,

$$\frac{\text{diameter of coil}}{\text{length}} \times \text{unit time} = \text{intensity of preparation (per unit time)}$$

This is a significant contribution to further research into coaching behaviour since it provides an assessment criterion which is derived from a model of the coaching process. This intensity score could be empirically equated to success and failure, differences between sports, and threshold measures commensurate with successful and significant progress.

CYCLE DETERMINATION

4.12 The coil length is subdivided into major cycles. The nature and broad pattern of these cycles is determined by the competition pattern of the sport to which the model is applied. This was described previously as target, league and tournament circuit. These major categories might be more appropriately described as:

- periodic : seasonal, few and accumulative competition targets, normally independent competition scores, long preparation periods
- cyclical : regular league programmes, extended competition period, interdependent competition scores
- acyclical : irregular competition programme, not seasonal, greater number of principal targets.

4.13 The model can be described with the use of cycle terminology current in planning and training theory. Thus cycles will be defined by number, sequence and seasonal period. Each preparation or competition unit will be represented sequentially within a subdivision (micro-cycle, meso-cycle, macro-cycle) within the major time period. Common terminology is required for the cycles. Individual sports, therefore, will construct their cycle pattern using:

- pre-preparation cycles
- preparation cycles
- competition cycles

Sports may sub-divide preparation cycles using terminology applicable to their sport, for example general preparation, special preparation,

competition specific preparation. Subdivisions within the competition cycles will be reflective of the categories described above.

STRUCTURE OF THE COIL

4.14 There are three principal components in the structure of the coil: the constraints operating on the process, indirect coaching responsibilities, and direct coaching interventions. Given that this is an ideal-type model, it may seem that the constraints would not be restrictive. Nevertheless, the model must have the capacity for demonstrating where the constraints would apply. Limiting factors are of two types - those identified as prerequisites for the process but which might be inadequately represented, for example the knowledge and skills of the coach, information base etc., and the situational factors influencing the implementation of the process, for example finance, training time, weather, coach's availability. Clearly some of these factors will have long term implications and others a more short-term effect which would be taken account of in contingency planning. Feedback mechanisms operate in such a way as to incorporate these constraints into the continuous process of monitoring and evaluation.

4.15 Indirect coaching behaviours refer to those duties and responsibilities undertaken by the coach which indirectly influence or support the process. This component facilitates the third strand, the direct intervention. Elements of indirect responsibilities are planning, counselling, recording, and administration. Also included are efforts by the coach to improve his/her experience and knowledge. This theoretical construct provides an empirical tool with which to investigate the ratio of indirect/direct responsibilities required by coaches at different levels of

athlete performance. The term coaching role is much used in the literature and is commonly a generalised behavioural descriptor. A synoptic overview of the direct/indirect responsibility mix and the extent of the indirect behaviours will provide detail for a more productive and useful role descriptor.

- 4.16 Direct coaching interventions refer to the training sessions, competitions and other purposeful interactions which are characterised by the presence of the coach and athlete together and the direction of the coach towards the enhancement of performance or performance components through athlete participation. The ideal model assumes that the coach is always present when the athlete is engaged in the preparation or competition programme.

This strand consists of a systematic and progressive series of training and preparation units devised by the coach. Although sport specific, it is characterised by competition, performance component enhancement and competition rehearsal. This might be expressed as physical conditioning, rehearsal of skills, mental training or rehearsal of competition. A variety of behaviours will be expected from the coach. These will range from observation and analysis, to the more actively involved feeding, rallying, directing, giving feedback, giving encouragement or timekeeping.

PERFORMANCE POTENTIAL CONSTANT

- 4.17 Feedback routes from the direct and indirect components of the programme and the situational factors are mediated through and by a potential performance measure. This 'constant' reflects the athlete(s)

state of readiness for competition and is a factor of expected readiness over measured indices of readiness. Short, medium and long-term goals will express indices of readiness, and their translation into this potential performance measure provides a stability and continuity for the whole process.

- 4.18 This constant is used to monitor the progress of the coaching process. Significant deviation from expected levels will necessitate action for change. As a potentiality measure there is no objective translation from indices to overall results. Indices are less predictive in early cycles and with younger or less-experienced athletes. The length of the period of time between performances in competition or training will increase or decrease predictability. Furthermore, training indices will have variable predictive values in different sports. There may only rarely be a coincidence of potential performance expectations and actual practice. The influence of player probability (beyond what can be foreseen) and other situational factors, including the opposition, may be very great. Inevitably the coach will be involved a great deal in the business of 'explaining' performances. Considerable empirical work is required to determine both the intensity of preparation required to reduce the unpredictability of performance with adequate levels of accuracy and the value of predictive indices in team sports.

OPERATIONALISATION

- 4.19 A very broad description of the model and its structure has been given above. The following section deals in a more detailed way with how the model functions. It concentrates, therefore, on the manner in which the process moves forward, the interrelationships between components of the

process and the points at which discrete coaching episodes are generated. The explanation of the model will move from the initiation of the process, through planning to the implementation of the process. At this stage, major discontinuities, review, monitoring and revision processes will be identified to illustrate development and progression. At a more detailed level of presentation, the elements involved in direct intervention will be identified and illustrated in the context of individual preparation/training units.

PROCESS BOUNDARIES (INITIATION; THRESHOLDS; TERMINATIONS)

- 4.20 There are two principal questions involved in examining the initiation of a process. Firstly, when does existing practice satisfy sufficient criteria to be considered a coaching process? Secondly, what is the mechanism whereby a mutual agreement to begin the process actually results in action? No matter what the situation, a decision making process will have been entered into and a commitment made to aim towards certain specific goals. In the ideal-type model, a rational fully considered plan will be discussed and will result in a planned, phased introduction into the first cycle. At this stage, goals will be discussed and detailed preliminary targets and objectives determined. In practice, it is likely that the process will be less clearly defined at the introductory stage and many conditions of agreement between coach and athlete(s) will remain latent).
- 4.21 Beginning a coaching process may be a consequence of the development of an existing relationship where amendments to existing practice follow upon enhanced expectations. It may also be the result of a new relationship where the initial intention satisfies coaching process

definitional parameters. There is a third category, however. In team sports, new players will be absorbed into existing arrangements. This may cause the process to be amended rather than constituted anew. Figure 3 summarises the forms of contact which are possible and the broad areas of negotiation entered into.

FIGURE 3		
Contact	Negotiation	Agreement
Coach led recruitment, invitation athlete approach 3rd party referral organisational appointment	summary situational review (facilities, training time, athlete/coach commitment, equipment, finance) summary performance analysis (previous experience, major goals, potential capacity) accommodation between outline process, athlete goals and coach goals	broad pattern of involvement boundaries of relationship conditions of service (manifest or assumed) introductory programme (full review and planning, trial period)

4.22 Figure 4 illustrates the process of initiation to the point at which formal goal setting and planning takes place.

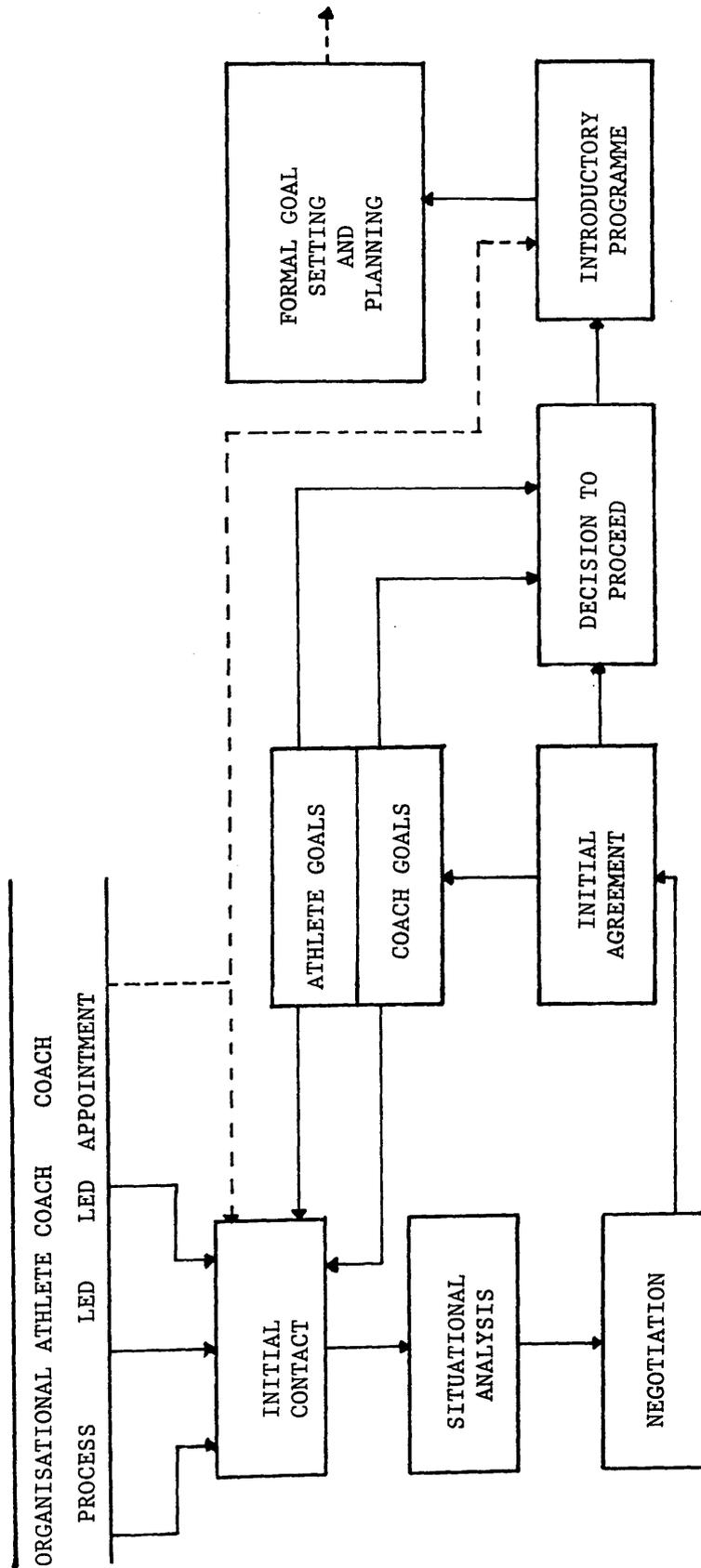


Figure 4 The Initiation Process

- 4.23 Where the coach is appointed to an organisation and is subject, therefore, to the organisation's goals, it may be necessary for him/her to compromise on goal satisfaction. However, the coach will have taken this into account in accepting the appointment and a significant deviation from complete fulfilment may be required to induce a further change of organisation. Coaches who are in professional employment may find themselves more often in situations where the initiation process is prescribed.
- 4.24 There are two further features of the initiation of a process. Firstly where the coaching process involves a team, selection and recruitment will be likely features of the process. If this is a relatively small disruption, overall goals may not be disturbed and adjustments are likely at the structure of individual units stage in the process. Secondly, the ideal model assumes a one-to-one relationship between coach and athlete in which the influence of other relationships will not be restrictive. Some empirical work is required to determine the number of athletes in specific sports with which a coach can deal adequately. The model also assumes that the relationship may be coach-team. The implications of this are clearly spelled out and imply some diminution of individualised preparation and the degree of control over the predictability of performance.
- 4.25 If it were the case that a particular sports leader/athlete participation fell short of the criteria to be assumed of the coaching process, there is no suggestion that the practice should not be encouraged. However, this model will not apply to that relationship and neither should nor could be used to analyse, explain or predict behaviour.

4.26 The termination of a coaching process may be through mutual agreement or the withdrawal of either party. In certain cases there may be an additional alternative where the process is halted by the withdrawal of resources or opportunity by a third party, for example in professional sport. The withdrawal of the athlete from the process may be for a variety of reasons: the achievement of goals; the failure to achieve goals; absence of satisfaction during the process itself; a change in major life goals; or a change in material circumstances, for example marriage, moving house, change in occupation. Whilst the termination process could be a fairly abrupt affair, many empirical studies have shown that this is a very stressful situation for the athlete who has had an intensive commitment over a long period of time.

4.27 The withdrawal of the coach (for exactly similar reasons to those of the athlete) may not necessarily result in the athlete discontinuing involvement. The coach may retain an advisory or other role. In many cases the athlete will repeat the initiation process and embark on another process. In some cases, the athlete may decide to coach him/herself.

4.28 Where the initiation process has been successful, the coach (and athlete) will move to the more detailed goal setting and planning stage.

PLANNING

4.29 The intensity and specificity of preparation undertaken during the initiation period is unlikely to have a significant effect on the determination of the athletes' performance, even in the short-term. There will be a degree of uncertainty in both relationships and programme at this early stage. Although the process can be said to have

begun, the template against which practice can be assessed will not yet be available. The introductory cycle may, therefore, be considered a pre-preparation cycle which lacks specificity and is only loosely dictated to by initial goal expectations. If sufficient information was available to the coach, the planning exercise could be undertaken before direct intervention units begin. This is unlikely to be the case and the introductory period will be providing the coach with some of the data necessary for detailed planning and scheduling.

It is important to note that, whether a direct intervention programme has begun or not, the coaching process has begun at the point of initial contact. The period of time elapsing before the intervention programme is more likely to be determined by the competition and seasonal cycle.

4.30 Planning is part of the introductory cycle and remains present throughout the remainder of the coaching process. Clearly, however, different levels of planning will be more appropriate at some stages in the process than at others. The most important feature of the early cycle is the determination of athlete goals and the process goals and objectives which follow from these. This is an example of the way in which the initial planning stage provides the basic structures of the process. Figure 5 identifies the links between the initial planning stage and the conceptualisation of the model.

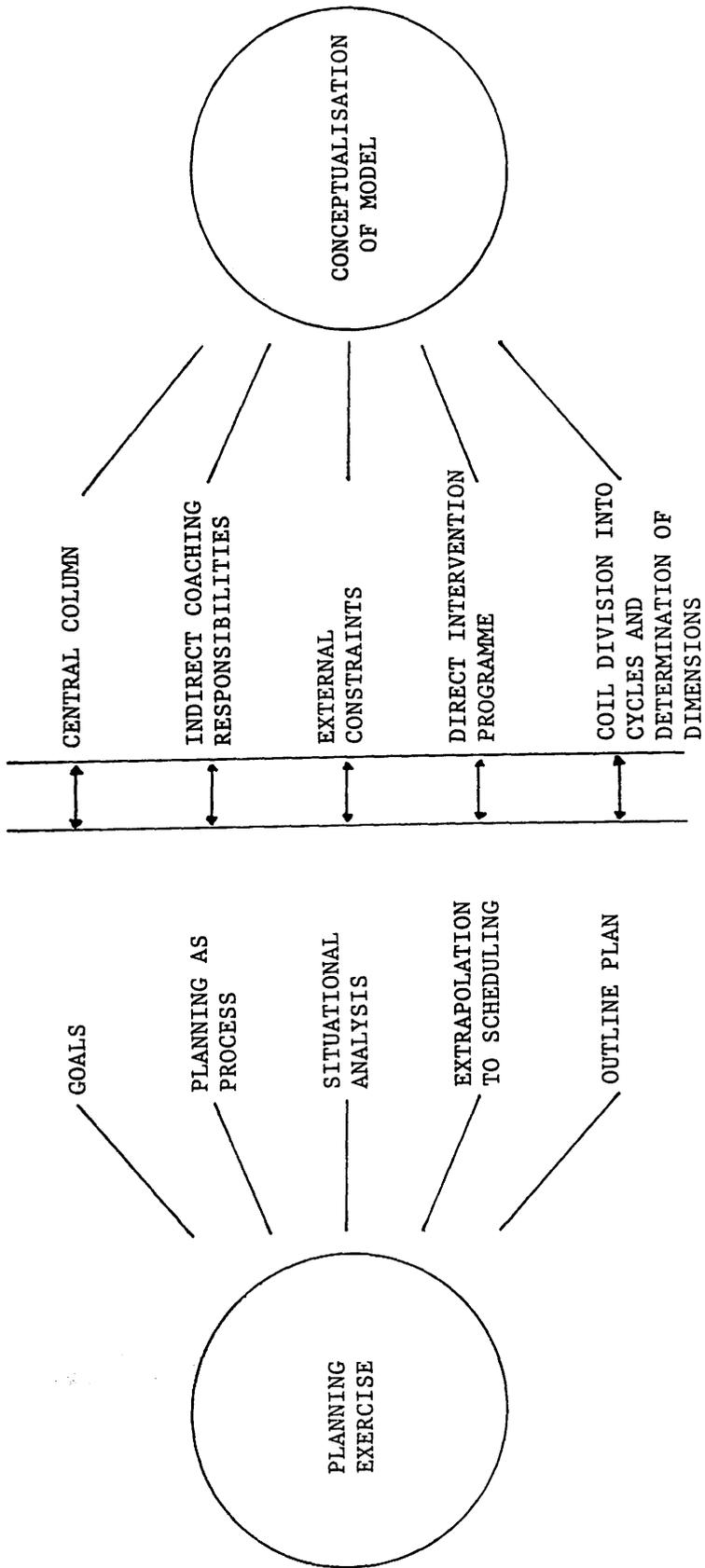
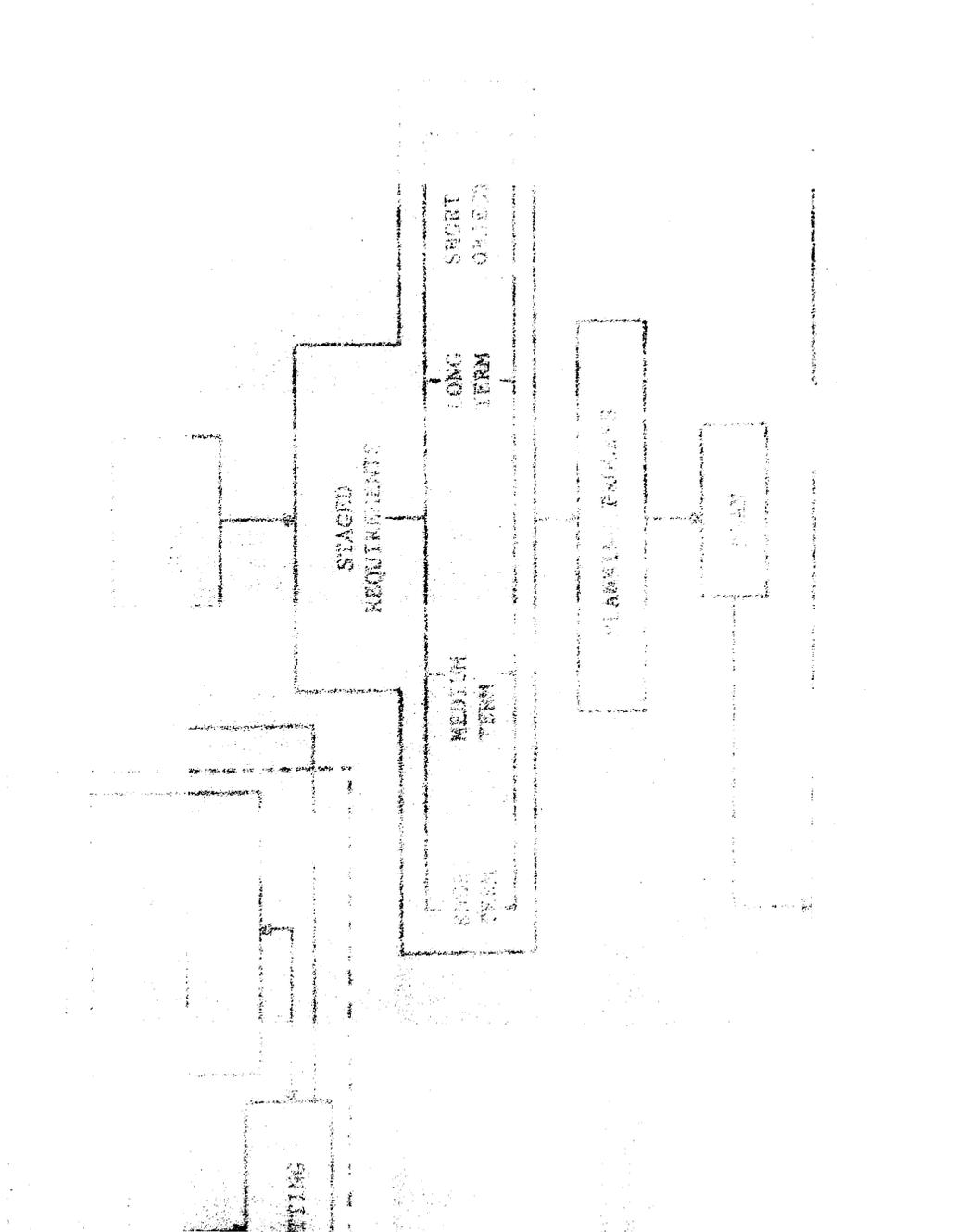
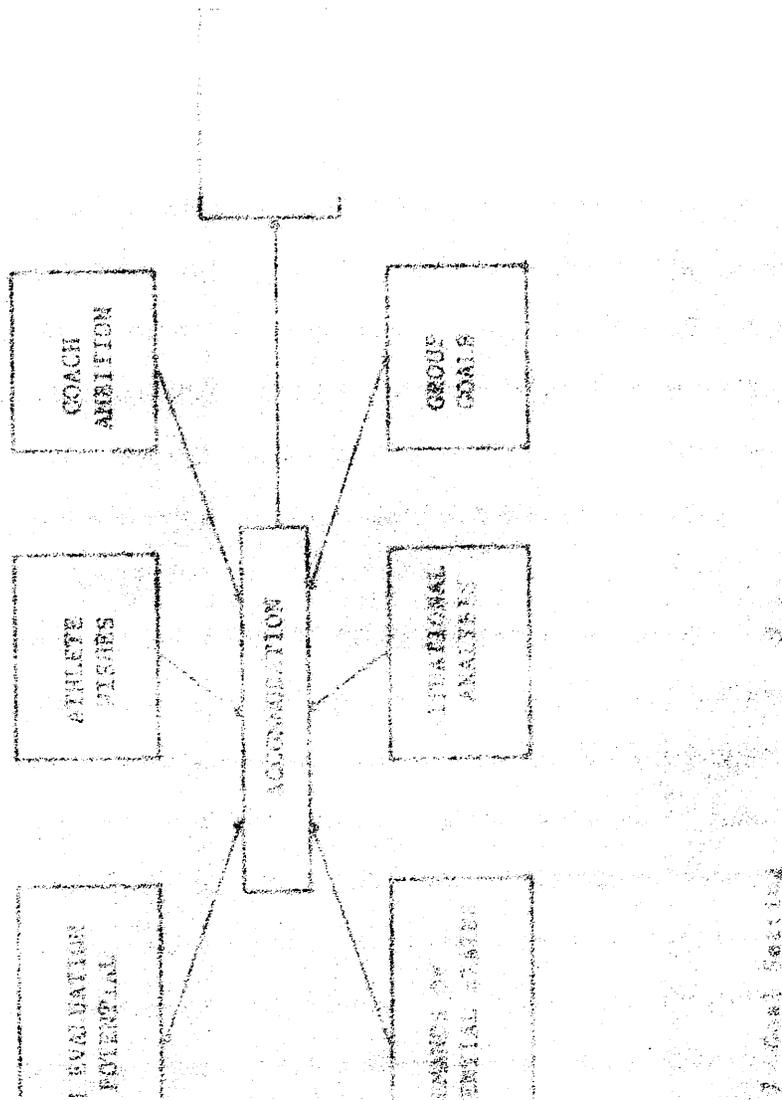


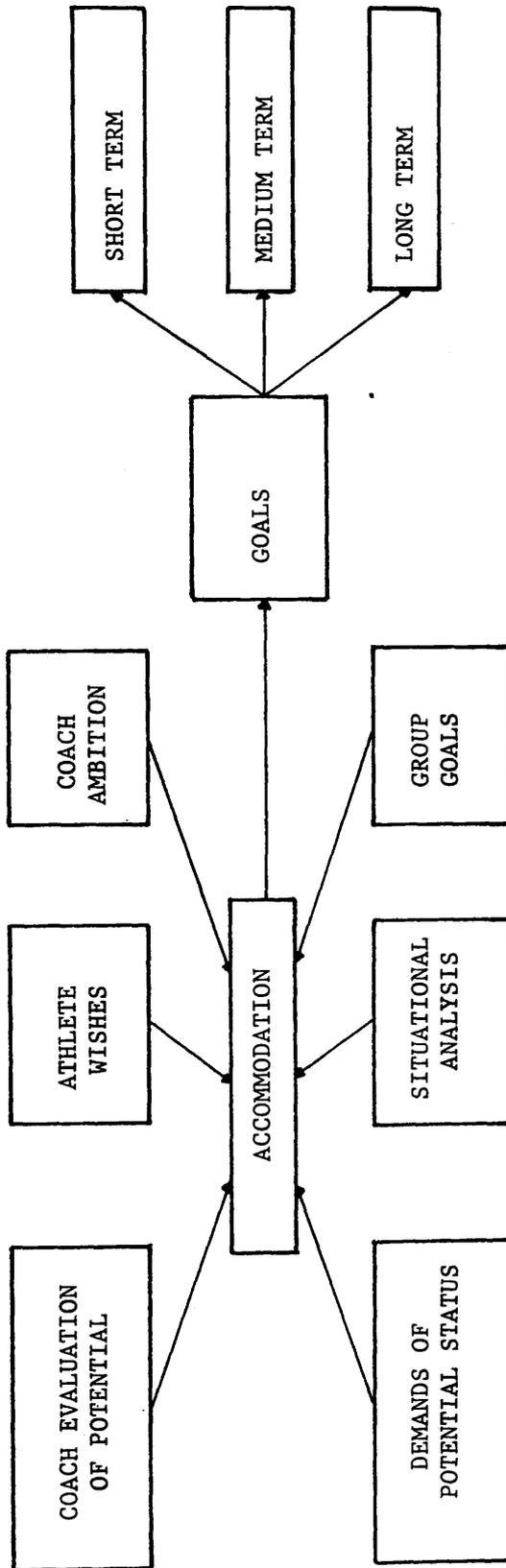
Figure 5 Basic Structures of the Process and the Initial Planning Stage

4.31 The remainder of this section goes on to describe in greater detail how the planning process takes place. The overall picture is summarised in Figure 6.



4.32 Goal setting is the exercise in which the athletes' desires and expectations are reconciled with the demands of those expectations, and with the coach's evaluation of what might be achieved in practice. The result is a mutual agreement on general expectations and more specific identification of these in terms of personal goals and competition targets. Figure 7 portrays those inputs which the goal setting process must assimilate and accommodate.





which helps in expectations about factors for development status. The process involves a combination of short-term and long-term goals to maintain a consistent performance level over time.

The coach should also consider the athlete's wishes and the demands of the potential status when setting goals.

Figure 7 Goal Setting

4.33 The coach and athlete are involved in examining in some depth the athlete's ambitions. The athlete is encouraged to explore life goals, education and occupational expectations and social responsibilities in addition to his/her particular sport and the perceptions which he/she has about future prospects. The coach will explore expectations about training levels, previous experience and motivation factors, for example competence, immediate satisfaction, financial reward, status. This exercise is one which required communication skills and an empathy for the athlete in addition to the knowledge and experience which the coach brings to the next stage. An accommodation is sought between the expressed desires of the athlete, the coach's evaluation of potential performance insofar as this is able to be made, the demands of the potential involvement foreseen by the athlete, the coach's motivations for involvement, and a situational analysis of what resources are available. A compromise is reached which is within the limits considered acceptable by the athlete and which is considered possible by the coach.

4.34 Inevitably, goal setting is not a mathematical exercise and a considerable amount of professional judgement is required. Evaluations based on insufficient data and by inexperienced coaches may suggest unrealistic expectations which cannot easily be achieved. Upper limits to achievement are rarely imposed but the conditions necessary for their attainment are specified. Goals may be expressed in terms of personal well-being and satisfaction but it will be necessary to translate this into sporting performance and participation dimensions. Given that this is an ideal-type model, a successful outcome to the exercise is assumed. However, modification will be required as medium term goals become short term goals and the progress towards the initial set of goals is

evaluated. Periodic evaluation will be built in to the process in the case of young and inexperienced athletes.

4.35 The outcome of the exercise will be the identification of short, medium and long term goals. The short-term (1 year) goals will be specified in process (commitment to complete a certain scale of participation), absolute performance (expectations on performance components and performance measures) and relative performance (outcome of involvement in the competitive programme) terms. Medium (2-5 years) and long-term goals will be much less detailed.

4.36 The exercise to this stage will have involved the athlete. However, there is one further element in the process for which the coach will be responsible. The short-term goals must be translated into objectives, that is, measurable process or behavioural objectives or targets. This will involve the expansion of the goals into very detailed preparation and competition programmes, and performance component demands. Fulfilling these demands should lead to the successful attainment of the process goals. This exercise is not a simple matter of objective reasoning. Sports specific coaching ideologies will influence coaches and when compounded by training theory principles which are open to interpretation, the result is that no two processes are exactly similar.

4.37 The situational analysis which forms part of the goal setting exercise is a combination of details about the athlete and the application of these indices to the lived experience of the coach in order to produce an evaluation of potential capacity and constraints. The coach will examine the athlete's previous performances - achieved standards, range and durability of competitive performance, technical ability, tactical ability, physical

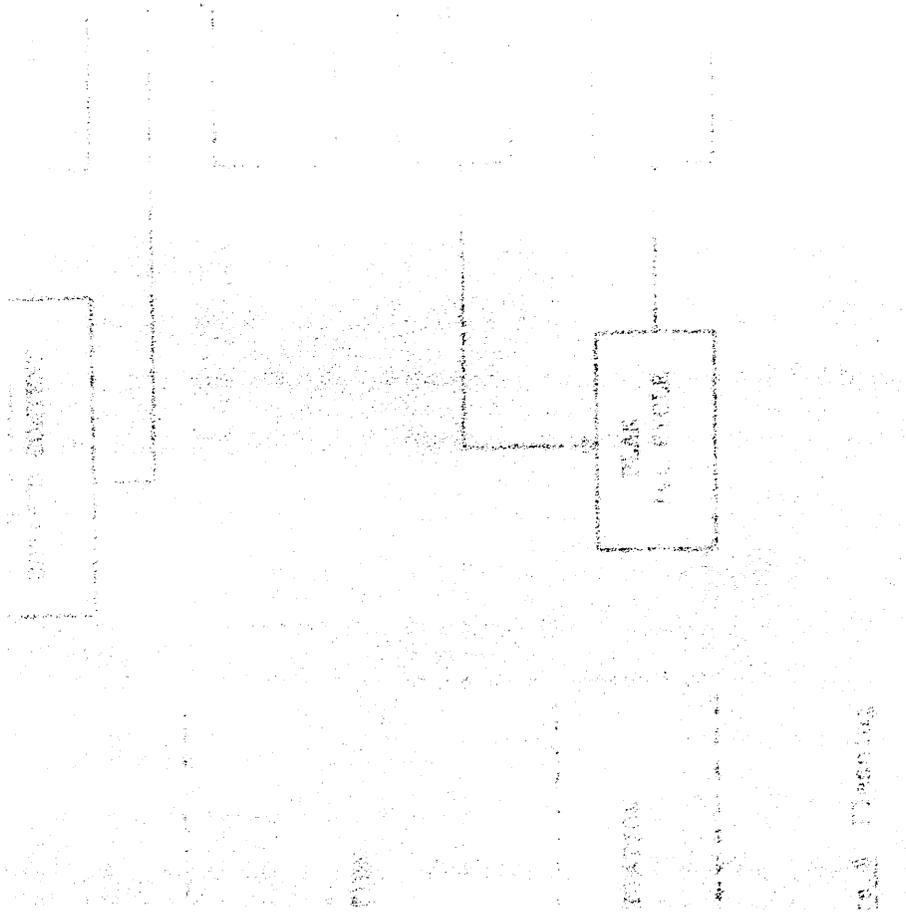
fitness parameters, previous psychological disposition in training and competition, and medical/injury record. The coach will also inquire about the athlete's maturity, intelligence and anthropometric measures. From an analysis of the athlete's life style, the coach will assess the positive and negative constraints of schooling, occupation, parental influence, financial circumstances and social circumstances.

4.38 The coach will be able to predict the improvement in capacity to be expected from the athlete. This may be done by experienced intuition, performance scores or component profile. During the 'accommodation to goals' exercise, the coach will take this a stage further. The resources necessary for the achievement of the athlete's desired status will be analysed. This will be done in terms of commitment to and availability of training time, coaches' availability, competition structure and standard, support services, facilities and financial resources. From this analysis, the coach can decide if the external constraints will facilitate or restrict the athlete's development.

4.39 The initiation procedure must also be set in a coaching market. Coaches may be scarce resources and athletes may need to compete using their potential capacity as the bargaining counter. The coach with the potentially best performer will have access to scarce resources.

4.40 If the coaching process was applied to a team rather than an individual athlete, the situational analysis, goal setting and planning exercises would be more complex but essentially similar. Team goals have to be reconciled with individual goals and vice-versa.

4.41 Planning results in systematic achievement of objectives. Although it might be argued that all forms of non-direct intervention constitute planning, there is a specific process which results in the translation of a set of widespread objectives into a detailed action plan for an individual preparation unit. Although all plans will be individualised, the process is common to all coaching processes. Figure 8 provides a summary of the initial planning process. Following a detailed explanation of this procedure, there is an explication of the subsequent planning exercise.



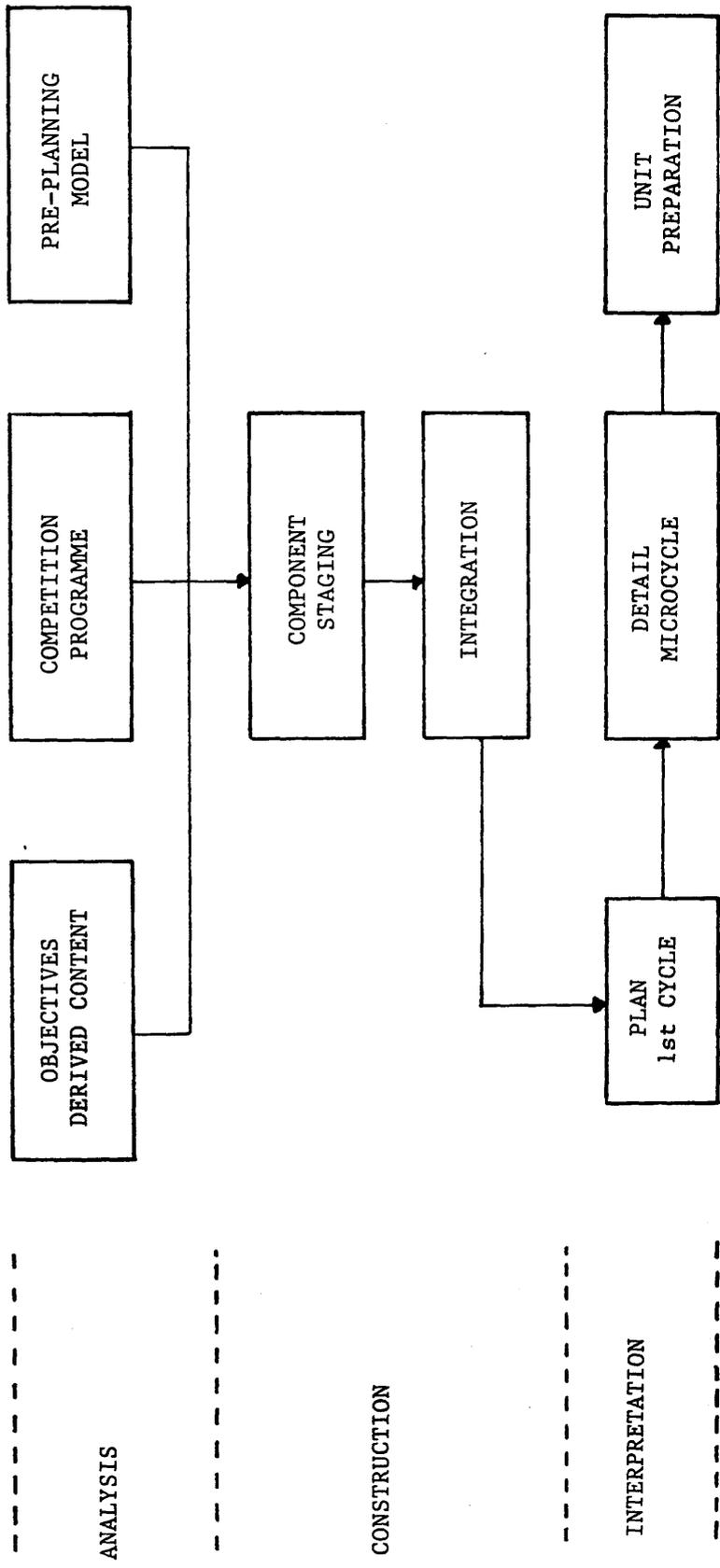


Figure 8 Planning

4.42 The links between goal setting and planning are the objectives which particularise the short-term goals. The initial stage in planning is to examine the objectives and decide upon the action required to bring about the achievement of these objectives. This action will be expressed in performance component terms and in process participation terms. Specifically it will concentrate upon the technical, physical, psychological, medical and tactical requirements necessary to achieve the objectives of the first year. Naturally enough, the medium and long-term goals will form part of this assessment. This exercise may be considered as the determination of the content of the plan.

4.43 At the same time, the coach will identify a suitable competition programme. It may be, in team sports, for example, that much of the programme is pre-determined. Nevertheless, the coach will examine the implications of the short-term goals and translate these into a competition programme of suitable standard and extent. Such a programme will identify preparation or training competitions where appropriate, alternative competitions as required, and the principal targets for the season/year.

4.44 The competition programme and the content are taken together with a pre-planning model. This model is a statement of the extent of the preparation programme and makes a sub-division of the period of the plan into major cycles. The model will specify the number of days available for the direct intervention programme, the number to be used and the total number of hours this represents per major cycle. The cycles are largely determined by the competition structure but will contain a general and specific preparation period, a competitive period

which may be further subdivided, and a period of transition between years/seasons.

4.45 The findings from these three exercises are now brought together and the construction of the plan begins. The cycles, competitions and number of hours training are brought together, usually in a visual/diagrammatic form. Each of the components is then staged within this timescale. That is to say, the coach brings to bear his/her knowledge to make judgements about the most appropriate ordering of the content and its relative weighting within each of the sub-divisions of the plan. There are training theory or periodisation principles to guide these decisions, for example an emphasis on technical achievement before tactical enhancement.

4.46 The content identified thus far is integrated within each sub-cycle. The implication of emphasis on one upon the other are considered and relative weightings established. In some components this may be very detailed. For example in physical conditioning, major forms of training will be identified - extensive interval work, weight training, long duration runs, flexibility exercises. For other components, for example tactical development or mental preparation, it may only be possible to identify the target behaviour and the broad distribution of exercise type and duration of effort.

4.47 This then is the plan. It shows cycle sub-divisions, competitions, translated objectives, relative weightings of components and the number of training units per cycle. This plan is now available for interpretation and translation into smaller units. The first cycle (probably 1-3 months) is abstracted from the plan and given more detail. Loading

principles are established for each of the training components or their position within the cycle confirmed. Loading factors are intensity, duration, volume and complexity. Each performance component, whether a training drill, weight lifting exercise, or game is characterised in this fashion. For example, in the general preparation cycle, technique repetition may change from 100% in duration and volume to 120%, with an increase in complexity. A period of approximately 4-6 weeks is, therefore, determined in some detail. The next stage is to specify a micro-cycle (usually 1 week) in precise detail. Loadings are identified as specific figures rather than percentages and drills or exercises identified. Each training unit is now available to the coach for implementation and transmission to the athlete or team.

4.48 The ideal model of the coaching process assumes that this exercise is carried out for each coaching process. Although the procedure is similar for all coaches and is approached in a systematic and rational fashion, the determination of content, exercises, drills, loadings etc., is not an exact science nor a completely objective one. The matter will be discussed further under the application of the model in practice, and it is necessary, at this stage, simply to note the different ways in which coaches devise content. Not all coaches will work from first principles. Many will repeat their established practices and some may abstract from published or acquired sources in recipe fashion.

4.49 Following this initial planning stage, the plan itself becomes the practical expression of process goals against which the operationalisation of the process is measured. The planning process becomes one of the indirect coaching responsibilities which are conceptualised as maintaining a continuous influence over the direct intervention programme. This

section explains how and when the planning process is triggered off, once the coaching process begins to unfold through time.

4.50 There are two principal issues, although they are obviously related. Firstly, the nature of the feedback process and, secondly, the thresholds at which the plan template will be altered, with consequent implications for goal achievement.

4.51 Progress will be monitored after each micro-cycle or week. This may involve performance measures or even, in a regular league programme, a performance result. Most often, the monitoring will involve assessing whether training loadings have been achieved and assessing the quality of the athlete response. If progress is satisfactory, the coach will implement the next micro-cycle already detailed in the meso-cycle (4-6 weeks) plan. If progress is thought to be unsatisfactory, the first response is to make an amendment to subsequent micro-cycles but to remain within the meso-cycle plan. In the normal course of events, the feedback from the meso-cycle is evaluated and the planning process continues with the extrapolation of the next sub-cycle from the plan. It is important to note that training targets will have acceptable limits in either direction. When targets have not been reached it will not always be possible to accommodate the shortfall. Depending on the period of the season, the cycle may need to move on to a different training emphasis in order for the athlete to be sufficiently prepared by the appropriate competition. If the deviation from the expected response is significant, it may result in an amended plan. The result may be a reduced expectation in final goal achievement or in many cases an increase in the unpredictability of goal achievement but not necessarily a limitation to that objective.

4.52 Normal monitoring procedures ensure that exercise loading takes account of progress made in the previous period. However, the progress to be anticipated at the end (at least in conceptual terms if not in practice) of the previous meso-cycle may be sufficiently disrupted to require a more major alteration to the plan for the major sub-division of the year and, as a consequence, of the yearly plan itself. There are four main reasons for this to occur:

- 1 There is insufficient adaptation by the athlete and where monitored via the performance potential constant, the deviation is outwith acceptable or expected limits.
- 2 The outcome of number (1) above is brought about by the programme not being fulfilled rather than non-adaptation by the human organism. This may be a result of reduced capacity caused by injury or ill health.
- 3 A change in external constraints comes to alter the situational analysis on which the plan was based. Examples of this would be school exams, facility availability, changes to the competition programme.
- 4 A particularly significant performance result may influence future expectations. For example, a qualifying competition which is lost or a qualifying standard not achieved.

4.53 The periodic exercise of planning for a manageable unit of 4-6 weeks may, therefore, be supplanted by a process which makes more

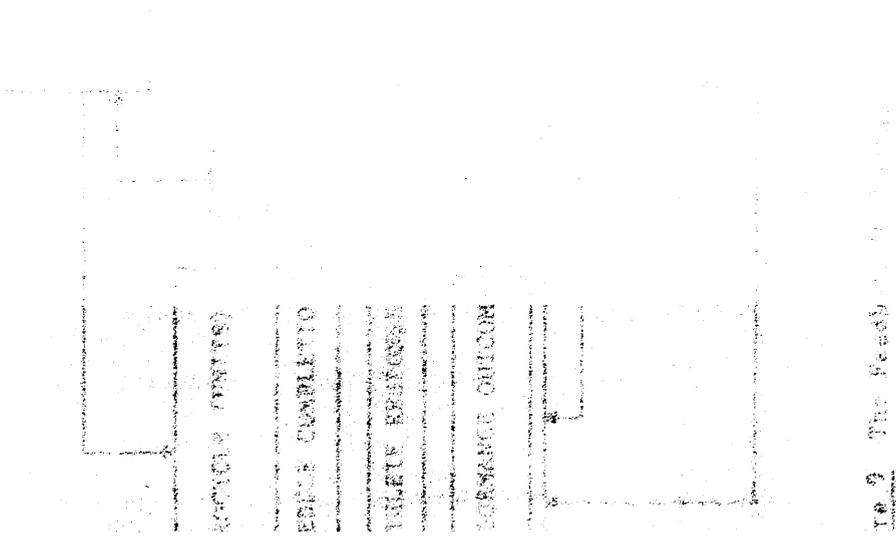
fundamental changes. The essential difference is that the more fundamental the recourse to changes in the plan itself, the more widespread will be the effects on the objectives and goals to be achieved. However, the process described here is that which is applicable to the ideal model - a series of checks and balances in which feedback mechanisms ensure a continuous process of assessment against a higher level of objectives until significant deviation threatens the achievement of these objectives. It is likely that in practice, however, the coaches' responses will be more sensitive to unnecessary change than might be suggested above. The result of too much change will be a reduction in practicability, a loss of overall perspective for athlete and coach and a process which is neither psychologically satisfying nor efficient. On the other hand, the variables involved in the exercise are not dealt with in an exact way. Performance components may be expressed within broad limits and the non-linear response to preparation involves an element of judgement in evaluating progress.

DIRECT INTERVENTION

4.54 Thus far the model has been described in terms of the initial processes and their periodic alterations. However, as the process unfolds, actual practice is recognised through the units of the direct intervention programme. These are sustained and facilitated by the indirect responsibilities of the coach who will carry out these duties at suitable times. These occasions will have a relationship to intervention units but will not be contemporaneous. An important part of the process, therefore, is the way in which the coach operates the day-to-day coaching process via the direct intervention programme.

- 4.55 The training and competition units constituting the intervention programme have been conceptualised as forming a systematic, progressive programme spiralling around the goals of the process and the plans which express and translate these goals. The central core element of the model allows the coach to engage in a constant monitoring process. Before examining the intervention process, it will be necessary to explore the feedback mechanisms through which the monitoring takes place.
- 4.56 Feedback is the transmission of information concerning the outcome of behaviour and action in one part of a system for the purpose of assessment and evaluation of the implications for subsequent parts of a system. Feedback may take many forms. In particular, it may be intuitive and subjective, based on the feelings and random observations of the evaluator, or objective and based on systematic and objective measurement. Clearly a continuum exists which allows a balance of the two extremes to be in operation. More importantly, feedback may be of the straightforward reporting variety, confirming that a unit was completed, for example. Alternatively, an outcome will be evaluated against a predetermined or external expectation and an evaluation of successful accomplishment made.
- 4.57 In the coaching process there will not be a detailed feedback operation for every training or competition unit. There will, however, be a constant sensitivity by the coach to the athlete's health, attitude etc. Feedback may be thought of as a constant process but one of varying intensities. Additionally, this is superimposed upon the need for practicability, a stable process and an accumulative period required for human adaptation to a stressor.

4.58 Feedback will be at three principal levels. Firstly, an internal unit feedback which simply monitors the completion of units within the micro-cycle and relays information about minor adjustments to the next unit. The completion of micro-cycles within the meso-cycle will be dealt with in the same way. Secondly, where the individual unit contains an objective test, or medical screening or competition performance, the outcome will be 'bounded off' the performance potential constant. Lastly, feedback of a more detailed sort will be required where new extrapolations from the plan are necessary to devise a new cycle or sub-cycle. In all cases a trigger mechanism is in operation. If there is a significant and irretrievable (in the shorter term) deviation from the expectations, the feedback loop continues to a higher (or in conceptual terms, more central) plane and the implications considered and fed into the system. This general process is illustrated in Figure 9. Also illustrated is the specificity of feedback.



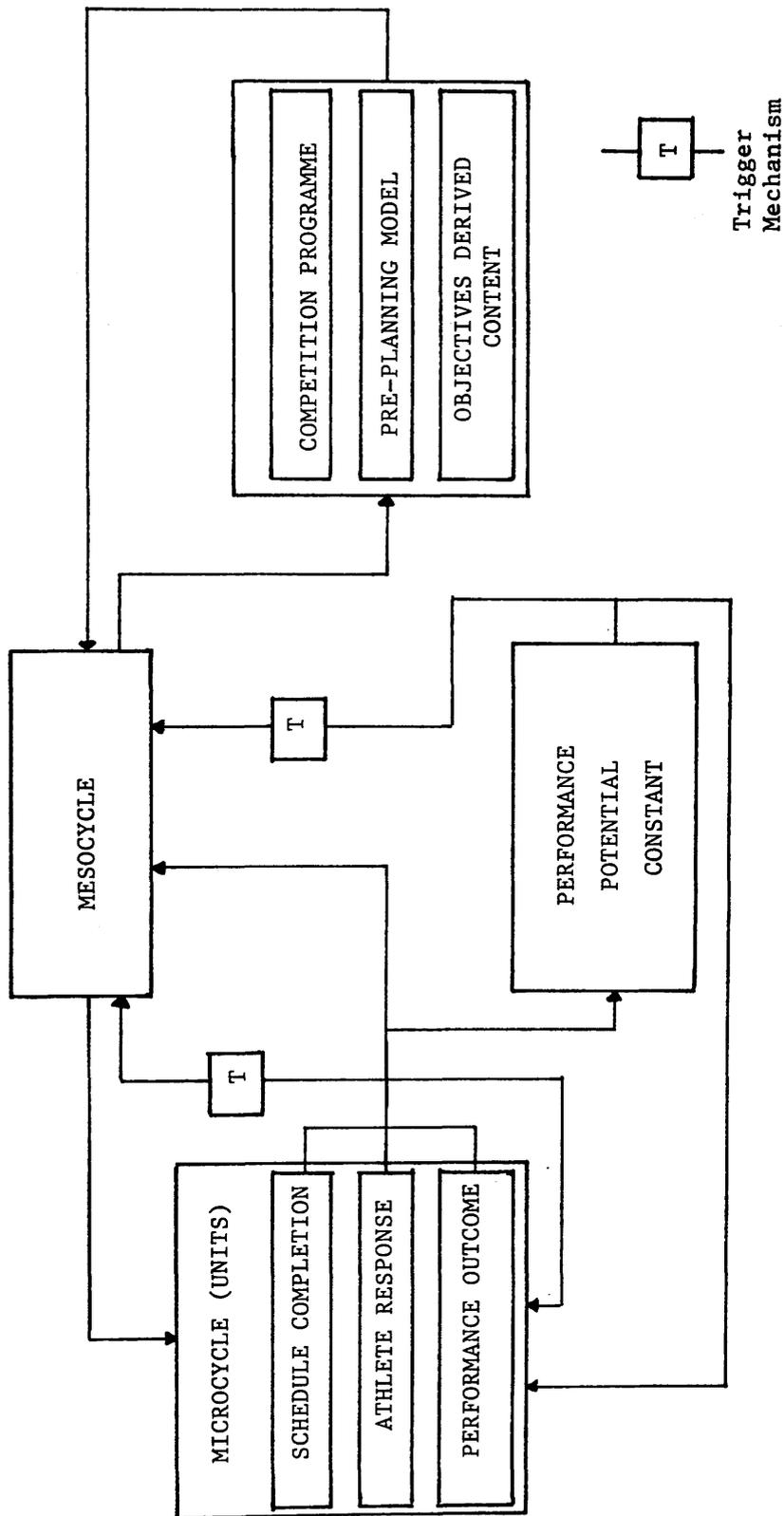


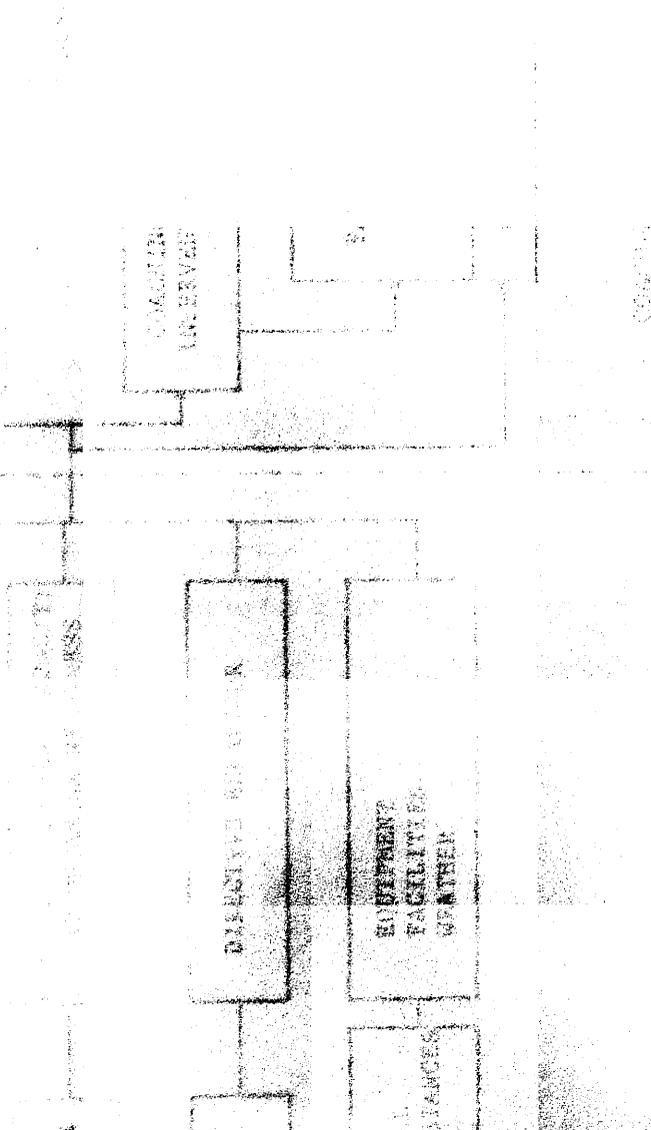
Figure 9 The Feedback Mechanism

4.59 The description of the process thus far has concentrated on the relationships between elements of the coaching process, and on the way in which a continual interaction of these elements brings about a stable environment, albeit as a result of a dynamic process, in which the coach and athlete can operate. The translation and implementation of this constant process is expressed in practice in the direct intervention programme. Such a programme is important for three reasons. Firstly it characterises the day-to-day contact between coach and athlete. Secondly, although the process can be evaluated in theoretical terms, the degree to which its effectiveness can be assessed is dependent upon the outcome of its translation into practice. Thirdly, the direct intervention programme is the time when athlete adaptation actually occurs (in the conceptual sense if not neurologically or physiologically since adaptation will take place during recovery between units).

4.60 There are a multiplicity of forms of direct intervention. Clearly the coach and athlete could meet on a social basis, although the coach may find it difficult not to be observing in a general sort of way. However, purposeful engagement between the coach and athlete characterises direct intervention. The significant feature is the athlete's participation in the preparation for performance or the competitive performance itself. Any of a range of activities might be included - physical conditioning training, skills rehearsal, competition, mental training, medical treatment etc.

4.61 Referring to the initial conceptualisation of the model, the direct intervention programme is a continuous thread representing the practical engagement between coach and athlete. The programme is varied but continuity is provided by the influence of the indirect coaching responsibilities which filter the external environment and the

monitoring and stabilising effect of the central goals (planning) column. The indirect responsibilities of the coach will not be restricted to preparation units or competition units although clearly the two are not exclusive. Indirect responsibilities facilitate and support the direct programme. Previous sections of the paper have demonstrated how a continuous process is in operation. Figure 10 summarises the inputs into the intervention unit.



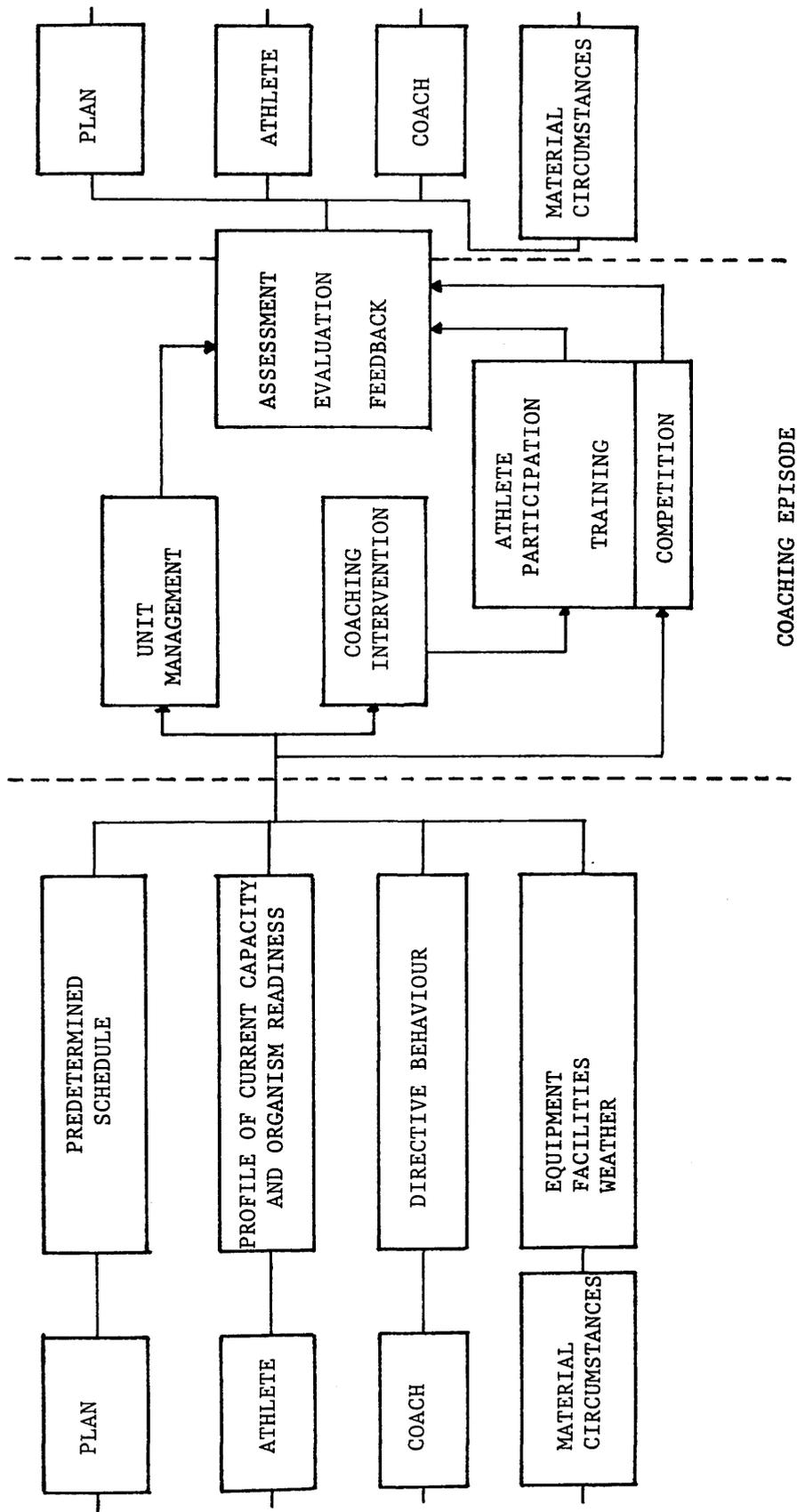
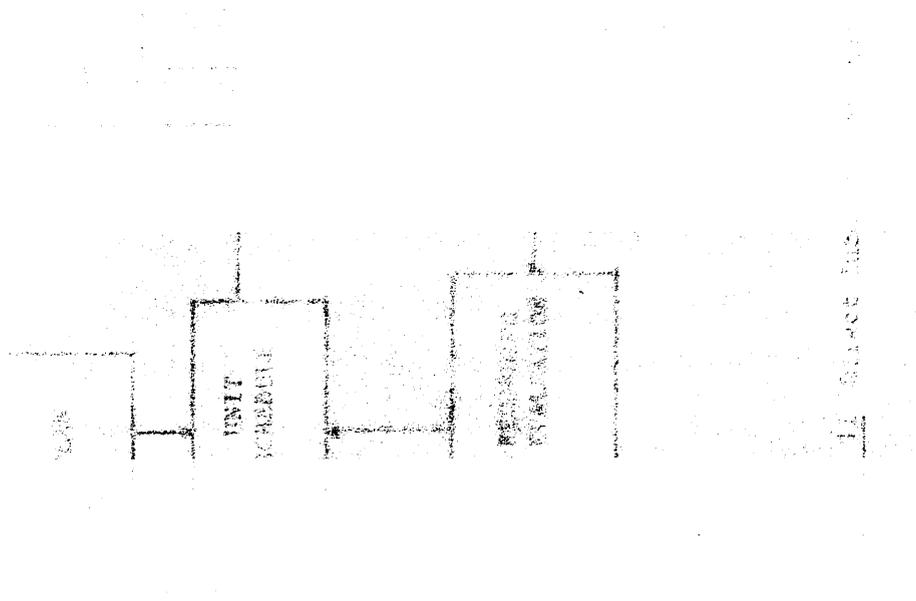


Figure 10 Intervention Unit

4.62 Illustrating the way in which these inputs are implemented in individual training units is not a simple task. Clearly this is the part of the coaching process which is most difficult to encapsulate in an ideal model since it is the most sports specific. In addition, the nature of the intervention itself ranges from observation during competition to, for example, physiological testing. Units are most appropriately divided into those dealing with preparation or competition. It is also important to make the distinction between the process as it is effected by the coach and as it is experienced by the athlete as performer.

4.63 The coaching process has largely been described in terms of the process which is taking place. The assumption has been made that the athlete is the organism being adapted and improved and the coach is the person who directs and manages the programme. Throughout this description, it has also been made clear that the athlete may be involved in making the decisions influencing the detailed nature of the process. Figure 11 particularises the process to the single preparation unit.



DIRECT INTERVENTION UNIT - PREPARATION UNIT

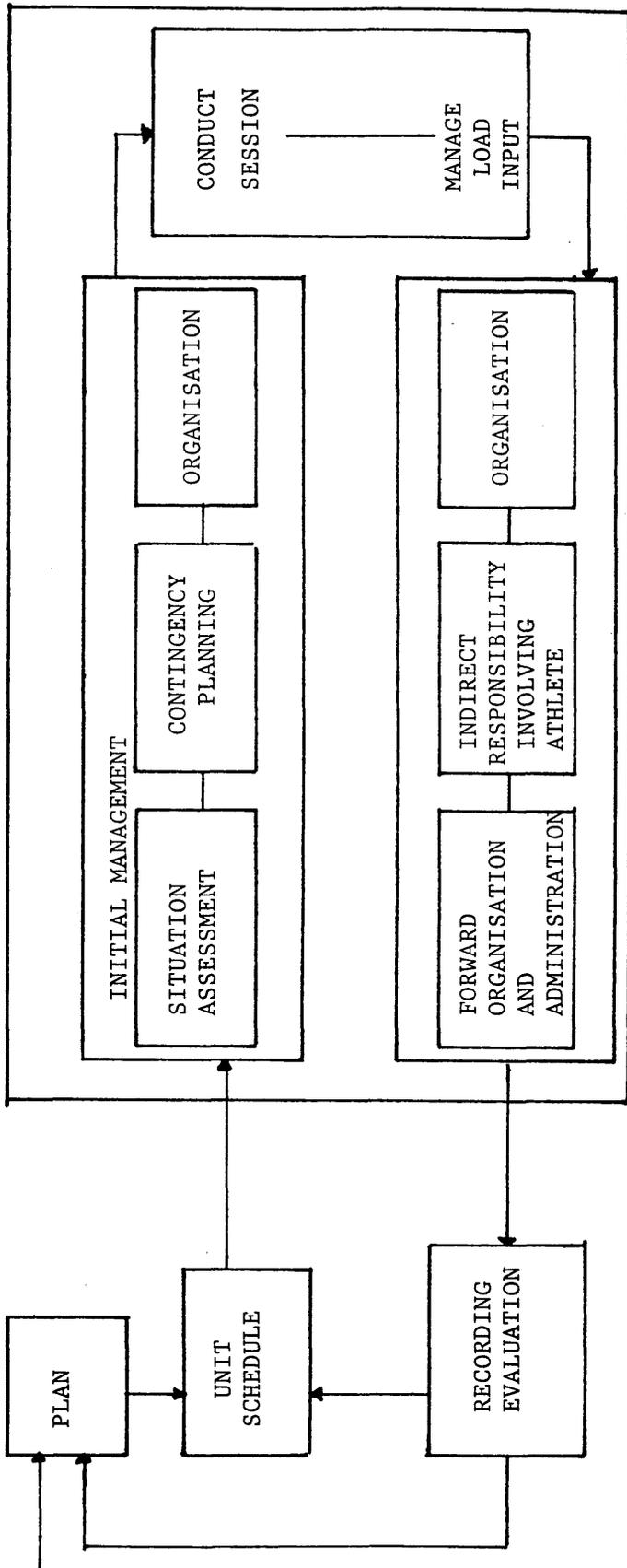


Figure 11 Direct Intervention Unit - Preparation Episode

4.64 On arriving at the location of the coaching episode, the coach is responsible for assessing the degree to which the predetermined unit plan is to be implemented. The unit will have been scheduled in terms of major forms of exercises, drills, loading targets, training intensities, athlete interaction etc. The coach must decide whether weather, time available, equipment function, or the state of readiness of the athlete - health, injury, general attitude, psychological disruption - may or may not require an alteration to the planned programme. These changes are notified to the athlete and organisational matters dealt with. These will concern the management of human and material resources to ensure the smooth running of the session. The coach may be concerned about the availability of equipment, safety, other users of a facility, security and communication of intent to athletes and assistants.

4.65 Thereafter, the coach conducts the session. The characteristic of this is the participation of the athlete in the practice of a component of performance, a combination of components, or the rehearsal of the performance itself. To attempt a comprehensive description of the sorts of exercises, drills, game situations etc., which might be involved, would be to prepare an endless list. Each activity could be further subdivided by an emphasis on physical, technical, tactical or psychological components. Clearly, however, the coach is not involved in the devising of original solutions to the requirements of the plan on every occasion. Each sport will have traditional working practices and terminology which is sport specific.

4.66 The most appropriate conceptualisation at this stage is that the coach is managing a training load. This term is normally applied in training theory to a load on the physiological system. However, it is here applied

to the demands required by the coach of any of the performance components. It will be expressed in terms of volume, duration, intensity and complexity of demand. The coach's behaviour will be that appropriate to the management of the load. In addition to communication - directing, describing, encouraging - the coach will have a practical involvement in the session. Once again the list of behaviours, and the combinations thereof, is endless. Typically, the coach will be observing, monitoring, operating equipment, feeding, rallying, illustrating new movement patterns, giving feedback or demonstrating.

4.67 At the completion of the athlete's participation in the performance element of the unit, the process continues with an evaluation of the unit and the preparation of the next episode. The coach will have organisational responsibilities related to those at the beginning of the session. In addition there will be his/her indirect responsibilities, some of which may be carried out at this time.

4.68 Most importantly, the coach will record and evaluate the unit. The degree to which this may be taken has already been discussed. If the unit outcomes do not trigger off any threshold mechanisms beyond the next unit, the factors carried forward will be assimilated into the situational assessment. This will involve the feedback principles already described. Figure 12 illustrates how the above process can be described as an interplay of load and training effect throughout the micro cycle.

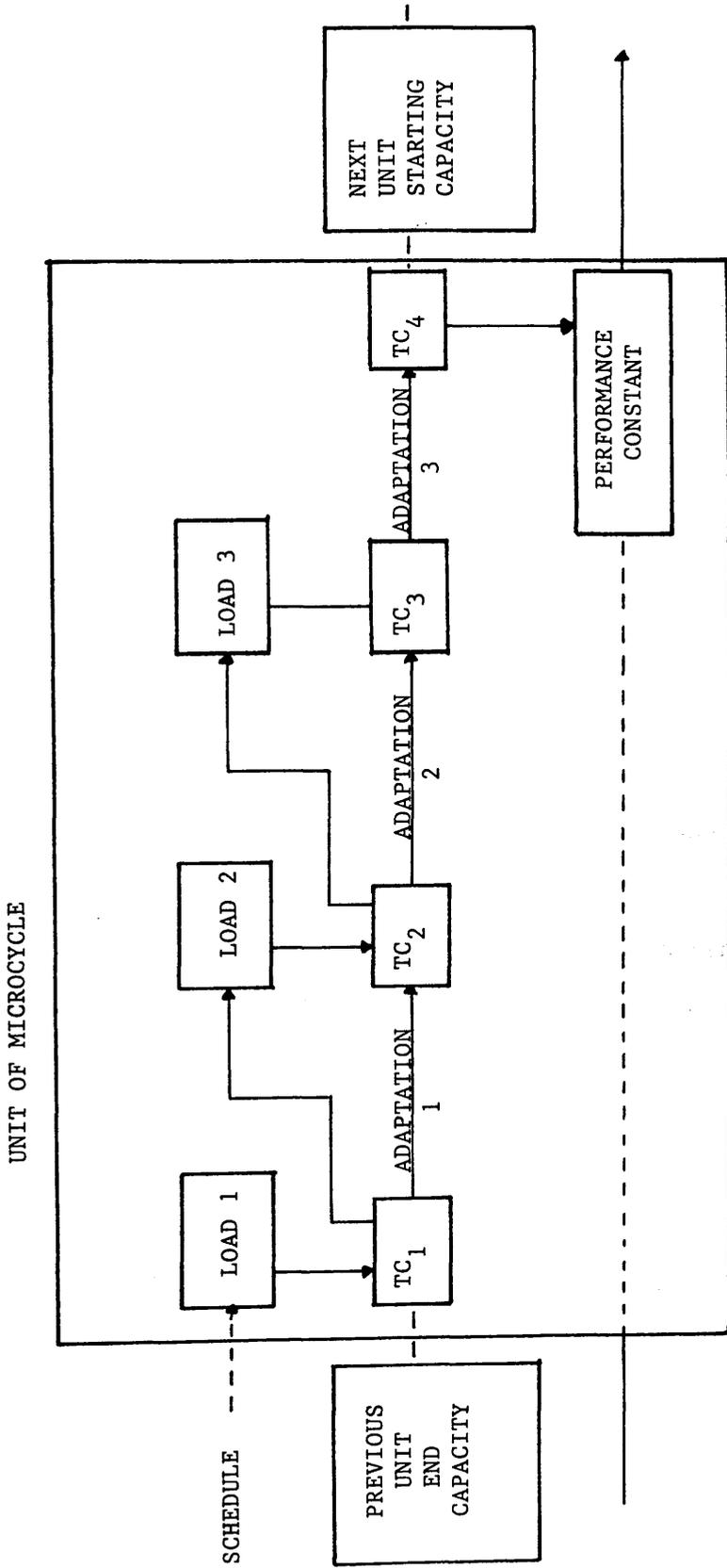


Figure 12 Load Input to Microcycle Unit

- 4.69 The application of the training load, of whatever sort, will have an effect on the athletes' capacity. The change which occurs places the athlete at the level to which the next load is applied. (The recovery period between units is part of this adaptation process). There are, of course, principles on which the timing of training inputs should be based. Monitoring procedures will assess the extent of the adaptation. As described previously, these will be evaluated periodically against the performance potential constant and appropriate action will follow.
- 4.70 The direct intervention programme also consists of competition units. It is an assumption of this ideal-type model of the coaching process that the coach will be present at all direct intervention units. The competition programme is a part of the systematic programme which is designed to lead to improved performance. There is a distinction to be drawn between competitions which are a part of the training programme and those which form part of the official and recognised programme of the National Governing Body. The differences will centre around the formality of the competition unit and the status of the outcome.
- 4.71 The summary of the unit process which follows has to be generalised in nature (Figure 13). Competition is very sports specific and both the habits and statutory responsibilities relevant to each sport will differ enormously. Nevertheless, the process is essentially similar and the context and contribution of the competition unit within the coaching process is common to all sports. Although the distinction will be expanded upon later, it is important to note at this stage the distinctions to be drawn between those sports in which the coach plays an officially recognised, and sanctioned role during the performance itself and those sports in which either the coach is prevented by the rules from becoming

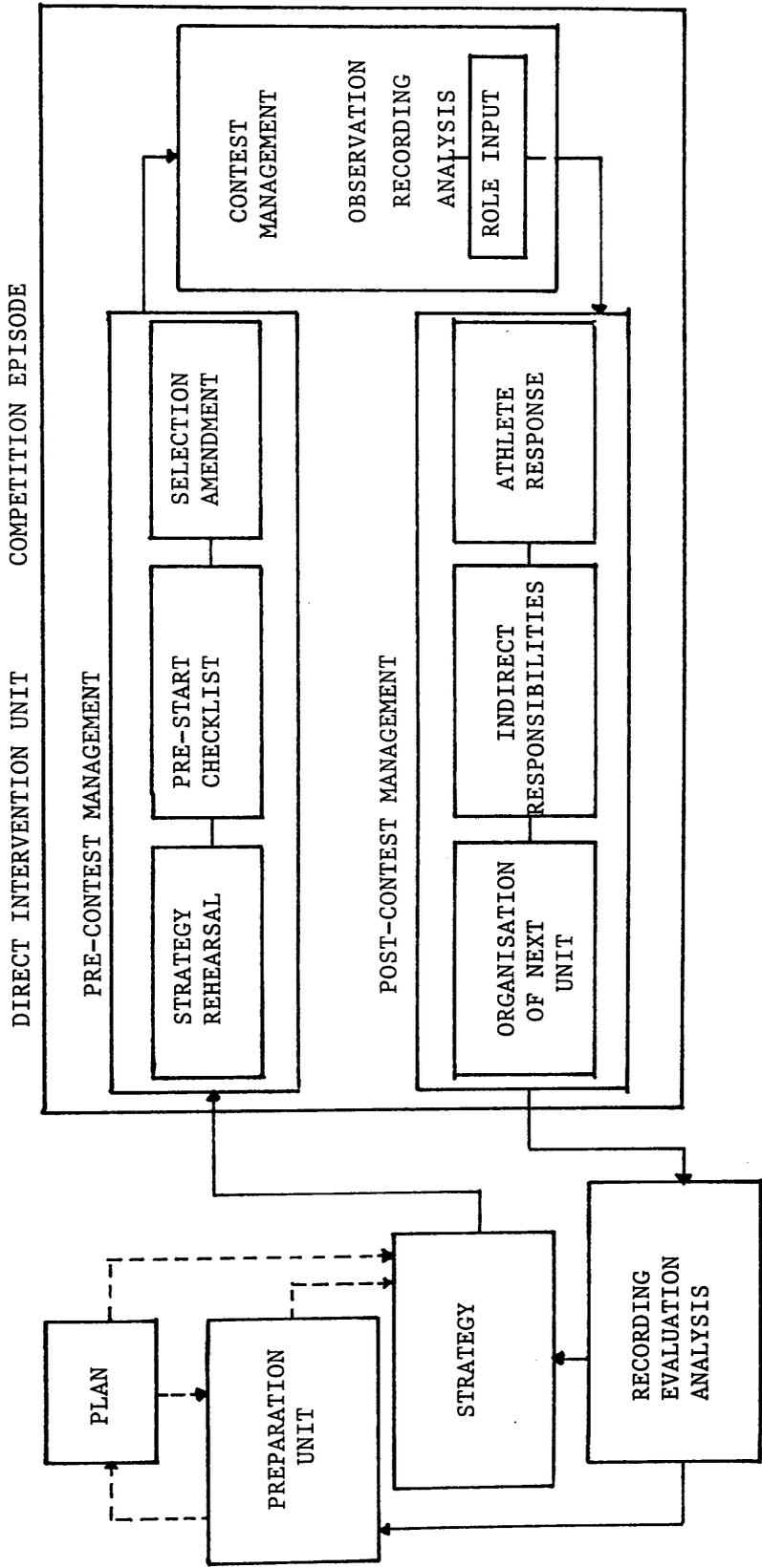


Figure 13 Direct Intervention Unit - Competition Episode

involved or geographical or environmental circumstances render the distinction irrelevant.

4.72 One of the coach's duties will be to establish, usually with the active involvement of the athlete, the strategy for the competition. This will be related to the state of readiness of the preparation programme, the nature of the competition and the quality of the opposition. The strategy will be expressed in terms of overall objectives, targets, tactics to be employed, deployment of resources and expectations. The strategy will have been discussed prior to the competition unit. At the time of the competition this will be rehearsed. Thereafter, the process is very sports specific. A pre-start checklist involves the coach in checking on opposition, environmental changes, equipment readiness, athlete anxiety state and with the athlete in an extended programme of psychological and physiological readiness and rehearsal. For team sports, last minute adjustments to team selection may have to be announced.

4.73 During the contest itself, a number of common behaviours by the coach will characterise the process. The coach will observe, record and analyse. There may also be communication with the athlete between heats, halves or sections of the competition during which to evaluate strategy and offer advice. In other sports, the coach will be directly involved in the contest, either by calling time outs or making substitutions, in a more formal manner.

4.74 After the competition, the coach becomes involved in the evaluation of the input and outcome, and in preparation for succeeding units. This will involve communicating with the athletes, analysing statistics, and a number of organisation matters relating to the indirect responsibilities

of the coach. The evaluation of the competition unit is then fed into the next series of preparation units and competition units. Clearly the outcome of a competition in terms of result or performance is more likely to trigger a feedback to major goals than any one training unit.

SUMMARY

4.75 This chapter describes a model of the coaching process. The ideal type model has been devised following the methodology advocated by Weber and has employed a logical, rational approach to identify, unite and interrelate the essential elements of this process in a constraint-free context. The model has been devised using this logico-deductive methodology. However, this procedure has been informed by the literature available and very significantly influenced by the extensive personal experience of the author. This has involved coaching athletes at international level and discussions with experienced, well qualified coaches on a Diploma course, over a period of twelve years.

4.76 The assumptions and the starter concepts on which the model is predicated have been identified. The absence of conceptual clarity resulting from a failure to identify assumptions was recognised to be a limitation in much of the literature relating to the coaching process. For this reason, the statement of assumptions assumes greater significance. Additionally, these underlying constructs provide an opportunity for the model to be challenged. The assumptions, having been derived from the application of the rational pursuits of objectives within defined boundaries and concerning purposeful, non-coercive human activity in a sports performance context, not only constitute a set of principles against which the model itself can be evaluated, but also represent a coherent statement

of the premises on which the model is based. These tenets are subject to critical review.

4.77 The sections devoted to the presentation of the model itself explored the difficulty of process description and noted the absence of comprehensive models of the coaching process in the literature. The model itself is conceptualised as a continuous cycle operating around a series of goals and feed-back mechanisms. The structure is described and the possible quantification of the process is presaged. The model is presented in a number of stages, moving through initiation, planning and implementation. Development and progression are illustrated through a continuous process of review, monitoring and revision. Regulation of the process is emphasised throughout the explication of the model. The direct intervention sub-processes of preparation and competition units reflect the episodic orientation of much of the literature. However, the overall coordination and continuity of the process is constantly emphasised.

4.78 **Claims for the Model**

The attention given to the devising of a model of the coaching process was a reaction to perceived shortcomings in the means available for analysing coaching behaviour. It is an important part of the presentation of the model to establish the claims being made for it. Three claims are made for the model:

- (a) The model is an innovative, rational representation of the coaching process. Based on the ideal-type approach, conceived within a constraint-free context, and identifying the assumptions on which

the model is based, there is a comprehensiveness about the model which is absent in previous attempts to portray the process.

- (b) The model provides a means for analysing (and thereby understanding better) coaches' behaviour. It may be used to highlight those aspects of coaching practice, which are particularly significant, and as such is a template against which to understand practice.
- (c) The model provides a basis for future research. Since the ideal-type methodology assumes a comparison with actual coaching practice, the data generated would make a substantial contribution in an aspect of sports research which is under-represented in the literature. In addition to generating data on coaching behaviour the model provides a basis for quantifying elements of the process, for investigating coaching effectiveness and for establishing empirical data on coach education.

4.79 It is appropriate to establish the relationship between the model and the performance of the athlete or team. Insofar as the model assumes no constraints and assumes that principles of learning and training have been implemented, it should be possible to claim that cumulative improvements in performance will follow. However, since the ideal-type model will not be found in practice, this would be a spurious claim. Similarly a claim that the ideal-type model would prove more effective in achieving objectives than a process not following these procedures and assumptions, it is a theoretical, almost tautological statement. It is an extension of claim (c) that the model makes a contribution to athlete performance. In providing a template against which coaching practice can

be better understood, the model helps to identify significant differences in practice. Research may subsequently establish the effect on performance of the distinctive modes of coach behaviour.

4.80 The following chapter will seek to identify those parts of the process where it is anticipated that practice will display behaviours which are dissonant with the ideal-type model. Thereafter, there will be an exploratory investigation of the extent to which the model in the context of its application in practice, provides a basis for the understanding of coaching behaviours. A panel of experienced coaches will be used to gauge whether the ideal-type model can be used profitably to describe, understand, analyse and predict their behaviour. The findings from this preliminary empirical study will allow the author to offer tentative conclusions on the assumptions underlying the model and on the claims made for the model.

PAGE FIVE

APPLICATION OF THE MODEL IN PRACTICE

CHAPTER FIVE

INTRODUCTION

The application of the model in practice

One of the main aims of this chapter is to explore the application of the model in practice. The model is presented as a tool which can be used to analyse and evaluate coaching processes and with it, a number of examples are given to illustrate how it would be found to have been used in practice. In this way, the model is shown to be a useful tool with which to analyse, understand and evaluate the coaching process. An awareness of the model and its application in practice implies a professional and ethical responsibility to coach in a way which is consistent with the model. The model is presented as a tool which can be used to analyse and evaluate coaching processes and with it, a number of examples are given to illustrate how it would be found to have been used in practice. In this way, the model is shown to be a useful tool with which to analyse, understand and evaluate the coaching process. An awareness of the model and its application in practice implies a professional and ethical responsibility to coach in a way which is consistent with the model.

An essential feature of the model is the way in which it provides a framework for the identification of those parts of the process which are most likely to be the focus of coaching intervention.

CHAPTER FIVE

THE APPLICATION OF THE MODEL IN PRACTICE

INTRODUCTION

- 5.1 The ideal type model is a methodological device with which to understand social processes. Insofar as it is constructed from a logical, rational basis and without constraints, it is not expected that the model itself would be found to have been translated directly into practice. Nevertheless, it is the deviation from the ideal conception which highlights those elements of a process which are particularly significant. In this way the ideal-type model of the coaching process is a conceptual tool with which to analyse, understand and evaluate the coaching process. An awareness of the optimal practice which the model implies, and a systematic and realistic translation of this into coaching behaviour in context, has the potential to be an important part of coach education and training.
- 5.2 An essential feature of the analysis of coaching practice is the identification of those parts of the process where practice is expected to display behaviours that are somewhat distant from the ideal-type model. In this way an assessment can be made of the impact which a "less good fit" will have on the efficiency and effectiveness of a particular coaching process. Although the ideal-type model is described without resource

limitations, constraints such as these can be predicted. This chapter goes on to identify those elements of the model where a departure from the ideal-type may be expected and highlights the reasons for such discrepancies. In addition, it should be recognised that the model is presented in a consensual, generic fashion. In practice, the process will be particularised and individualised. This is as a result of resource constraints, sports specific contexts and individual coaches' philosophies or approaches to the process. This final characteristic points to the distinctiveness of the coach's contribution to the process.

DEPARTURE FROM THE IDEAL MODEL

5.3 There may be a dissimilarity of two kinds between the ideal-type model and the practice of the coaching process. Firstly, the structure of the process may be inadequate or, secondly, the process is inappropriate. The latter occurs when a subsidiary process has broken down and the procedures available are incorrectly applied to the given situation. Clearly, in a situation where resources are poor, the outcome of the coaching process may not be one which is optimal in terms of the athlete's potential but one which has been correctly devised and applied in the prevailing circumstances.

5.4 There are a number of reasons for the gap between the ideal and the practical application of the process. The origins of the discrepancy may lie in a lack of awareness by the coach of the details of the ideal process that is, of the principles that could inform practice. Any coincidence between the ideal model and the coach's practice in these circumstances will result from the generality of the subject matter and the commonly held assumptions about coaching practice assimilated through

occupational socialisation. The origin of the discrepancy may also lie within the shortcomings of the coach. Although the coach may be aware of the ideal process, he/she may not have the knowledge and skills to translate this into practice. Lastly, the coach may simply not apply the knowledge and skills possessed in an effective or efficient manner.

5.5 The discrepancy between the ideal model and coaching practice may be categorised as a feature of implementation, translation or reception. Poor implementation may be the result of a number of structural elements of the process being inadequately addressed. For example, one or more of the assumptions on which the process is founded may not be fulfilled. Examples of this would be the effectiveness of communication between coach and athlete; the failure to apply the process over an extended period; lack of stability and continuity in the group with whom the coach is working. The absence of these features of the process, and others concerning resource availability, including that of the coach's time commitment results in there being a greater likelihood of the process failing to match expectations to outcomes. The absence of the variables associated with the assumptions about the process has a 'knock-on' effect on other features of the process. For example, failure to apply the process over an extended time period will render invalid the assumptions about improvement in component parts of performance or optimum learning conditions.

5.6 A major assumption in the process is that the coach is required for optimum implementation. Situations in which the coach is not available to fulfil the responsibilities described previously will reduce the efficacy of the process. An example of this is the situation where the coach is also a competitor, for example the player-coach in a team, or a self-coached

individual competitor. In this situation a number of elements of the process may be problematical, with the result being ineffective practice, reduced individual performance contribution or increased strain in relationships. The most obvious conflict arising from the double role is in the conducting of the direct intervention programme. This implies a reduced capacity for direction, organisation and, in particular, observation which if implemented will enormously reduce the performer capacity of the individual. It is likely that the need for assessment and evaluation which involves the individual coach's own performance contribution will compromise the coach's objectivity and relationship to other performers.

5.7 The coach's capacity for engaging in crisis management must also be compromised in situations where he/she is also a performer. However, the time required for indirect responsibilities must place an additional strain on the coach's capacity for fulfilling all responsibilities. This last problem may not be significant, however, in circumstances where the coach is employed on a full-time basis. It is worth noting that in practice, an organisation or team may accept a reduced process effectiveness as an acceptable price to pay for the contribution of the individual to the performance of the team. Such a situation is likely to arise when the coach is a very experienced performer.

5.8 Where the individual performer is self-coached, the double role may not be perceived as a problem in that evaluations are restricted to the individual. However, the practical problems of leadership, observation, recording, organisation and administration will remain. Once again, only in the very experienced performer (and in relatively 'simple' sports)

will the marginal advantages of flexibility, finance or personal autonomy compensate for the reduced effectiveness of the process.

5.9 The initial goal setting and planning exercises depend upon an assessment and evaluation of starter concept circumstances such as athlete capabilities, coach knowledge and skills and the competition programme. If this assessment is not made, is made incorrectly or the evaluations drawn from it are inappropriate, the planning exercise and the programmes, schedules etc., which follow will, perforce, be less than optimum.

5.10 Furthermore, the gap between the ideal process and that operating in practice may be explained by the failure to carry out one of the subprocesses or procedures assumed in the model. Break-down in the process may occur at any time as a consequence. It is unlikely, however, that the process would be terminated. Much more likely is an unsystematic process, one which is not sensitive to the needs of the athlete and does not fully accommodate all possible variables.

5.11 There are a number of stages in the process at which the ideal model is least likely to be applied. During the initiation process, goal setting may not be fully explored with the athlete and the resultant objectives are not explicit. The consequences of this will be seen in unsophisticated targeting, and a lack of coherence in the planning process. At the planning stage, a lack of attention to the collection and evaluation of background data will have the result of invalidating, to a greater or lesser extent, the planning exercise. The consequence is a programme of work which is not specific to the individual process. If a considerable part of the planning process is neglected, the outcome may be that the coach will

rely upon schedules which have been devised for others or have only very general application.

- 5.12 A most important feature of the whole process is the business of feedback. This involves a set of procedures which can be time consuming and burdensome - constant monitoring, recording and evaluating against expected outcomes. Without this, the programme of direct intervention and the schedules of preparation designed for the athlete will not be progressive nor systematic. A specific example of poor feedback procedures is the failure of the coach to mediate the athlete's progress via a performance potential constant. Without this constant monitoring device, the overall progress of the athlete and the coach's mechanism for detecting significant deviation from the expected will be less responsive to changes in status than could be the case.
- 5.13 The overall effect of the process elements being inadequately applied will be a less effective process. Given the need for individualised and very responsive programmes to ensure optimum development, any failure to implement significant stages in the process, or to account for these in subsequent stages will reduce the coach's capacity for predicting performance and will render invalid the training theory assumptions encapsulated in the preparation programme, and underpinning the planning principles.
- 5.14 In addition to the factors identified above, there is a possibility of poor coordination between the coach's direct and indirect coaching responsibilities and between each of those and the external environment. Direct intervention between coach and athlete will be less responsive to the potential performance capacity of the athlete if the coach's

information system fails to acknowledge changes in the environment or if the coach fails to recognise the contribution of indirect responsibilities to the overall process. Examples of this are the impact of individual sponsorship on competition programmes and, on a more day-to-day basis, the limitations imposed by a failure to adequately record the athlete's training session details.

5.15 A major failure of purpose will occur if the coach and athlete fail to recognise the nature of their engagement as a process. If the coach regards the relationship in too restricted a fashion either of time or complexity of variables, none of the advantages of concerted and coordinated effort can be assumed.

5.16 The gap between practice and the ideal-type model may also be as a result of poor translation of the plan into practice. In this instance the planning elements may be correctly applied in sequence but incorrectly applied in substance. If this is not monitored and rectified, the result will be a reduction in the efficiency of the process. Adequate translation is the responsibility of the coach. If his/her knowledge and skills are not properly applied, for example, in accounting for all variables in the planning process, or in devising a suitable mix of performance components within planning cycles, the resultant intervention programme will not reflect the benefits to be achieved from following the principles of planning.

5.17 Translation may also suffer as a consequence of the coach's inability to operationalise the intervention programme. Failure to observe learning principles or to communicate satisfactorily will create a barrier between the conceptualisation of the preparation unit and its execution. This

communication barrier is a potential threat to the process at many stages of the process, from the goalsetting exercise to crisis management in competition.

5.18 Departure from the ideal may also occur because the process is not being engaged in, in an appropriate fashion, by the athlete. The application of training principles, for example, to the human organism does not result in a totally predictable outcome. However, the process is aided immeasurably by the voluntaristic commitment of the athlete. Where this is missing, a further degree of unpredictability is added to the process. In more specific terms, the process assumes a degree of involvement by the athlete in the determination of the process and an acceptance of role relationships between coach and athlete. Failures of communication resulting from the athlete's unwillingness to be involved must inevitably detract from the implementation and translation of the process. Such a situation may exist within professional sport.

5.19 A more obvious cause of reception failure is injury in the athlete. If this is observed, diagnosed or reported, the ideal-type model can absorb the injury into the monitoring procedures and amend the programme appropriately. The ideal-type model is severely disadvantaged if any injury is not reported or diagnosed.

5.20 The implication of a gap between the ideal-type model and that which is put into practice have been noted throughout the preceding sections. Two issues arise. When does the process cease to fall within what might be defined as the coaching process, and secondly, what is the cumulative effect of the less than ideal process.

5.21 'Are people coaching?', is a conceptual problem rather than a practical one. No one would be prevented from engaging in sports leadership because the process fell below a threshold measure. Nonetheless, resource issues may be involved and there are implications for coach education and training. The minimum threshold may be reached if the assumptions on which model construction are based, are not found in practice. For example, an absence of a stable group, extended time period, competition programme or regular frequent preparation may define another form of sports leadership. It is a much more difficult task to assess the point at which the process is so unsophisticated as to prevent it being described as systematic and progressive. This is not a major issue and no form of quantitative measure should be sought.

5.22 In order to investigate the cumulative effect of a less than ideal process, it is necessary to briefly examine the terms effectiveness, appropriateness and success. The term success implies an evaluation of the performance outcome following from a coaching process. This form of evaluation is not one which should be ignored because it involves athlete goals, relative success and continued participation in a sport. However, success refers to factors often beyond the control of the process. Inasmuch as the ideal process would also be subject to the same qualifications, it is not relevant to the present discussion. Effectiveness refers to the achievement of intentions to the best degree possible. The more closely the process approaches its objectives (assuming they have been set appropriately), the more effective is that process. Appropriateness is a measure of relationship between the process in practice and that which would have resulted from a process which accounted for all variables impinging upon that process. In situations where the coaching process is inadequately implemented, the resulting procedures will be inappropriate. As a

consequence the process will not be effective in the terms described above. The process will not be appropriate since it will be specific to neither the circumstances nor the individual, and will not benefit from the principles on which it is based. Where the process is poorly translated or received, that is, operationalisation is inadequate, the process cannot be optimal and is, therefore, not as effective as it could be. In the short term, a gap or departure from the ideal can be remedied, particularly if the cause is a translatory problem. In the longer term, the loss of effectiveness will be very difficult to evaluate and problems of insubstantial implementation will have very serious consequences for this reduced outcome.

INDIVIDUALISING THE PROCESS

RESOURCES

5.23 The previous section discussed a departure from the ideal model as a result of inadequate procedures in application. In individualising or particularising the process, it is possible to have a departure in another sense. Even where the correct procedures have been followed and the process can be said to be appropriate, the resources available to the process may prove restrictive. The full operationalisation of the coaching process is not possible: the objectives have to be limited by the resources available.

5.24 Examples of resource limitations may be recognised in shortfalls in finance, access to facilities, adequate training time, suitable equipment, access to appropriate competition and access to specialist expertise, for example sports medical assistance. These constraints may be built into

the process and thereby satisfy the ideal-type procedural requirements. Nevertheless, they represent a departure from the assumption that there will be no resource restrictions on the model. These restrictions may be particularly noteworthy when a change in circumstances may occur during a process. In addition, there will be occasions when the weather or other external constraints prevent the application of the planned procedures. The implications for the coaching process are that, although procedures and evaluations may be accurate, the coaching process may not be maximal in that it fails to match potential outcomes to actual outcomes because of a shortfall in resources.

SPECIFIC SPORTS

5.25 The application of the ideal model to a specific sport is one of the principal factors in determining the nature and extent of the coaching process. Within a particular sport, the level or standard of competition and the intensity of commitment of athlete and coach will compound the application. Although all circumstances can be accounted for in the situational audit and the constant presence of external factors in the process (conceptualised as the outer skin of the coil) will ensure a monitoring of these circumstances, some factors will be critical in determining the process. An example of this is the training time available. The most critical factor in the analysis of the model in practice is the specific sport within which it is applied. This has been alluded to many times throughout the description of the model.

5.26 There are five descriptors of individual sports which have a substantial influence on the coaching process. Firstly, whether the sport is performed by an individual or a team has an enormous influence on the

process and this has been identified on many occasions throughout the descriptions of the model. To encapsulate the effect of the coach dealing with a team rather than an individual is difficult in a brief description. The added complexity of the additional numbers will be felt throughout the process. Goal setting will be more difficult to evaluate; monitoring more involved; the setting of targets very difficult, where combined effort is required; the determination of training intensities very difficult if the group is working together; and the additional effect of player-to-player relationships will add to the potential for psychological stress.- The outcome is likely to be a process which is specific to the team but not necessarily individualised for each player. Individual attention and feedback will be reduced. Monitoring, analysis and evaluation will be a more complex business than in processes involving a single athlete. An intermediate stage may be reached where the coach deals with a group of individual competitors. Some compromise may also be required here between the time available to the coach and the degree of individualisation possible. Any reduction in the individualisation of the process is a departure from the ideal-type model.

5.27 Secondly, sport has a different role for the coach during the performance itself. In some, no participation whatsoever is allowed or considered viable. In others, the coach is a regular feature of the competition. In all sports the coach will be engaged in some form of pre- and post-performance communication with the athlete. However, in some sports, for example boxing, volleyball and basketball, the coach makes a structured contribution to the athletes' performance. This may be through advice, substitutions or the judicious calling of time-outs. The implication here is that in the latter examples, an additional competition factor is the performance of the coach. This must be accounted for in the

education, training and experience of the coach skills input to the process. There are also implications for the degree of autonomy to be encouraged in athletes.

5.28 The third factor to influence adaptation is the fact that each sport has developed to a specific level within its culture. Sports can be described as a major sports when they have relatively large numbers of participants and a high degree of visibility, particularly in the mass media. The sophistication of resources available to a coaching process will vary with the development stage of a sport and this will be reflected in the support base available to the process. This will evidence itself in the competition programme, published material, established practice, financial support and the availability of exemplars.

5.29 Fourthly, the competition pattern applying to a sport is a critical factor in the planning process. This has been described several times: sports being divided into cyclical, acyclical and target categories. Implication will be felt in the length of the preparation period and the number of occasions when threshold triggers may be activated as a result of performance monitoring. The sophistication of attempts at peaking within the preparation programme will also be influenced by the number and spread of principal target competitions.

5.30 Fifthly, the very nature of the sport itself will be reflected in the direct intervention programme. Whether the sport is a game, a race or a performance (for example gymnastics, ice-skating) will influence the preparation programme very substantially. The complexity of technique choices required as distinct from the repetition technique sports (for example swimming) will be reflected in the choice of exercises. The

contribution to successful performance made by the physical component will be reflected in the balance of the performance components in training. As a consequence the broad pattern of the coach's behaviour during the preparation programme will be determined by the essential nature of the sport. The close and complex involvement of the games coach whilst "feeding" and thereby determining the load, is quite distinctive from that of the athletics or swimming coach when observing an "interval training" session. This effect is compounded by the effect of the individual/team distinction. -

5.31 Each of the implications from the application of the process to a specific sport will be accounted for in the planning and operationalisation of the process. The result, however, will be very different processes. The direct intervention programme is determined to a large extent by the balance of performance components required by specific sports and the methods used to train and enhance these. Indirect coaching responsibilities will be made easier in a coaching process dealing with a developed sport, since exemplars and resources will be more readily available.

COACHING PHILOSOPHIES

5.32 In devising the detailed implementations of the coaching process, the coach will have taken into account his/her commitment to the process, expressed in quantitative and qualitative terms; his/her knowledge and skills; and goals for engaging in the process. These variables are built into the process. However, the operationalisation and interpretation of content and method will reflect the coach's philosophy about coaching. This will be evident in all procedures requiring analysis, in the

determination of content, and in communication styles. Therefore, at all stages, planning, implementation and translation, the individual coach will be a factor in the determination of the model in practice.

5.33 The coach will have an internal organisation of experience and values which will be reflected in beliefs and behaviour. The implementation of this philosophy about coaching will not, of itself, reduce or enhance the effectiveness of the process. This will occur only where the coach's philosophy results in an inappropriate procedure or form of implementation with a consequent reduction in effectiveness. The coach's philosophy about coaching is likely to express itself in matters affecting the whole process. Therefore, the degree to which the coach believes that coaching is an art or a science will be reflected in the practice of the rational pursuit of objectives. If the coach believes in intuition and experience with which to make judgements, then one of the assumptions of the coaching model is not being fulfilled and the model will not be ideally constructed. A similarly very significant scale of influence will be effected by the coach's beliefs about the involvement of the athlete in the decision making process. The ideal-type model assumes that the athlete is involved in this, but some further empirical research is necessary to determine the extent of the involvement required for most effective practice.

5.34 Clearly, the coach's personal qualities will be demonstrated in the leadership style or styles adopted by the coach. If these result in effective communication, the translation of the process should not be affected. Some communication styles will be more effective with some sports than others. For example the direct intervention programme for an outdoor team sport may require a particular form of communication in

comparison to an indoor individual sport. In addition, at this broad level of process determination, each coach will have a set of beliefs about the degree to which the athlete or the broad pattern of the process should have priority. This question presupposes that the coach, through experience, devises a style or system or set of process characteristics which suits him/her. Does the coach attempt to apply the athlete to this system or vice-versa?

5.35 In addition to this set of beliefs about coaching in general, the coach will also have a sports specific philosophy. This will be central to the choice of content, determination of tactics, exercise loadings, issues of quality versus quantity and psychological requirements.

5.36 Thus far the process has been described within a perspective which is uncritical about the values attached to sport and to coaching. No explanation is offered about the cultural or ideological contribution of sport to society or of the values reflected in a coaching model which assumes, for example, competition and striving for improvement. This is not to suggest that coaching happens in an ethical vacuum, but merely that the ideal-type model of the coaching process is described within a rational approach to clearly identified assumptions. Insofar as ideological analysis is likely to be at the level of assumptions rather than the specifics of process design, the opportunity is available for assumptions to be challenged on moral or ethical grounds.

SUMMARY

5.37 This chapter has examined the nature of the discrepancies to be anticipated between the ideal-type model and an analysis of coaching

behaviour in practice. The purpose of this stage of the conceptualisation of the coaching process is to identify those parts of the process where a departure from the ideal-type model is to be expected. A distinction was drawn between implementation, translation and reception features of the process. There were two sets of explanations for discrepancies in these areas. Firstly, assumptions on which the ideal-type model was predicated may not be fulfilled. Examples of this are the limitations imposed by "player-coaches", and the subsequent effect on communication, and the influence of resource constraints. Secondly, a number of sub-process or procedures may not be carried out adequately. Particular attention was paid to goal setting and the collection and recording of data with consequent implications for feedback regulation.

5.38 The outcome of the departure from the ideal-type model is a reduced effectiveness, particularly when the reason is an absence of, or reduction in, monitoring and regulation. Alternatively, the reduced effectiveness may be caused by the inappropriateness of the coaching practice. Such a situation may be the result of a failure to accommodate to external resource constraints.

5.39 Particular attention was paid to the influence of specific sports. The competition and preparation role of the coach was identified as being very significant in determining the nature of the operationalisation of the coaching process. The distinction between team and individual sports and their competition programme pattern influenced the outcome of the planning process and was recognisable in periodisation and component mix. It was further recognised that individual coaches would have a philosophy about coaching, for example, in terms of athlete-coach relationships, which would greatly influence the distinctiveness of

decisions concerning activity options, exercise loadings, strategy determination, athlete autonomy etc.

5.40 This examination of the relationship between the analysis of coaching behaviour and the ideal-type model has highlighted those elements and stages of the coaching process at which a departure is to be anticipated. As such, it provides an analytical tool with which to investigate coaching behaviours. It provides a set of guidelines within which to better understand coaching practice. The Weberian ideal-type model is not to be expected in practice. This chapter has identified those parts of the coaching process which would be expected to have been contextualised. As such it provides a platform for further study. The research project goes on to describe an investigation in which the relevance of the ideal-type model for describing and understanding the self-reported behaviours of a panel of experienced and well-qualified coaches is assessed.

**An exploratory investigation into the aptness
of the ideal-type model for describing
and understanding coaches' behaviour**

Chapter 6

The purpose of this chapter is to describe the development of the research project and the objectives of the study. The creation of the model employed a variety of methodologies complemented by extensive consultation with expert coaches to produce a conceptual framework intended to aid the analysis of coaching behaviour. The model was not based on a priori assumptions of coaching behaviour, but rather on an exploratory investigation into the aptness of the model for describing and understanding the reported behaviour of coaches. The model was developed through a series of stages, including the identification of the model's ability to describe and predict behaviour. The model's potential for describing and predicting behaviour was tested through a series of studies.

Chapter 7

Chapter 8

Chapter 9

CHAPTER SIX

AN EXPLORATORY INVESTIGATION INTO THE APTNESS OF THE IDEAL-TYPE MODEL FOR DESCRIBING AND UNDERSTANDING COACHES BEHAVIOUR

INTRODUCTION

6.1 The previous chapters have described the devising of an innovative ideal-type model of the coaching process and the application of the model in practice. The creation of the model employed a logico-deductive methodology complemented by extensive interaction with experienced senior coaches to produce a conceptual framework intended to act as the analytical tool identified in the review of literature as not being available to those analysing and describing coaches' behaviours. This chapter describes an exploratory investigation into the aptness of the ideal-type model for describing and explaining the self-reported behaviours of a small panel of experienced coaches. The intention is to conduct an investigation of the relevance of the model profitably to describe, analyse, understand and predict behaviour. The small panel of coaches were selected because of their length of experience, acknowledged coaching expertise and their rating as successful coaches with athletes at National representative level. The objective was two-fold: firstly to assess the extent to which the coaches independently rated as significant the key

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variables identified in the model and secondly the extent to which coaches claimed to engage in the core processes concomitant with a systematic, rational approach.

RESEARCH DESIGN

6.2 A questionnaire/check-list was administered to a panel of 30 experienced sports coaches: 10 each from swimming, volleyball and athletics. The questionnaire/check-list employed both closed responses and open-ended discussion to collect data on the opinions, self-reported behaviours and details of the practice context of the selected coaches. The data was collated both in summary form and by individual sport, and an evaluation offered of the extent to which the ideal-type model provides an effective description and understanding of the coaches' behaviour.

6.3 An important decision in the investigation was the reliance on self-reported behaviours from the coaches and the absence of systematic observational data. The issue was not a matter of qualitative versus positivist ideologies but a considered response to the challenges of validity and reliability. Three questions were significant. How valid is the self-reported behaviour as a reflection of actual practice? How valid is observable behaviour as a representation of the coaching process? How reliable is self-reported behaviour? The following factors were taken into consideration in reaching the decision to focus on self-reported behaviours:

- (a) The review of literature provided no clear evidence of success in a comprehensive analysis of coaching behaviour. Previous attempts had concentrated on observable rather than observed behaviour,

resulting in very narrowly focused studies. Adaptations of Flanders systematic interaction analysis methodology had concentrated on issues of verbal feedback and verbal/non-verbal behaviour.

- (b) Observational studies in general had focused on direct intervention strategies. It was the clear intention of this study to avoid this and to employ a more balanced coverage of the whole process.
- (c) Observational studies have tended to be episodic in nature. To this extent, the observations are heavily influenced by the factors affecting any one episode of coaching behaviour. Without a major research project and longitudinal study the effects of weather, differentiated coach involvement, periodisation and other more serendipitous factors are unlikely to be evened out.
- (d) It was anticipated, from the experience of the researcher and preliminary investigations that coaches would have committed relatively little to paper. It is important, therefore, to pursue the coaches' intentions.
- (e) The practice of the coaches was not an entirely unknown factor. A preliminary study at an early stage of the project had involved visiting athletics coaches and observing them during a training session in addition to seeking self-reported behaviour. 40% of the swimming coaches had been observed during a coach education course. Each of the volleyball coaches had been observed during training and competition by the researcher.

- (f) The procedures adopted allowed the researcher to follow up the coaches' responses and to seek for evidence if required. Additionally, there were a number of interdependent questions which acted as a check on coach responses.

- (g) There was a less tangible factor which proved, in practice, to be a significant contribution to the validity of the data. The researcher was able to use his knowledge and credibility as a coach and coach educator to establish a climate of open discussion. Coaches reacted to the interest in their work by demonstrating a marked commitment to the investigative process.

The claims and opinions of the sample coaches were an integral part of the investigation. Nevertheless, the practice of coaches was also recognised to be very important indeed. For the reasons adduced above, self-reported behaviour was assessed to be an acceptable valid measure of the full coaching process and a reflection of practice. Many of the factors affecting validity also contribute to an evaluation of the reliability of the coaches' responses. Insofar as the intention was to collate a 'snap-shot' of coaches claims to be engaged in core processes, a reductionist measurement of test-retest reliability was considered an inappropriate procedure for this investigation into coach perceptions and claims.

6.4 The coach sample was selected from three sports: volleyball, athletics and swimming. Three sports were chosen to represent a range of factors influencing coaching practice and coaching structures. No evidence was identified in the literature search to suggest that coaching was substantially different in team and individual sports. The range of sports employed accounted for differences of developed/undeveloped status,

team/individual, league/target competition pattern, club/informal squad organisation and differentiated coach involvement in the competition itself.

- 6.5 The role of the athlete in the coaching process was recognised in the discussion of core concepts of the ideal-type model. Athletes are acknowledged to make a more intense commitment to the process when they have a synoptic overview of the process and have been consulted on issues concerning goal setting. The focus of this investigation is on the coach, that is, the person who directs the process. No data was collected about the performance of the athletes working with the coaches other than to recognise that they were of representative standard. No attempt was made to suggest the nature of the relationship between coaching behaviour and athlete performance. There is no evidence in the literature of this having been established successfully.

SAMPLE

- 6.6 In order to obtain a representative sample of experienced coaches, contact was made with the National Coach of each of the sports concerned. With their assistance a list was compiled of coaches currently engaged with athletes representing Scotland or Great Britain. All coaches in this stratified sample had obtained the National Governing Body senior award and the majority were holders of representative team/group positions. Given the insistence on experience, award and standard of athlete, it was not surprising that the number of coaches from which to choose was not large. In each sport, the sample number represented between 50% and 60% of possible choices. The final sample was obtained on the basis of random selection and availability.

PROCEDURE

- 6.7 Each coach had a personal interview conducted in the home (27%), workplace (40%) or at a sporting venue (33%). The questionnaire/check-list was completed by the researcher, the questions having been given verbally. Respondents completed those sections requiring a priority ordering or numerical response. The interviewer amplified the responses given to the open-ended questions by probing with further questions, and asked for examples of responses to closed questions.
- 6.8 It was considered to be very important to have the researcher present to complete the questionnaire/check-list. The researcher used his experience and credibility as a coach and coach educator to establish a rapport with the coaches. On no occasion was there any resentment at the questions or any reluctance to respond. All coaches expressed interest in the project and proffered information beyond that required for a minimum completion of the research instrument. In addition to ensuring a 100% response from the coaches invited to respond, the researcher was able to take an active part in the procedure. Most importantly, the interviewer was present to validate the self-reported data. This was achieved by asking for evidence, for examples and by seeking generalised accounts of sub-processes before proceeding to the questions themselves. The interviewer was able to elaborate on questions where necessary and to seek further clarification of responses to open questions. The questionnaire/check-list was compiled using words and phrases generalisable to all sports. Nevertheless, it was thought to be more likely to put coaches at their ease by using terminology specific both to their

sport and to their individual circumstances. Therefore, the researcher used these terms when elaborating on questions.

PRE-TEST

6.9 The questionnaire/check-list was pre-tested for understanding and clarity on four coaches and in terms of a sample response, on an experienced swimming coach who would have been a suitable member of the coaches panel. As a result of the pre-test, a number of questions had their wording altered slightly. The most significant outcome of the pre-test was that it was decided to focus the coach's mind on the sub-process being examined by firstly asking for a generalised account of the coach's approach. This not only allowed the coach to focus on the sub-process (for example goal setting, planning) but informed the interviewer of likely responses.

QUESTIONNAIRE/CHECK-LIST

6.10 The research instrument was devised in such a way as to furnish the investigation with the data required : the intention was to assess the coaches' rating of key variables and to examine their claim to engage in core processes. There were four parts to the instrument:

- (a) an evaluation by the coach of the extent to which coaching practice was limited by the factors identified,
- (b) a opinion rating by coaches of the importance attached to key elements of the process,

- (c) a numerical response indicating the significance of key process elements within their coaching practice, and
- (d) an extensive series of self-reported data on responses to questions, both open ended and closed, about core elements of the coaching process.

The substance of the questions was derived from the model itself. Process related core elements were employed to generate questions rather than catalytic key concepts. Therefore, regulations, planning and operationalisation/implementation formed the structure and substance of the questionnaire.

(See Appendix A for the questionnaire/check-list).

REPORTING

6.11 The results of the responses from coaches in each sport were tabulated and are presented immediately following the text of each of the next three chapters. A summary interpretation and evaluation of the results for each sport is presented in the chapters which follow. These are then drawn together in a subsequent chapter, comparisons made between sports, and the claims for the ideal model examined. An evaluation is then made of the extent to which the ideal-type model is able effectively to describe and aid an understanding of coaches' behaviour.

CHAPTER SEVEN

A summary of responses of swimming coaches to the project questionnaire and an assessment of the aptness of the ideal-type model for describing and understanding their behaviours

Responses were collected with 17 swimming coaches. The methodology employed was the completed questionnaire. The form of questionnaire/check list used was a self-administered swimming coach of exactly similar structure to information provided by 10 coaches (8 men, 2 women) who coached swimmers on the list provided. The results are presented in Table 7.1 in the text of this chapter. The form of the review is as follows. There is a summary of the results themselves, a discussion of the particular implications for those relevant to the model. Following this there is a summary evaluation of which the coaches claim to be engaged in the core activities

CHAPTER SEVEN

A SUMMARY OF RESPONSES BY SWIMMING COACHES TO THE PROJECT QUESTIONNAIRE AND AN ASSESSMENT OF THE APTNESS OF THE IDEAL TYPE MODEL FOR DESCRIBING AND UNDERSTANDING THEIR BEHAVIOURS

INTRODUCTION

7.1 Interviews were conducted with 10 swimming coaches. The principal methodology employed was the completion by the interviewer of a structured questionnaire/check-list. Having been pre-tested on a swimming coach of exactly similar standing, the information was obtained from 10 coaches (8 men, 2 women) who coached swimmers of internationalist standard. The results are presented in Tables 1-11 which follow the text of this chapter. The form of the review is as follows. There is a summary of the results themselves, with an assessment of the particular implications for those relevant core elements of the model. Following this there is a summary evaluation of the extent to which the coaches claim to be engaged in the core elements of the ideal-type model.

STRUCTURAL DATA ORGANISATIONAL/PERSONAL (TABLE 1)

7.2 All coaches were well qualified in terms of swimming coaching awards and were very experienced. The average age was 42 and with the exception of the two coaches under 30 years of age, they had been coaching for some time. There was a wide range of employment for those who were coaching on a part-time basis. There were three full-time coaches and one whose part-time employment was for the Scottish Amateur Swimming Association. All coaches were remunerated for their employment as coaches. Seven of the coaches considered their remuneration to be beyond honorarium status. There were a number of different modes of receiving payment. This appeared to reflect personal approaches to income tax and employment status. All coaches worked within a club organisation. The single exception was coach J who combined a District Authority post as Swimming Development Officer with a 'club-like' organisation.

7.3 Coaches were committed to a minimum of 12 hours per week in training/preparation time. Part-timers averaged 8 sessions per week, with the full timers averaging 11. The commitment over the year was remarkably consistent, namely 46-48 weeks per year. The training sessions were added to by attendance at competitions. A high number of the coaches were involved with the National Squads of the Scottish Amateur Swimming Association (SASA). This reflects not only their experience with representative swimmers but also the policy of the SASA to involve many coaches with the National Squads. In most cases this was not an excessive amount of additional time. The typical age range of the swimmers was 10-18 and most of them were school pupils.

LIMITATIONS TO THE IMPLEMENTATION OF THE COACHING PROCESS (TABLE 2)

7.4 Coaches were asked to give a numerical score to factors which influence their capacity for implementing the ideal coaching process (see Table 2). In addition to the factors listed in the questionnaire, coaches were given the opportunity to suggest further limitations. The additional factors identified were as follows:

- Coach A - suitable assistants
- Coach B - a broad policy for the direction of coaching in Scotland
- Coach C - the absence of suitable assistance from Local Government
- Coach D - other employment, not being full-time
- Coach G - the times of the day when facilities are available
- Coach H - times of sessions; not being full-time; the availability of test results from blood lactate analysis
- Coach I - difficulty of merging with other full-time employment
- Coach J - no access to blood lactate analyser

These responses were sought as constraints likely to be to the forefront of the coaches conscious deliberations about the process. In fact for many of the additional factors mentioned, the opportunity had already been given to highlight the issues of equipment, availability of the coach, and suitable support. Nevertheless, the identification of lactate analysing equipment and the times of the day when facilities were available were useful additional data.

7.5 A number of factors were rated by the coaches as being restrictive. Finance was restricted and was most often found to lead to a diminution of

the competitive programme because of travel costs. The absence of support services, the athletes' ability and the social/educational circumstances of the athletes all received high scores. The availability of facilities was very restrictive in the cases of coaches A and H. Interestingly these coaches also responded with high scores on the hours available for preparation and the availability/commitment of the coach. The general reaction to this latter factor was low despite the concern over the part-time nature of the job. These scores clearly reflected attitude and availability within the parameters made available by the organisation.

7.6 Generally low scores were given to factors such as the coaches' skills, knowledge and experience, the competition programme available, the need for equipment and the availability/commitment of the coach. There were varied but not extreme reactions to other factors. On the whole, the scores of the full-time coaches were lower. This was reflected in the access to facilities.

7.7 Coaches seemed to conceive of the restrictions being in the organisation of the process - access to pools, finance and support staff - and of the availability of the swimmers themselves. The constraints were not perceived to be in the ability of the coaches themselves or in the external environment. There is a caveat to this in that two coaches expressly noted the absence of a coordinated national policy amongst sports agencies as being a limitation. In summary the nature of employment was perceived to be restrictive where it was on a part-time basis. Other factors influenced the scale and extent of the process rather than its internal mechanisms.

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SIGNIFICANCE OF PROCESS COMPONENTS IN PRACTICE (TABLES 3 A AND B)

7.8 Coaches were asked to rate on a scale of 1-5 the extent to which key variables of the model were perceived to be significant in their coaching practice. There was a distinct gap between the five most highly rated components and the remainder. Physical conditioning, planning, competition management, technique development and practice management were rated above the others of which tactical development and social relationships with athletes were most lowly rated. It is understandable that physical conditioning and technique development should be perceived as important given the nature of the sport. It was significant, however, that planning and the management of practice and competition were given such prominence. All components had average scores of at least 3.0 (fairly important).

7.9 At the same time, coaches were asked to rank the components in terms of emphasis in time and effort. Not surprisingly the rankings reflect the earlier scores. However, it is surprising that social relationships with athletes is ranked so lowly. As with tactical development, this may reflect time spent rather than perceived importance. The order of ranking is what might be expected from coaches in this sport with its emphasis on planning and the operationalisation of a systematic process in preparation and competition modes, and with a highly sophisticated physical and technique programme. It must be recognised, however, that these are very crude measures with which to discuss the processes themselves. Broad component terminology used to identify key variables such as was used here is for the purpose of prioritising and ranking. More detailed questions in later tables will provide process-related

feedback on the particular behaviour of the coaches. Key variables were rated highly by the coaches with the rankings heavily influenced by the sport.

PROCESS BOUNDARIES (TABLE 4)

7.10 Questions in this section were designed to explore the process through which coaches and swimmers came together and formed agreements leading to mutual expectations of practice. From the results presented in Table 4 it is clear that it is not the general practice to have written agreements between coaches and athletes. However coaches in general have conditions of service specified. This is not surprising since all coaches were remunerated for their services.

7.11 The 'form of approach' data indicates that the majority of swimmers come into contact with coaches by emerging through the club 'squad' system. This will be as a result of maturity and evaluations of potential performance, and the expectation of a certain intensity of work. All coaches had also been approached by swimmers who wished to join the club because of the presence of that particular coach. Reputation attracts swimmers who feel that they are being assured of sound coaching. Some coaches admitted to approaching talented swimmers and inviting them to join their squad.

7.12 When coaches were dealing with 'in-comers', there was a conscious attempt to evaluate potential before agreeing to work with the swimmer. This review was rated by coaches as cursory and was based principally on previous performance evaluated by age and maturity. There were virtually no written records of this part of the coaching process. Coach C

commented upon the difficulty of measuring potential in youthful swimmers. Coach I had a 6 month probationary period during which the ability, attention and attendance of swimmers was monitored. Coach J, working within the Local Authority Scheme, had a 3 month performance and commitment trial period. This scheme also involved a selection process.

7.13 In summary, coaches did not claim to engage in this part of the process in a very systematic manner. Few records are kept. The coming together of a coach and an athlete with potential may be as a result of good scouting and an approach by coach and athlete. It may also be a result of systematic progress through the club squad programme. These findings are of direct relevance to the application of the programme. The initiation process and the determination of the working practices surrounding this is not systematic. However, formal and informal processes exist to ensure that experienced coaches with good reputations and swimmers of recognised potential come together. It is likely that within this informal process mutual expectations of working practices are thereby enacted.

GOAL SETTING (TABLE 5)

7.14 This section of the investigation examined both the process and the product of goal setting. Coaches reported that the process was both unsystematic and largely unrecorded. Goals were identified but most often not in writing. The process itself was not recorded, although most coaches identified a formal occasion when goal setting took place. The full time coaches approached goal setting formally but were no more systematic in their recording.

7.15 The coaches responded to the constituent factors to be accommodated during the goal-setting process itself. There were coaches who said that they did not take into account one or other of the factors identified. However, in general there was a positive response to all of the factors identified. In translating the process into operational products, the coaches indicated that the outcomes were appropriate and recognised their value. The majority had identified short, medium and long term goals. However, when pressed in a later question to say if the training and competition targets were identified in writing there was a very mixed response. Although it is strictly a matter for operational planning, there was a significant number of coaches who did not have a detailed weekly programme. Many preferred to identify an outline plan for the week and to draw up specific unit plans as the situation required.

7.16 The common answer to the question of sufficient data being available to assist in the goal setting process was in the negative. Similarly there was a mixed response to the question of identifying non-performance goals. Although all coaches identified training and competitive targets and the total number of training hours required, the non-performance goals were not clearly specified. Coaches A and C said that they strove for non-performance goals but these were not identified. Coaches E and G identified academic or school attendance goals. F and H mentioned values or character building. Given the significant period of time set aside in the week for training, it is noteworthy that coaches did not pay more attention to non-performance goals particularly with the younger swimmers.

7.17 In summary, goal setting was recognised as an important stage of the coaching process. Coaches engaged in this more as a part of the planning process than as a part of an agreement with the athlete as to the basis of the process itself. General goals were assumed. Specific goals were not always set down in writing. The process appears to be more formal with the better swimmers. Several coaches commented that the better swimmers had their goals in writing. An important point was made to the effect that the process of goal setting is dynamic and rarely if ever takes place from scratch. The responses indicate that the first stages may not be systematic for many coaches. There is an unfolding of specific goals as the planning process unfolds. Coaches indicate that subsequent general goals may not need to be verbalised. The apparent lack of attention to individualised goal setting for every swimmer may well be reflected in the response, detailed later, that coaches did not feel that the process as a whole was sufficiently individualised.

OPERATIONAL PLANNING (TABLE 6)

7.18 The pre-planning model was employed by five coaches and the period of time for which detailed plans were available varied considerably. However, those coaches who had used the pre-planning model had detailed plans for the longer periods of time. There was a clear indication of a period of time of 4-6 weeks as a useful norm for forward planning. Coaches reported behaviours exhibit a number of possible short cuts in the planning process. Coaches may simply take goals for granted or at least assume adherence to the agreed targets. Medium term planning may be simply in broad outline, although the pattern seems to be for a detailed plan of the 4-6 week or meso cycle period. There may or may not be a weekly plan extrapolated from the larger plan. Dependent upon this

stage, the daily or sessional plans are either inferred as a guide or devised in detail. In devising drills and loadings, coaches used their experience and previous planning. Also used were established sources and the results of testing. Most coaches reacted against the notion of working from first principles to devise training loadings.

7.19 In summary, the notion of cycles or periodisation was reported as common to the work of coaches. This is not surprising in swimming given its dependence on physical conditioning and the target-orientated nature of the sport. However it was surprising that there were many coaches who had no written records of the training programme.

7.20 In general terms, the planning process is considered very important. This is confirmed in tables 3 (a) (b) and 11. There is some evidence of a varied approach to the process of planning and this varies from the total 'seat of the pants' to the completely detailed. Most coaches report adopting a middle approach which combines broad directions and guidance principles with operational requirements.

MONITORING (TABLE 7)

7.21 Coaches were asked to identify that factor against which progress of the swimmers was measured. It was clear from the responses to a number of questions that monitoring and evaluation of progress is not a continuous, systematic process. Coaches measured progress against competition outcomes, more so if important ones, and against progress in training, particularly when compared to similar points in the previous year. There were a number of phrases which illustrated this:

- "not systematic, a 'gut' feeling"
- "if within 2-3 weeks of an important competition"
- "interplay of load and commitment, maturity, lifetime best, same point in season last year"
- "prior to going into taper (2 points in the year)".

7.22 It is clear that coaches rely on measurement by times and an intuitive sense of appropriate reaction to the training loadings. When asked what the action to be taken was, if training objectives were not reached, there were varied responses. However, there was a low threshold at which the discrepancy was noted. It was reported that it was always investigated after a very short time. However, little direct action would ensue. Training goals were often amended but the progress of the cycle was rarely altered - often because of the squad system.

7.23 Progress in training was measured against the results of objective tests (lactates, test sets) and training quality. When asked about the difficulty of assessing potential performance, coaches reported that they did not consciously monitor potential after each training session although they did after each competition. The questions explored the difference between current potential performance and previous expectations of performance. There appeared to be a higher threshold at work here. Expectations would remain until the coach was certain that the targets could not be achieved. Only at that stage, would there be a resetting of goals. The explanation for this appears to lie with the difficulty of assessing potential performance and the very large numbers of variables involved.

7.24 Coaches reported that they used feedback in the planning process and rated it highly when given the opportunity. Some coaches were not conscious of

feeding-back from session to session and did this in weekly units. There was a universal reaction against the notion of assessing the potential or rather expected performance from single units or even weeks. All coaches reported using both systematic principles and intuition in their direction of the programme.

7.25 When monitoring the progress of the coaching process, coaches gave the anticipated reinforcement to the criteria of training and competition targets. However, two coaches (H and J) did not acknowledge athletes' satisfactions in their criteria. Medical condition did not receive unanimous support and there was some doubt over using the completion of the programme as a useful criteria.

7.26 In summary, the importance of using specific competitions to monitor progress was stressed by coaches. The nearness to an important competition appears to dictate the level of monitoring undertaken. The absence of a totally systematic and objective approach is the reason for the inertia in making change. Accounting for variables in assessing potential and in monitoring progress is approached in an intuitive manner. There is an overriding influence of group rather than individual programming for the majority of coaches, although some of this has been alleviated by specific lactate determined training thresholds.

DIRECT INTERVENTION (TABLE 8)

7.27 By and large, coaches are always present at poolside training sessions. The pattern is that they are accompanied by an assistant coach, very rarely by a physiotherapist and never by a sports psychologist. The assistant coaches are said to be involved in the planning of the

programme. Many swimmers are engaged in training when it is not supervised by the coach. This is usually flexibility or land training work. Most often this is planned and directed by the coach but coaches report that is not closely monitored. One coach employed a commercial gymnasium to supervise this.

7.28 Coaches consider themselves to have an important competition role and this function was rated highly on all occasions. Only one coach considered that it was not important that he was present. In deciding on the strategy for a race, time scales varied from 'on the day' to 'five days'. A pattern emerges, however. The race tactic, that is the general pattern of pacing is determined over time, particularly during the taper period. On the day of the competition the level of the opposition and heat selections may determine the strategic approach. Coaches were generally present at competitions and had predetermined targets. There was little video recording reported, although most coaches had experimented with it, but the very nature of the sport meant that 'split times' and other outcomes were carefully recorded.

7.29 Contingency planning was identified as very important by coaches. This may take the form of amending session plans in the light of athlete response (health, reaction to previous load) or, in extreme, the delaying of writing or determining session details until the circumstances applying to the session have been considered. More consideration is given to the volume of previous work than the performance quality.

INDIRECT RESPONSIBILITIES (TABLE 9)

7.30 In the great majority of instances, coaches reported that they had the assistance of a manager to alleviate the administrative burdens associated with the process. Even so, the part-time coaches felt that these indirect responsibilities were too time consuming, although they did not allow them to restrict their work with the swimmers. Perhaps not surprisingly the full-time coaches did not find these responsibilities too time consuming. All coaches recognised that indirect responsibilities were supportive of the process with the swimmers.

7.31 Coaches were asked if they considered the process to be sufficiently individualised. The majority said no. There was a tendency to adopt a squad programme but the better swimmers had individualised programmes. Fairly often, this appeared to be the basis for determining the programmes of the other swimmers.

COACHING PHILOSOPHY (TABLE 10)

7.32 Value frameworks were not easily identified and not easily verbalised. Few coaches said that they differed in technical interpretation from the mainstream sports specific philosophy. There was one exception, however, who espoused technical training. There was a large degree of variety in the responses. Many used words which might be expected in a discussion of coaching philosophy. One said that he was autocratic, another said not autocratic enough. Coach H with an education background had a very person-centred approach: others mentioned autonomy for the swimmers and intuition in approach. If any common thread could be expressed, it was the business like approach. Coaches referred to sound

technique, and put emphasis on preparation, balanced applications of principles and the use of objective testing. There were a number of indicators of the way in which the coaches' philosophy might be reflected in their programmes. The clearest distinction would be the attention to detail and systematic approach reflective of the business like approach and the less systematic approach taken by others.

OPINION RATINGS OF PROCESS ELEMENTS (TABLE 11)

7.33 In previous questions coaches had been asked about their current practice and the extent to which they engaged in some of the core elements of the process identified in the ideal-type model . In this instance, coaches had been asked for their opinions as to the relative importance of the process elements identified. A number of general trends emerged, although the responses were generally very high scoring. The establishment of working practices and the introductory phase of working together was considered important. Similarly goal setting elements were rated highly with the exception of accommodating the coaches ambitions. All planning functions were rated highly.

7.34 In direct intervention, feedback concerned with performance outcomes and athlete response was emphasised. The management function in training sessions was considered important. A very strong reaction was given to the coaches' directive behaviour. Unit plans were not always to be interpreted exactly. Interpersonnal relationships was given a high score. Competition role functions were all rated very highly. In indirect responsibilities there was a varied response. Counselling athletes and support staff were given prominence. In addition, the coaches' need to be aware of contemporary developments was scored highly.

7.35 The findings of this part of the questionnaire have to be related to the responses given earlier. In practice, time factors ensure that coaches concentrate on those elements of the process considered to be priorities. For this reason goal setting and social relationships are rated as important but not systematically attended to. Short cuts are taken in the production of the outcomes of the planning process. Indirect responsibilities are delegated to managers wherever possible. With this perspective it is possible to see why coaches give priority to the management of training sessions and competitions, and the 'middle' stages of planning.

SUMMARY

7.36 As represented by this panel of coaches, swimming coaches attended all pool sessions and sessions were operated on a squad basis within a club framework. The processes were coach dominated to the extent that the detail of the training load is always determined by the coach. In determining the planning programmes, coaches engaged in goal setting which was designed largely to achieve agreement on target times and performances. The planning process had some systematic features to it. There were outline plans for 4-6 weeks and progress was measured on the basis of competition times. However, the practice of coaches was to devise smaller units on the basis of experience, habit and a repertoire of practice patterns. This intuitive operationalisation was worked out 'in the head'. Although there was a business-like approach to recording, it tended to be organisational details rather than individual process-related data. Swimming coaches operated with large numbers of athletes, often responsible for many squads through a system of club coaches and

assistants. This requires a degree of forward planning and organisation. The implementation of the coaching process is determined largely by the common practice of coaches and within a seasonal practice determined by competition and club structures. There is an attempt to work systematically in that overall seasonal loading factors are determined by theoretical principles and there are attempts to base loading factors on objective measures - blood lactate testing or percentages of personal bests. However, the day-to-day implementation of the process, particularly in terms of assessment of progress, is intuitive and assumes a contingency element in the planning process.

7.37 Although the responses of all coaches will be aggregated, it is possible at this stage to make a number of evaluative comments about the appropriateness of the ideal-model for explaining the self-reported behaviour of the swimming coaches. In summary, the ideal-type model did not offer an adequate description nor explanation for the coaches' practice. Notwithstanding the influence of application factors pertaining to swimming, there was a disparity between the engagement of the coaches in the core process of the ideal model, as reported by the coaches themselves, and the predicted behaviour from the model itself.

7.38 The coaches were of the opinion that the factors limiting the coaching process were contained in the external environment and not related to the coaches direction or capacity for direction of the process. The coaches gave considerable significance to planning and practice management. Nevertheless, the self-reported practice of the coaches did not reflect a systematic approach to the planning, implementation and regulation of the process. Clear examples of this were to be found in the absence of recording of goal setting, the lack of individualisation in programming, an

intuitive monitoring process and a dependency on contingency planning. Nevertheless, there were attempts to objectify feedback and monitoring, and the systematic, rational approach was rated highly by this panel of experienced coaches.

7.39 The key variables which underpin the ideal-type model were recognised by the coaches to be an important part of the process and to this extent a description of the practice of the coaches was possible using these terms. However, the difference between the coaches' practice and the behaviour derived from the model could not be explained in terms of the external limitations imposed on the process. There were short cuts in planning and operationalising. There appears to have been a planning shell surrounding the coaches' practice and it is possible to identify major competitions as significant monitoring and regulatory criteria. The coaches made efforts to reconcile the large number of impinging variables but the process was not continuously responsive to changes.

7.40 The ideal-type model failed to provide an adequate description or analysis of the process engaged in by the swimming coaches. The translation of underlying rational, logical assumptions into the coaching process does not provide an appropriate model of the coaches' practice and the behaviour requires an alternative explanation.

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
AGE	33	41	53	31	47	57	27	40	47	24	24
SEX	M	M	F	M	M	M	M	M	M	F	F
MARITAL STATUS	M	M	M	M	M	M	M	M	M	S	S
EMPLOYMENT	Teacher	Teacher	Housewife	Tech. Officer	Medical Rep.	Swimming Coach	Swimming Coach	College Lecturer	College Lecturer	Swim Officer	Swim Devel
DESCRIPTION	ASA	ASA	ASA	SASA	ASA	ASA	ASA	ASA	ASA	ASA	ASA
LEVEL OF	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.	Rep.
COACHING	12	16	15	10	13	30	4	19	8	5	5
AWARD	Club	Club	Club	Club	Club	Club	Club	Club	Club	Club/Dist	Club
ATHLETES	Salary	+ Honor	Honor	Salary	Honor	Salary	Salary	Salary	Honor	Salary	Honor
NO. OF YEARS	8	9	7	10	10	12	10	6	8	11	9
COACHING	1½	2	2	1½	2	1½	1½	2	1½	2	1½
STRUCTURE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RENUMERATION	46	46	48	48	47	46	50	42	47	48	47
NO. OF SESSIONS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PER WEEKS	4/year	(1)	-	N/A	2/year	N/A	1	N/A	4/year	N/A	N/A
AV LENGTH											
ATTEND											
COMPETITIONS											
WEEKS PER YEAR											
NATIONAL REP											
TEAM											
SESSIONS/MONTH											

(1) Respondent noted the distinction between 'day' and 'session', as swimming coaches may have more than one session in the day. In addition, with representative teams travelling abroad (Coach B was travelling to the Olympic Games in Seoul) the number of days cannot easily be averaged.

TABLE 1 Demographic/experiential data - swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
1 Facilities	10	5	7	2	2	0	3	10	7	3	4
2 Experience	2	2	4	1	4	0	2	1	4	5	5
3 Finance	10	9	10	4	10	0	9	6	6	1	6
4 Knowledge/Skills	2	2	3	3	4	5	1	1	4	5	5
5 Availability of competitions	3	3	2	0	2	0	3	1	3	7	3
6 Athlete commitment	7	3	2	2	2	7	4	5	4	7	8
7 Hours for prep/training	7	4	8	2	2	0	3	9	4	2	9
8 Info from NGB	5	3	8	7	3	9	1	7	4	5	3
9 Availability of Equipment	1	2	7	5	4	0	3	4	6	2	2
10 Avail/commitment of coach	9	3	0	5	0	0	0	6	3	1	1
11 Ability to forecast potential	2	1	0	5	3	0	1	1	4	3	4
12 Support services	8	5	7	8	7	10	1	4	8	5	9
13 Athletes' abilities	5	2	3	5	5	7	3	7	4	5	5
14 Athletes social circumstances	8	7	8	3	7	5	4	9	6	5	7
15 Absence of object plan data	5	3	4	8	1	4	1	3	4	2	4

Table 2 Limitations to ideal model - swimming (scores 0-10)

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
1 Physical Cond.	5	5	4	5	5	5	5	5	4	5	5
2 Psychological Prep.	3	5	3	4	3	5	3	4	3	3	4
3 Technical Devel.	5	4	5	3	4	3	5	5	3	4	3
4 Tactical Devel.	2	4	3	4	4	5	3	2	2	1	2
5 Practice Management	4	4	5	3	5	5	5	2	2	5	4
6 Competition Management	5	4	5	5	3	4	5	4	3	4	4
7 Goal Setting	2	4	2	5	3	4	4	5	2	3	4
8 Planning	3	4	4	5	5	4	5	4	4	5	4
9 Prevention of injury	2	5	2	2	5	4	3	2	3	5	3
10 Objective Testing	3	4	3	4	5	3	4	4	2	4	4
11 Monitoring Social Relationships	3	3	4	3	3	2	2	5	2	3	3

**Table 3A Significance of Process Components in Practice - swimming
(Scores 1-5)**

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
1 Physical Cond.	1	1	4	1	1	1	1	1	2	1	1
2 Psychological Prep.	6	2	8	5	4	2	8	4	5	9	2
3 Technical Devel.	2	6	1	7	2	9	2	3	3	5	8
4 Tactical Devel.	10	10	9	6	9	3	10	11	11	11	11
5 Practice Session Mgt.	4	5	2	9	3	4	3	9	7	4	7
6 Competition Management	3	9	3	4	10	6	4	5	4	7	3
7 Goal Setting	9	8	11	3	8	5	6	2	9	10	5
8 Planning	5	4	5	2	6	7	5	7	1	2	4
9 Prevention of injury	11	3	10	11	5	8	9	10	6	3	10
10 Objective Testing	7	7	7	8	7	10	7	8	8	6	6
11 Monitoring Social Relat	8	11	6	10	11	11	11	6	10	8	9

Table 3B Significance of Process Components - swimming (Ranking 1-11)

AMATEUR ATHLETES	YES	NO
AMATEUR ATHLETES	1	NO
AMATEUR ATHLETES	YES	NO
AMATEUR ATHLETES	YES	NO
AMATEUR ATHLETES	YES	NO

AMATEUR ATHLETES - YES

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
1 Written Agreement	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO
2 Organisational Basis	N/A	N/A	N/A	N/A	N/A	N/A	NO	N/A	N/A	N/A	N/A
3 Conditions of Service (Coach)	YES	NO	YES	YES	NO	YES	YES	YES	NO	YES	NO
4 Form of Approach	SQUAD + ATHLETE	SQUAD + ATHLETE	SQUAD + ATHLETE	SQUAD	SQUAD	SQUAD + ATHLETE	SQUAD + ATHLETE + COACH	SQUAD + COACH	SQUAD + ATHLETE	SQUAD + ATHLETE	SQUAD
5 Analysis before Agreement	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	-
6 Review (1-5)	1	3	2	-	2	N/A	3	5	3	3	4
7 Written Report	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO

Table 4 Coaching Process - Boundaries - swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Written Record	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO
Short Term Goals	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Medium Term	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Long Term	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Outline Periodisation	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Program 4-6 Weeks	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Detailed Schedule 1 Week	NO	NO	NO	NO	YES	NO	YES	YES	YES	YES	YES
Formal Occasion	NO	SOME	YES	NO	NO	YES	YES	YES	YES	YES	YES
Informal Approach	YES	SOME	N/A	YES	YES	N/A	N/A	N/A	N/A	N/A	N/A
Process:											
Coaches Ambitions	YES	YES	NO	YES	NO	YES	YES	NO	YES	NO	NO
Evaluation of Potential	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
Club/Squad Goals	YES	YES	NO	YES	YES	NO	YES	YES	NO	YES	NO
Social/Educ.Circumstances	YES	YES	NO	NO	YES	YES	YES	YES	NO	YES	YES
Athletes Wishes	YES	YES	YES	NO	YES						
Sufficient Data Available	NO	NO	NO	NO	NO	YES	NO	NO	YES	YES	NO
Identified											
No.of Hours	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Training Targets	NW	YES	YES	W	NW	NW	W	NW	NW	NW	W
Competition Targets	NOT FORMAL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Competition Results	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES
Non-Performance Goals	NW	YES	NO	W	NW	NW	W	NW	NW	W	W
	NO	YES	NO	NO	YES	YES	YES	YES	NO	NO	NO
		NW				NW	NW	NW			

Table 5 Coaching Process - Goal Setting - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Pre-Planning Model	NO	NO	YES	YES	NO	NO	YES	YES	NO	YES	YES
How Many Weeks Detailed	4-6	NONE	6	SEASON	1	1	3/4	4	3/4	8	4
Graphical	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES
Loading for Season	YES	OUTLINE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Drills:											
Established	ACK	YES	NO	YES	YES	NO	YES	YES	YES	YES	YES
Experience	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
First Principles	NO	NO	NO	NO	OCC.	NO	YES	YES	NO	YES	YES
Testing	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Previous Planning	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Written Episode	YES	OUTLINE	YES	YES	YES	NO	YES	NO	YES	YES	YES
Written Record	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES
Workload Factors	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES

Table 6 Coaching Process - Operational Planning - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
	Competit. Times	Competit. Times: Results	Lactates: Training Results:	Competit. Perf.	Training Perf.	Competit. results	Lactates: competit. Results test sets	Same point in previous session(1)	Competit. times	Recent perf. in competit.	test sets Competit. results
	1 session	quickly	less than one cycle	4 weeks	2/3 days	1 week	3/4 weeks	-	immediate invest.	2/3 sessions	2 weeks
Non Achievement											
Outcome	NO	YES	YES	YES	NO(4)	NO	NO	NO	NO (4)	NO	YES
Delay Period	PERHAPS	YES	(3)	NO	YES	NO	YES	NO	YES	YES	YES
Alter Performance Expectations	YES	YES	YES	YES	YES	NO	YES	POSSIBLE	YES	YES	YES
Redo Training Goals											
Feedback	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES
Unit-Unit	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
Week-Week	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
4/6-4/6	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Period-Period	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Unit-Performance	NO	NO	NO	NO	NO	YES	(2)	NO	NO	NO	NO
Expectation											
Week-Perf.Ex.	YES	(2)	(2)	NO	YES	YES	YES	NO	NO	YES	YES
4/6-Perf.Ex.	YES	(2)	YES	YES	YES	YES	YES	NO	YES	YES	YES
Period-Perf.Ex.	YES	(2)	YES	YES	YES	YES	YES	POSSIBLY	YES	YES	YES

Notes:(1) This respondent gave a fuller answer. He noted the interplay between loading and commitment, the maturity of the athlete, the athlete's lifetime best and the quality of the performance at the same point in the previous session.
(2) A number of coaches stress the 'nearness' of a specific competition or the beginning of a tapering period.
(3) If the 'crisis' arose within 2/3 weeks of a competition.
(4) Two respondents noted that cycles could not be delayed for individuals because of the 'squad' operation.

TABLE 7A Coaching Process - Monitoring - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Planning Base	Syst. + Int.										
<u>Potential Assess.</u>											
Constantly	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES
Training Session	NO	YES	(2)	NO	NO	YES	YES	NO	NO	NO	YES
Competition	YES	NO	YES	YES	YES						
Cycle	YES	YES	YES	YES	YES	NO	YES	NO	YES	YES	YES
Gap Between	NEED TO	LEAVE AS	INTUITION	VERY	SIGNIF-	-	NOT MUCH	N/A	KEEP	QUITE A	SIGNIF-
Potential and	BE	LONG AS	WHEN NOT	SMALL	ICANTLY				GOING	LOT	ICANTLY
Expected	SIGNIF-	POSSIBLE	ACHIEVE-	DIFFERING					UNTIL NOT		
	ICANTLY		ABLE						POSSIBLE		
<u>Monitoring Criteria</u>											
Training Targets	YES	NO	YES	YES							
Competition Targets	YES	NO	YES	YES	YES						
Athlete	YES	NO	YES	NO	YES						
Satisfaction											
Objective Tests	YES	NO	YES	YES	YES						
Medical Condition	YES	YES	YES	NO	YES	YES	NO	YES	NO	YES	YES
Programme	YES	NO	YES	YES							
Completion											

Notes:(1) Refers to 'systematic principles' and 'intuition'.

(2) A number of coaches stressed the 'nearness' of specific competitions or the beginning of a tapering period.

TABLE 7B Coaching Process - Monitoring - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Presence at Training Episode	95%	100%	100%	100%	99%	100%	100%	100%	80%	100%	100%
Vary Throughout Season	-	N/A	N/A	N/A	NO	N/A	N/A	N/A	WORK COMMITS	N/A	N/A
Athletes Train on Own	YES	YES	YES	NO	YES	NO	YES	YES	YES	YES	-
Directed and Planned by Coach	YES	YES	YES	NO	NO	NO	YES	YES	YES	YES	-
Monitored Closely	YES	SOME-TIMES	YES	NO	NO	NO	YES	YES	NO	YES	-
Assistant Coach	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO	YES
Physiotherapist	NO	YES	NO	NO	NO	NO	NO	YES	NO	OCCAS	NO
Sports Psychology	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Any Involved in Planning	ASS.CO	ASS.CO	ASS.CO	NO	ASS.CO	ASS.CO	ASS.CO	ASS.CO	NO	NO	NO
Actively Involved in Competition	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
Coach Evaluation of own Performance	N/A	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A
Decision on Strategy for Race	DAYS WEEKS	WHEN SEE PROG.	WEEK LEADING TO COMP.	BEGIN OF YEAR	ON DAY 2 WEEKS	3/4 WEEKS	THRO'OT SEASON	THRO'OT TAPER	DAYS OR MORNING	COUPLE OF DAYS	WEEK SOONER IF MAJOR
Attendance at Competition	95%	100%	100%	100%	90%	100%	100%	90%	90%	ALL DIST.	100%
Specified Comp. Targets	NO	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES
Recording Notes	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
Video	NO	NO	NO	SOME	NO	NO	SOME	SOME	NO	SOME	NO
Stat. Analysis	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Records Retained in Systematic Form	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES

TABLE 8 Coaching Process - Direct Intervention - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Years with Squad	2	10	14	14	10	10	4	34	4	14	5
<u>Indirect Resp.</u>	YES	NO	YES	NO	YES	NO	NO	YES	YES	NO	YES
Too Time Consuming	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Supportive Process	YES	SOME	NO	NO	NO	NO	NO	NO	YES	NO	YES
Restricts Work with Athlete Manager	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
Sufficiently Individualised	NO	BETTER	TOP-YES	NO	NO	YES	YES	YES	NO	NO	YES

Notes: 1 Respondent is full time Swimming Development Officer and has responsibility for administration.

TABLE 9 Coaching Process - Model Application - Swimming

Respondent

A	'boring', 'mainstream', 'not big stick approach', 'probably not as autocratic as should be', 'athlete set own standards'. 'individual principles coordinated in particular way'.
B	'Done a lot of lactate testing'.
C	'Intuitive coaching', 'out on a limb', 'have to be technically sound'.
D	'Coaching in specialised events' (result of previous personal experience), 'strong emphasis on preparation and planning'.
E	'Enthusiastic', 'technical development', 'try to get autonomy in performance'.
F	'Leadership qualities - inspiration, motivation', 'autocratic' 'no technique work'.
G	'balanced process', 'applying principles on full time basis'.
H	'Highly didactic', 'athlete self-development based - encourage interpersonal skills and expression of feelings, anxiety', 'look at optimum development given all influencing variables (technique social, commitment goals)'. Swimming philosophy - high technical quality, peak experience search.
I	-
J	-
PILOT	'Social involvement with Swimmers', 'interest in swimmers' "outside" factors'.

TABLE 10 Coaching Process - Individuality of Process - Swimming

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Negotiation	5	2	5	8	5	10	10	10	8	5	9
Agreement on Working Practice	9	5	10	10	10	10	10	8	9	8	8
Introductory Phase	10	8	5	6	7	10	10	10	9	8	8
Identifying Athletes Wishes	9	8	10	8	10	10	8	9	8	9	10
Analysis of Reaching Objectives	8	8	10	10	6	10	10	8	8	10	10
Accommodating Coach Ambitions	4	4	5	8	1	10	8	1	8	3	3
Devising Comp. Programme	10	8	10	10	10	10	10	10	7	10	10
Situational Analysis	8	8	9	8	8	10	10	5	7	10	8
Devising Content and Workload	8	9	10	9	10	10	9	10	7	10	10
Extrapolating into Schedules	8	9	10	8	10	10	9	8	6	9	10
Devising Unit Plans Using Feedback	8	8	10	10	10	10	10	9	8	10	10
10	8	10	7	10	8	9	6	8	10	10	
<u>Feedback</u>											
Schedule Compl.	7	3	5	7	8	10	8	8	5	7	6
Athlete Response	9	10	10	8	10	10	8	6	7	7	7
Performance Outcome	9	7	10	10	10	10	10	6	7	10	5
Continual Comparison to Perform Potential	7	5	10	8	8	10	8	2	8	10	7
Management of Units	9	7	8	10	10	10	10	4	8	9	8
Recording Unit Progress	6	7	8	8	8	5	9	6	6	8	8
Objective Testing	6	8	10	7	10	5	10	6	7	10	8
Coaches' Directive Behav.	9	7	10	10	10	10	10	9	8	10	5
<u>Unit Plans</u>											
Exactly	6	1	8	10	7	10	8	3	5	10	8
As a guide	3	5	4	0	4	0	10	9	8	1	3
Interpersonal Relationships	10	9	10	8	8	7	8	9	8	10	9
Contingency Planning	9	9	7	7	5	5	7	8	5	10	8
Administrative Matters - Athlete	4	7	9	7	6	7	8	3	5	8	8

TABLE 11A Coach Opinion on Process Elements - Swimming (Scoring 0-10)

RESPONDENT	A	B	C	D	E	F	G	H	I	J	PILOT
Rehearsal of Strategy	8	6	10	6	10	10	10	9	8	10	9
Being Present	6	7	10	10	5	10	8	9	9	1	8
Pre-Start Check List	8	8	10	10	8	10	10	8	7	5	7
Recording Performance	9	8	10	10	5	10	8	9	9	10	8
Competition Role	9	7	10	10	5	10	8	10	8	5	7
Counselling Athlete	8	7	10	8	7	10	8	9	7	8	8
<u>Attending to:</u>											
Finance	3	7	4	6	6	5	10	1	3	8	6
Equipment	2	6	7	5	6	10	5	1	3	6	5
Facilities	6	9	10	9	6	10	8	1	3	8	5
Transport	0	5	4	5	3	10	5	1	3	7	4
Relationships with Agencies	8	7	8	7	8	8	8	4	7	8	5
Availability of Support Staff	10	10	8	9	10	10	8	1	7	8	7
Medical Staff	6	7	9	2	2	5	5	1	6	8	5
Sport Psychology	6	3	8	2	2	5	5	1	5	8	9
Manager	9	6	6	-	10	7	5	6	10	5	5
Awareness of Cont.Develops.	10	7	10	5	10	10	5	9	8	10	8

TABLE 11B Coach Opinion on Process Elements - Swimming (Scoring 0-10)

A summary of responses by volleyball coaches to the project questionnaire and an assessment of the aptness of the ideal-type model for describing and understanding their behaviours

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The purpose of this study was to assess the validity of an ideal-type model of a structured questionnaire designed to measure coaching behaviours. The questionnaire has previously been used with women's coaches in some sports and was adapted for the volleyball context. The questionnaire was administered to 10 male coaches, a further 10 coaches, eight men's teams and a further one who was a Division 1 women's national squad. A further two coaches in charge of coaching women's teams. All coaches had coached in the English Volleyball Association (EVA) first division teams and/or played in clubs. The results are presented in Tables 8.1-8.5 at the end of this chapter. The focus of this review is on

the comparison of the results of the questionnaire with the ideal-type model.

CHAPTER EIGHT

A SUMMARY OF RESPONSES BY VOLLEYBALL COACHES TO THE PROJECT QUESTIONNAIRE AND AN ASSESSMENT OF THE APTNESS OF THE IDEAL MODEL FOR DESCRIBING AND UNDERSTANDING THEIR BEHAVIOURS

INTRODUCTION

8.1 Interviews were conducted with 10 very experienced volleyball coaches. The principal methodology employed was the completion by the interviewer of a structured questionnaire/check-list. The questionnaire had previously been used with swimming coaches. Some terminology changes were employed for the volleyball coaches - the use of the words team and player. The data was obtained from 10 male coaches, although two of these coached women's teams and a further one was a national squad coach for the women's national squad. A further two coaches had had experience of coaching women's teams. All coaches had coached Scottish Volleyball Association (SVA) first division teams and/or players of national team status. The results are presented in Tables 12-22 which follow the text of this chapter. The form of this review is as follows. There is a summary of the results themselves, with an assessment of the particular implications for those core elements of the model. Following this there is a summary evaluation of the extent to which the coaches claim to be engaged in the core elements of the ideal-type model.

STRUCTURAL DATA ORGANISATION/PERSONAL (TABLE 12)

8.2 The volleyball coaches in the sample were experienced coaches. There was an average age of 37 years with little variation. Although there were two coaches who had become non-playing coaches only in the previous two years, the average number of years of coaching experience was 10.8 years. Seven of the 10 coaches were Scottish Volleyball Association Staff Coaches or Staff Tutors, reflecting on their experience and maturity. The coaches all operated through clubs. This is hardly surprising given the nature of the sport and its competition structures. The nature of the involvement is very much part-time. All individuals were in employment, with a very high percentage of Physical Education teachers (60%). This is reflective of the principal avenue of transmission which, for youngsters, is through the schools. The typical age range of the players was 18-30 and most were in higher education or employed.

8.3 All coaches were former players, two of whom were players of considerable international standing. The problem of recruitment is one, initially, of assuming responsibility for the direction of a team from within. This is determined by a combination of motivation, technical knowledge, experience and perceived leadership qualities. Thereafter coaches may move between clubs although this is likely to be a result of personal circumstances (change of job) rather than contractual arrangement.

8.4 The very part-time nature of the involvement is reflected in the absence of remuneration. Only three coaches received honoraria. In general, coaches were committed to two training sessions per week with the team and at least one competition/match per week. This would equate to four

hours preparation with the team, although it will be noted later that individual players do additional training. Coaches were in direct contact with their teams for an average of 40 weeks in the year. The experienced nature of the coaches is further reflected in the high percentage who are involved with SVA national squads. This can result in a further 20-25 training days throughout the season.

LIMITATIONS TO THE IMPLEMENTATION OF THE IDEAL MODEL (TABLE 13)

8.5 Coaches were asked to give a numerical score to factors which influence their capacity for implementing the ideal coaching process (see Table 13). In addition to the factors listed in the questionnaire, coaches were given the opportunity to suggest further limitations. The additional factors identified were as follows:

- Coach A - the status of sport in general, the low status of coaches
- Coach B - the availability of sufficient players, the restrictions of being a player/coach
- Coach C - information dissemination from the National Governing Body (NGB)
- Coach D - assessment of coaching quality by external source
- Coach F - "attitude of the Governing Body borders on the negative towards good teams wishing to progress"
- Coach I - Access to testing equipment, access to personnel for testing, variation within the term as to individual commitment, differential ability between teams in competition, insufficient players available at suitable standard.

These responses were sought as constraints likely to be to the forefront of the coaches' conscious deliberations about the coaching process. Opportunity had already been given to comment on the NGB and the availability of equipment. However, the elaboration was valuable. The remainder of the comments are most easily divided into two categories. The first concerns factors external to the process, that is availability of players, status, effect of National Teams. The second concerns factors internal to the process, that is being a player-coach and variations on commitment within the team.

8.6 The factors rated most restrictive can be seen to be inter-related. The availability of facilities, the hours available for preparation, finance, athlete commitment and the athletes' social and educational circumstances all combine to limit the very scope and scale of the process itself. Further investigation is required into the degree to which rewards available to the participant are reflected in the commitment given. It seems likely that this will be reflected in the development of the sport as a whole, and therefore in the scale of club structures and finance and the consequent working and contractual arrangements within which the coach operates. A comparison may be drawn between the club organisation and scale of development in Scotland and the well-developed structures in Italy and Holland where players are full-time or part-time professionals. Player commitment is consequently greater and organisational infrastructures are developed to match this.

8.7 Very low scores were given to the three coach related items, for example, forecasting potential, experience and knowledge skills. Other items did not receive extreme scores. In general the scores were low. This appears to have been a reflection of restricted perspective rather than an

acknowledgement that the processes engaged in are not limited. Thus the responses are to be considered in the context of the existing part-time, and somewhat limited, involvement of the coaches. The low scores appear to have been attributed within present goals.

8.8 In summary the total commitment implied by the existing processes is limited and this is reflected in the coaches' preoccupation with boundary markers. Operational matters are not at the level at which they become restrictive. Coaches clearly do not consider that their capacities are restricting the process, the level and scope of which the sport will not yet bear.

SIGNIFICANCE OF PROCESS COMPONENTS IN PRACTICE (TABLES 14 A AND B)

8.9 Coaches were asked to rate on a scale of 1 - 5 the extent to which key variables of the model were perceived to be significant in the coach's coaching practice. Those components receiving the highest scores were technique development and tactical development. There was a gap in scoring, to be followed by physical conditioning, practice management, competition management and planning. Low scores were given to objective testing, monitoring social relationships and goal setting. It is not surprising that technique and tactical development should rate so highly. This reflects the nature of a team, ball game. Similarly, the recognition given to practice management and competition management is not surprising. It is significant, however, that the lowest scoring items involve the operation of the process in its detail.

8.10 At the same time coaches were asked to rank the components in terms of emphasis in time and effort. Not surprisingly, the rankings reflect the earlier scores. Psychological preparation was perceived by coaches to be closely related to social relationships between coach and athlete and between athletes. This is a recognition of the place of team cohesion in performance. Comment was also made on the importance of the competition management element. However, the comparatively low scores reflected the lesser amounts of time and effort it required. Most importantly, several coaches reported a significant difference within the team in the way that players were treated. The generalised scores of the coach may be masking considerable variation in treatment given to individuals. It must be recognised however that these are very crude measures with which to discuss the processes themselves. Broad component terminology used to identify key variables such as was used here is for the purpose of prioritising and ranking. More detailed questions in later tables will provide process related feedback on the particular behaviour of the coaches. Key variables were rated highly by the coaches with the rankings reflecting the technical and tactical nature of the volleyball performance itself.

PROCESS BOUNDARIES (TABLE 15)

8.11 Coaches reported that it was not the general practice to have written agreements with the players. There was some informal discussion over conditions of service but only those coaches receiving honoraria noted this. Nevertheless, several coaches mentioned an 'understanding' with players as to their mutual expectations.

8.12 Very much the greatest number of players emerged through the internal club system. However, players do approach the coach/team and coaches acknowledged that they had approached players. When players were joining a team whether through the club system or from outwith the club, all coaches reported employing a review process before accepting a player into their squad. This is not surprising in view of the importance of interpersonal relationships, the specialities of team positions and the desire for a uniformity of players standards. Coaches' reviews were not superficial or cursory but they often relied on the previous and proven ability already displayed by the player.

8.13 The responses of the coaches indicate that the initiation stage of the process is not characterised by a systematic approach. However the coming together of players and coaches is not entirely accidental. A large number of changes in personnel occurs each year and there appears to be a gradual movement of better quality players to a small number of already established and successful clubs. Nevertheless, much depends on the feeder system and several coaches commented on the importance of this. The general lack of systemisation seems to reflect the absence of organisational formality. Coaches are operating within a climate of unspoken expectations and moral obligations.

GOAL SETTING (TABLE 16)

8.14 This section of the questionnaire examined both the process and the product of goal setting. Coaches reported that the process was both unsystematic and very largely unrecorded. Team goals were identified but very rarely in writing. The process itself was not recorded. Most coaches, however, reported that they identified a formal occasion when

goal setting took place. Nevertheless, the goal-setting process itself appears to be coach-directed, generalised and more aptly described as a series of agreed expectations. Most coaches reported that they had short term goals but very few had these in writing. Even fewer had medium term goals and very few had long term goals. This would appear to be a function of a lack of knowledge on goal setting and planning and a recognition of the likelihood of changed and changing circumstances.

8.15 Coaches responded that they identified value in the factors employed in determining appropriate goals. However, it is very important to note that seven of the ten coaches did not have individualised goals. Coaches responded that they did have sufficient data for goal setting purposes but the limited nature of their implementation of the process should be borne in mind. There is little evidence of a systematic operation in linking the products of goal setting to the planning process. Very little of the process is committed to writing. Only two coaches identified training targets, although many acknowledged that competition targets were used. Competition results were the most often used targets. Although the goals may have been tacitly shared expectations rather than formally recorded ones, most coaches declared that they had influenced athletes towards non-performance goals. These included:

- attitudes to training
- individual responsibilities for team functioning
- communication skills
- social goals
- warming up
- leadership qualities

8.16 In summary, the necessity for the team to have a set of realistic expectations of the season can be identified in the coaches responses. The coach takes an influential role in determining this. One coach noted that he tried to "take the athletes with him". Coach G devised the goals and "okayed these with the players". In essence, these team expectations are based on competition success and the setting of realistic targets. However, the stage beyond this does not seem to be very systematic. The analysis of the requirements for achieving the team goals, particularly the implications for individuals, is not translated into operational targets which might form the basis for planning. The process of goal setting is a dynamic one. Particularly in a team situation, and with existing and known opposition, it is difficult to identify a reason or explanation for the relative inattention to detailed goal setting. It may be advantageous for the coach to have generalised expectations but these are less than useful for detailed planning and monitoring. The benefits to be obtained despite the inherent difficulty in characterising and measuring team performance may have to be balanced against the absence of performance monitoring data for the individual.

OPERATIONAL PLANNING (TABLE 17)

8.17 With one exception, coaches reported that they did not employ a pre-planning model, and more than half of the coaches had detailed schedules for no more than one week. Loadings were not specified for the season and not, therefore, translated into detailed scheduling. One of the two to identify such intensities said that these were "way out in practice". The other coach used only generalised indications in a bar chart. Drills and exercises were devised using established sources and experiences. Testing was not a feature of this process. Most coaches had a

predetermined and written training plan although only half indicated that adequate records were kept. It was very significant that only 4 coaches responded positively to the question on the identification of workload factors for drills and exercises. Coach I said that "the number of reps is intuitive".

8.18 Data from the previous table had indicated that periodisation took place in only very general outline, and normally in the thought processes of the coach. However, two coaches demonstrated that they were aware of the changing workloads in each cycle. One said that he "stepped up workloads in important phases of the season". The second declared that "intensity levels (were) identified for major cycles but not written down". Operational planning for coaches was a mental exercise, and, given the complexity of the possible variables, cannot be said to be carried out in a systematic fashion. However, it is worth pointing out that the context of the sport may influence the planning process. The major competition is the league programme. This not only provides the principal competition cycles but because of the creation of 'difficult' and 'easy' matches, creates a series of minor cycles. The very nature of the 'league' programme and the dynamic of the unfolding results pattern allows for the possibility of a constantly evolving goal achievement situation. This contrasts very sharply with the relatively long 'run in' periods of the target sports. It was noteworthy that several coaches drew a distinction between their preparation in the pre-season period and during the competition cycles.

8.19 What kind of planning is actually being employed? It would appear that the broad parameters within which preparation will take place are established by the coach. Using these the coach identifies guidelines in a more or less exact fashion and these form the basis of the training session

plan. The guidelines are applied in an intuitive way. Physical conditioning may be planned fairly systematically, but to determine exact workloads for technical and, particularly, tactical drills may be failing to recognise the complexity of the performance and the coach's difficulty in applying exact intensities and loadings. In the context of an evaluation of the aptness of the coaching process model, it is worth considering that training theory principles, many of which will have underpinned the questions in this checklist, have been employed more extensively and with greater sensitivity to target sports and to those with a high physical component.

MONITORING (TABLE 18)

8.20 The self-reported monitoring of the team's progress by the coaches was not carried out in a measurable, objective manner. Three criteria were identified - results of matches, a subjective comparison to previous performance, and an intuitive sense of what is possible or expected. This latter criterion is held as an image of performance. One coach commented on it being "a model of how they could play". These criteria are largely coach originated and susceptible to interpretation. Only two coaches mentioned the monitoring of the individuals' contribution to the team performance.

8.21 There were two sets of responses to the problem of non-achievement of training targets. Firstly, there were those factors which were being improved over a longer period of time. Coaches responded that if these were part of the player's education, were complex or were a minor part of the performance, they would allow a long time-span for success to be achieved. There were other features on which immediate action would

follow. It has to be noted, however, that non-achievement is not measurable in most instances and training targets have rarely been designated in this way. Furthermore, non-achievement does not imply that the skill involved cannot be used in competition, merely that the scope of its potential contribution to performance is more limited. Coaches did say that they would redo training goals and alter performance expectations if appropriate. Coaches were conscious of employing feedback from unit to unit and from week to week but rarely beyond this immediacy. One coach commented that decisions were based on a "gut feeling". Feedback into performance expectations is very centrally concerned with the weekly match performance and result. A threshold concept appears to apply here. The level of the opposition is important and responding to a poor performance is more significant - "particularly after a bad game".

8.22 One of the questions explores the coaches' monitoring of the teams' potential performance and on their reaction to differences between expected and potential. The coaches' responses have to be evaluated against the context of weekly matches. In other words, the teams' performance expectations may not be the result of a cumulative series of training cycles. It is conceivable that the teams' most important matches of a season are just a few weeks into the programme. The teams' performance potential was universally monitored after competition and at significant points in the season, for example the mid-season break. However, all coaches were sensitive to a constant awareness of the teams' potential performance. Coach H said of this, "(you are) crazy if you don't, (you) can't ignore the messages in front of you". The general reaction to a divergence between the expected and the potential was that the difference would have to be considerable before the coaches'

expectations were altered. Phrases such as "have to be very significant", "pretty far off course", and until manifestly obvious" characterised the coaches' attempts to "hold on to expectations". One coach said "if two games in a row didn't make the potential image, (I'd) do something different". Coaches reported that the usual reaction was to call a team meeting, to reassert team goals, to amplify targets and to embark anew on a course for the previous performance expectation.

8.23 General progress was being monitored by coaches via competition targets but some coaches also noted athlete satisfaction as a criterion. There was a low response to other factors such as medical condition and objective testing. Simply completing the programme did not find universal support - "(it) doesn't count if (you) just go through it". Coaches were more aware of important matches. In all cases these were defined as matches against teams of near comparable standard.

8.24 In summary, the self-reported data point to a day-to-day implementation of the coaching process which relies very much more on subjective interpretation by the coach than on the systematic application of process variables. It is clear that coaches are engaged in a monitoring of their work and of the progress of the team. The influence of the league programme and the regularity of the pattern of training (on the same nights each week) can be felt in the way the weekly performance is used to gauge progress. For the greater part of the time, coaches report employing criteria in an intuitive way - usually against an image of potential and expected performance. The coach operating in this way should be seen against a team sport performance which, because of the variables involved, is very difficult to measure. The significant number

of coaches who use match statistics is evidence of an attempt to objectify the performance analysis.

DIRECT INTERVENTION (TABLE 19)

8.25 There is a fairly uniform pattern of direct intervention. Coaches are almost always present at training sessions and competitions. No assistants are involved. All coaches reported that athletes from their teams trained on their own in addition to the team sessions: this was not the case for all athletes, however. Only 6 coaches said that this was planned and directed by them and only 3 monitored it closely. Essentially, the additional training consisted of a physical conditioning programme.

8.26 Coaches were all involved in competition, as allowed by the rules of the sport. On all occasions, coaches reported that they determined the game plan or 'way' of playing before the competition. It was very rare for this to be in terms of quantifiable targets. The strategy for matches was generally devised within one week of the match itself. There was some recognition of a longer time scale for significant matches. The overall league strategy was determined before the season commenced and was closely related to goals/result expectations. Some coaches had medium to long term goals which involved competition strategy over 2-3 years.

8.27 All coaches reported that it was their usual practice to take notes during and after matches. There was little video recording but more use of match statistics for later analysis. When these were used, it tended not to be in a systematic manner, only to reinforce the coach's perceptions. Only 4 coaches reported retaining their records in a systematic and accessible

form. Coaches reported that they evaluated their performances during competition (and later tables will demonstrate this). This tended to be at the level of critical incidents or general awareness - "not as a matter of course, in my quieter moments".

8.28 A predetermined training unit plan was available for the vast majority of sessions, although it was very rare for this to be followed exactly. All coaches recognised the need to employ contingency planning. When asked to identify the factors which would result in altered plans, the most common response was the absence of players. Other factors were the quality of the work, injury, player reaction to previous loadings, employment or National teams, the atmosphere or attitude prevalent and the influence of results. In one particular case, the coach combined his role with that of player. Interestingly, this team videoed all home matches for later analysis.

INDIRECT RESPONSIBILITIES (TABLE 20)

8.29 In general there was support by the coaches for the notion that indirect responsibilities were supportive of the direct process with the athletes. Coaches did not think that it restricted their work with the players. Perhaps not surprisingly, given earlier descriptions of working practices, it was felt by the coaches that the process was not sufficiently individualised. Within their club organisation, coaches tended not to have the assistance of a designated manager. In many cases, coaches took responsibility for most of the decisions affecting the team but the operationalisation of those decisions was delegated to others. Thus, there were players with specific responsibilities, the captain's duties assisted,

there were club secretaries/administrators and team match secretaries. In most cases, all of these additional roles were filled by players.

COACHING PHILOSOPHY (TABLE 21)

8.30 Philosophies were not easily identified and not easily verbalised and few coaches reported that they differed markedly from mainstream opinion. There was a large degree of variety in the responses but they can be categorised into two main groups. Firstly there were comments which could be characterised as person-centred. Phrases used by this group included:

- "players have their own styles".
- "players take responsibility for their own learning".
- "interpersonal relationships are important".
- "winning is not the be-all and end-all".

However, there was a second group which stressed the centrality of the coaching role. Words used included discipline, organisation, leadership, autocratic and central figure. It is worthy of note that the coaches were not working with young people in their club setting (although many did in their professional teaching roles). As First Division coaches, their players ranged from 17 to 30+ with the median in the 20-25 age range.

OPINIONS RATINGS OF PROCESS ELEMENTS (TABLE 11)

8.31 In previous questions coaches had been asked about their current practice and the extent to which they engaged in some of the core elements of the process identified in the ideal-type model. In this instance, coaches had

been asked for their opinions as to the relative importance of the process elements identified. Coaches were given the opportunity to score from 0 to 10 on their estimation of the item's importance and particular importance was paid to those elements of the process which had scored 8.0 or above. The initiation process was considered important by the coaches. Agreement on working practices was rated highly, a feature which may reflect the conditions necessary for working in a team sport. Goal setting received moderate ratings in comparison to other items.

8.32 Planning items received high scores, from the coaches particularly the devising of unit plans. Although the devising of a competition programme received a rather lower score, the establishment of the league programme and national cup programme in advance make much of this operation unnecessary. The feedback criterion regarded most highly by the volleyball coaches was the quality of the performance. A similarly high score was accorded to the management of the training unit. As might be expected from the comments of the coaches, in response to earlier questions, the coaches' directive behaviour was rated highly. However, the notion of attention to interpersonal relationships was recognised to be important. This is perhaps a recognition of the necessity for paying attention to team cohesion and cooperative behaviour.

8.33 Given the unsystematic nature of much of the volleyball coaches' work, it is not surprising that low scoring was recorded for objective testing, recording of progress and using training plans as definitive guidelines. Much the highest average scoring was afforded to the competition element of the process. Clearly, coaches felt that it was imperative that they were present and the coaches' competition role was similarly given prominence. On the other hand, indirect responsibilities were given

moderate scores by the coaches although equipment and facilities were rated significantly higher. Coaches appeared to consider that all of the indirect responsibilities identified were important but that these matters should not be handled by the coaches themselves. Awareness of contemporary developments, not surprisingly, is considered important.

SUMMARY

8.34 The volleyball coaches who formed the representative panel operated within club structures and had no formal agreements as to their commitment nor responsibilities. The coaches would be present at each team training session and game, although players did other sessions, particularly physical conditioning, on their own or in groups. This was not managed systematically. Coaches recognised the value of a recruitment and initiation process. Each relied on club development and opportunistic acquisitions to the team. Goal setting was recognised to be a necessary step in asserting a common purpose but nothing was recorded and the process was not integrated into a formal planning procedure. The overall determination of coaching inputs is influenced by the seasonal nature of the competitive programme. Thus the general pattern of preparation shows some commonality. Virtually no planning is in recorded form. The day-to-day implementation of the training sessions relies on intuitive contingent application of some general principles. Drills are learned and devised from courses and other coaches. There is no systematic application of loading factors. The match results are the most used performance criterion but there is little if any formal monitoring. The whole process is unsystematic in the sense that there is no evidence of data being used in an organised, rigorous and planned way to inform decision making. Undoubtedly coaches provide overall direction for team

development but this is dependent upon a subjective, intuitive sense of what is required and a rudimentary monitoring of progress. Coaches retain a personal perspective of what is potentially possible and what is expected. Progress is evaluated against this but only in the most general of fashions.

8.35 Although the responses of all coaches will be aggregated, it is possible at this stage to make a number of evaluative comments about the appropriateness of the ideal model for describing and explaining the self-reported behaviour of the volleyball coaches. In summary the ideal-type model failed to a very considerable extent to provide an adequate model of the practice of volleyball coaches. The factors influencing the application of the model to volleyball fail to account for the disparity between the reported behaviour of the coaches and that predicted by the model.

8.36 The coaches identified very clearly a number of factors, for example access to facilities and training time which would limit the extent of the process in which they were engaged. This was reflected in the part-time, approximately 8 hours per week, involvement in the process. When asked to give a rating to key elements of the process, the coaches identified goal setting, planning and testing as low priorities. It is significant that there are process implementation variables. The low scores given to these items are reflected in the coaches' claims to be engaged in the core processes within the model.

8.37 Coaches did not claim to have extensive involvement in initiation, goal setting or objective monitoring. Many of the processes were recorded and not individualised. This was evident in the absence of training targets, failure to plan beyond one week and no systematic monitoring. The lack of

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Age	38	35	32	32	37	35	30	48	44	36
Sex	M	M	M	M	M	M	M	M	M	M
Marital Status	S	M	S	M	M	M	S	M	M	M
Employment Description	PE TEACHER	PE TEACHER	PHOTO- GRAPHER	PE TEACHER	PERSON. MANAGER	LAB. TECH.	PE TEACHER	LECTUR- ER	TECH. OFFICER	PE TEACHER
Level of Coaching Award	FIVB II STAFF COACH	FIVB II STAFF TUTOR	SVA CLUB COACH	SVA CLUB COACH STAFF TUTOR	SVA TEACHER II	SVA TEACHER II	FIVB II STAFF COACH	FIVB II STAFF COACH	FIVB INSTRU. CTOR	STAFF COACH
Athletes	REP	CLUB	REP	RPE	REP ^W	REP	CLUB	REP	REP ^W	REP
No. of Years Coaching	15	13	2	8	14	6	8	17	15	10
Structure	CLUB	CLUB	CLUB	CLUB	CLUB	CLUB	CLUB	CLUB	CLUB	CLUB
Remuneration	VOL	VOL	VOL	VOL	VOL	VOL	VOL	HON	HON	HON
No. of Sessions	2+1	2+1	2/3+1	1+1 option	2+1	2+1	2+1	3+1	2+1	2+1
Average Length (hrs)	2	2	2½	2	2	2½	2	2	1½	2
Attend Competitions	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weeks per Year	30	45	40	52	44	36	39	44	35	38
National Squad Duties	YES	YES	NO	YES	NO	NO	NO	NO	YES	YES
National Sessions/Month	16+2c	20+3c ^W	N/A	20+3c	N/A	N/A	N/A	N/A	30+3c	20+3c

TABLE 12 Demographic/Experiential Data - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
1 Facilities	9	3	7	8	3	2	8	7	8	10
2 Experience	2	3	7	3	3	6	6	3	2	3
3 Finance	5	1	9	8	3	9	9	8	3	3
4 Knowledge/Skills	1	3	7	3	4	6	6	3	2	3
5 Availability of Comps.	7	0	1	1	3	10	1	5	7	0
6 Athletes Commitment	6	7	3	5	4	7	7	7	4	7
7 Hours for Prep./ Training	5	7	8	8	4	7	7	6	3	7
8 Info.from NGB	1	1	8	1	1	9	3	0	0	0
9 Availability of Equipment	3	3	6	9	2	8	1	0	3	0
10 Availability/Commitment of Coach	9	2	1	0	2	4	3	4	3	3
11 Ability to Forecast Potential	1	1	7	1	6	1	6	3	2	2
12 Support Services	7	3	3	3	8	8	3	3	5	5
13 Athletes' Abilities	6	6	6	0	4	4	8	5	7	5
14 Athletes' Social Circumstances	6	7	4	4	5	9	7	7	4	4
15 Absence of object data	5	2	8	1	5	9	7	4	3	3

TABLE 13 Limitations to ideal model - volleyball (scores 0-10)

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Physical Condition	4	4	3	4	4	4	4	4	3	4
Psychological Preparation	3	2	2	5	4	2	2	3	2	3
Technical Development	4	5	4	5	5	4	4	5	4	5
Tactical Development	4	4	4	4	5	4	4	5	5	5
Practice Management	4	4	4	3	5	3	4	3	4	3
Competition Management	3	3	3	5	4	3	4	4	5	3
Goal Setting	4	1	2	4	4	3	2	4	2	4
Planning	4	4	3	2	5	3	3	5	3	3
Prevention of Injury	3	4	1	3	3	2	3	5	4	3
Objective Testing	4	3	1	2	2	2	2	2	1	2
Monitoring Social Relat.	2	2	1	3	4	1	2	3	4	3

TABLE 14A Significance of Process Components in Practice - Volleyball (scores 1-5)

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Written Agreement	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Organisational Basis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	N/A	N/A
Conditions of Service	NO	NO	NO	YES	NO	NO	NO	YES	YES	YES
Coach										
Form of Approach	COACH APPT.	CLUB SYSTEM	CLUB + ATHLETE	CLUB	CLUB	CLUB	CLUB COACH 2	CLUB COACH 1	CLUB ATHLETE	CLUB COACH 1
Analysis before Agreement	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Review (1-5)	2	2	1	4	3	3	2	3	4	3
Written Report	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

TABLE 15 Coaching Process - Boundaries - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Written Record	NO	NO	NO	YES	NO	NO	NO	ONLY	NO	NO
Short Term Goals	YES	NO	YES	YES	YES	YES	NO	YES	YES	YES
Medium Term	NO	NO	YES	YES	YES	YES	NO	YES	YES	NO
Long Term	NO	NO	NO	YES	YES	NO	NO	YES	NO	NO
Outline Periodisation	NO	YES	YES	NO	NO	YES	YES	YES	NO	YES
Program 4-6 Weeks	NO	NO	PRE-COMP.	YES	NO	YES	YES	YES	YES	YES
Detailed Schedule 1 Week	YES	NO	NO	YES	YES	YES	YES	YES	NO	YES
Formal Occasion	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
Informal Approach	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NO	YES
Process:									YES	N/A
Coaches Ambitions	YES	YES	YES	NO	YES	NO	YES	YES	NO	YES
Evaluation of Potential	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Club/Team Goals	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Social/Educ. Circumstances	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
Athletes Wishes	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sufficient Data Available	YES	NO	YES	YES	YES	NO	NO	YES	YES	YES
Identified										
No. of Hours	YES	YES	NO	YES	YES	NO	YES	YES	YES	YES
Training Targets	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES
Competition Targets	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Competition Results	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Non-Performance Goals	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Team Goals	*	*	*	*	*	*	*	*	*	*
Individual Goals										

TABLE 16 Coaching Process - Goal Setting - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Pre-Planning Model	NO	NO	NO	NO	NO	NO	-	YES	NO	NO
How Many Weeks Detailed	1	2 nw	non	2	1-5	4	1	3	non	1
Graphical	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES
Loading For Season	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES
<u>Drills:</u>										
Established	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Experience	YES	YES	NO	YES						
First Principles	NO	NO	NO	YES	NO	NO	NO	NO	YES	-
Testing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Previous Planning	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Written Episode	YES	NO	YES	YES	NO	YES	YES	YES	YES	YES
Written Record	YES	YES	NO	NO	NO	YES	NO	YES	YES	NO
Workload Factors	YES	NO	NO	YES	NO	NO	YES	YES	NO	NO

TABLE 17 Coaching Process- Operational Planning - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
	Results of matches	Subjective same time last season	Past perf.	Ability vs whats poss.	Coach's sense	Coach's visual image: weekly	Image observ stats.	Results quality process	Coach estim. of potent.	Model of how could play
Progress Monitor	Educ.- wait	Major- 2 games	Short as poss	2 weeks	if criti- cal const- ant attent	3 train- ing session	1 season	1 seasons	Tech. short	Immed.
Non Achievement in Training										
<u>Outcome:</u>										
Delay Period	YES	NO	NO	-	N/A	NO	YES	YES	YES	YES
Alter Performance Expectations	YES	NO	NO	YES	MAYBE	YES	YES	YES	YES	YES
Redo Training Goals	YES	NO	YES	NO	YES	YES	YES	YES	COACH	YES
<u>Feedback</u>										
Unit-Unit	NO	YES	NO	YES	YES	YES	YES	YES	YES	NO
Week-Week	NO	YES	YES/N/A	YES	YES	YES	YES	YES	NO	YES
4/6 - 4/6	NO	NO	NO	N/A	NO	NO	NO	YES	YES	NO
Period-Period	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO
Unit-Performance Expectation	NO	NO	NO	YES	NO	NO	YES	NO	YES	NO
Week-Perf.Ex.	NO	YES	NO	YES	YES	NO	YES	YES	NO	YES
4/6 - Perf.Ex.	NO	NO	NO	YES	YES	YES	NO	YES	NO	YES
Period-Perf.Ex	NO	NO	NO	-	NO	YES	YES	YES	NO	NO

TABLE 18A Coaching Process - Monitoring - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT
<u>Planning Base</u>	YES YES YES	NO NO NO	NO NO YES	YES YES YES	AWARE NO YES	SUBC. NO YES	NO NO NO	YES YES YES	YES YES YES	YES YES YES
<u>Potential Assessment</u>	TRY TO HOLD ON	-	IF 2 GAMES DONT MATCH IMAGE- CHANGE	LEAVE: TEAM MEETING KEEP IF POSS.	-	HAVE TO BE VERY SIGNIF.	PRETTY FAR OFF COURSE	UNTIL MANIFE- STLY OBVIOUS	ONE SESSION	IF CRITIC. OR BAD RESULT CRISIS MEETING
<u>Monitoring Criteria</u>	NO	NO	NO	YES	NO	NO	YES	YES	YES	NO
<u>Training Targets</u>	YES	YES	YES	YES	YES	YES	YES	YES	YES	PART
<u>Competition Targets</u>	NO	YES	YES	YES	YES	NO	NO	YES	YES	PART
<u>Athlete Satisfaction</u>	NO	YES	NO	NO	NO	YES	NO	NO	STATS	NO
<u>Objective Tests</u>	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO
<u>Medical Condition</u>	NO	NO	YES	YES	NO	YES	NO	NO	NO	NO
<u>Programme Completion</u>	NO	NO	YES	YES	NO	YES	NO	NO	NO	NO

Notes: (1) Refers to 'systematic principles' and 'intuition'

TABLE 18B Coaching Process - Monitoring - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Presence at training Vary Throughout Season Athlete Train on Own	90% N/A YES	95% N/A YES PHYS	100% N/A YES	100% N/A YES	100% N/A YES	100% N/A YES	100% N/A YES	100% N/A YES	90% N/A YES	100% N/A YES
Directed and Planned by Coach	NO	YES	YES	YES	NO	NO	YES	YES	NO	SOME YES
Monitored Closely	NO	YES	NO	YES	NO	NO	NO	YES	NO	NO
Assistant Coach	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Physiotherapist	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO
Sports Psychologist	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Any Involvement in Planning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PHYSIO	N/A	N/A
Actively Involved in Competition	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Coach Evaluation of own Performance	YES	YES	YES	YES	-	YES	YES	YES	YES	YES
When Strategy For Comp.	1 WEEK	1 WEEK	LAST SESS.	1 WEEK LONGER FOR BIG GAME	5/6 WKS CRITIC. MATCHES	1W NORM LONGER FOR IMPORT. MATCHES	BETWEEN SESSION & MATCH	1 WEEK	DEPENDS ON MATCH	1 WEEK
Attendance at Competition Specified Comp. Targets	90% YES	100% YES	100% YES	100% YES	100% YES	100% YES	100% YES	95% YES	95% YES	100% YES
Recording:										
Notes	YES	PLAYER COACH	NO	YES	YES	YES	YES	YES	YES	YES
Video	NO	HOME GAMES	NO	NO	NO	NO	NO	FEW	NO	NO
Stat. Analysis	YES	FROM ABOVE	NO	YES	LIMITED	NO	YES	YES	SOME-TIMES	SOME-TIMES
Retained in Systematic Form Predetermined Plan	NO YES	NO YES	NO MOST	YES YES	NO YES	NO YES	YES YES	YES YES	NO YES	YES YES
Factors for Change of Plan	QUALITY OF WORK	PERSON-NEL	PERSON-NEL - QUALITY OF WORK	INJURY - PREV. REACT.	PERSON-NEL - ATTITUDE	PERSON-NEL - READINESS	PERSON-FACIL. ATMOS.	PERSON. RESULT ON SAT.	PERSON. INJURY QUALITY OF WORK	PERSON. LACK OF TIME PLAYER REACT.

TABLE 19 Coaching Process - Direct Intervention - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Years with Squad	1	11	2	4	2	6	1	5	7	2
<u>Indirect</u>										
Too Time Consuming	YES	NO	YES	NO	NO	YES	NO	YES	YES	NO
Supportive Process	YES	YES	YES	YES	YES	NO	YES	YES	NO	YES
Restricts Work with Athletes	YES	NOT RLY	NO	NO	NO	YES	NO	NO	NO	NO
Manager	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO
Sufficiently Individualised	NO	NO	NO	YES	NO	YES	NO	NO	NO	NO

TABLE 20 Coaching Process - Model Application - Volleyball

...realization that coach has of the player in t
...player takes responsibility for his/her own
...player must communicate clearly with others
...team unit.

...more emphasis on best individual use of playe
...in team'. 'Better preparation for individual

...attention to technical detail'.
...practice ideas'.

...ing is not the head and end-all'.
...istic about possibilities'.

...ing Process - Individuality of Process - Vol

RESPONDENT

A	'Organisation, discipline, quality in approach'. 'Desire to be professional looking'. 'Emphasis in technical/physical more than most'.
B	'Intensive, disciplined (like teaching)'. 'Disciplined finish'. 'I ask questions'.
C	-
D	'Optimistic, committed'. 'Enjoy everything about the process - enormous kick out of it'. 'Very autocratic'.
E	'Emphasis on modelling'. 'Encourages individuality and flair in achieving results'.
F	'Belief that players have their own personality/style of doing things'. 'Scottish mentality is a relevant factor in coaching'.
G	'Increasing use of statistics/scoresheet information'. 'Coach as a central figure'. 'Bit of a bastard!'. 'Players will not set high enough standards if leave them to make decisions!'.
H	'The interpersonal relationships with the individuals within the teams and the preparation and planning of the years programme'.
I	<p>a 'Expectation that coach has of the player in training - player takes responsibility for his/her own learning. Player must communicate clearly with others to create team unit'.</p> <p>b 'More emphasis on best individual use of players within the team!'. 'Better preparation for individual matches'.</p> <p>c 'Attention to technical detail'. 'Up-to-date ideas'.</p>
J	'Winning is not the be-all and end-all'. 'Realistic about possibilities'.

TABLE 21 Coaching Process - Individuality of Process - Volleyball

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Negotiation	9	3	6	10	8	7	9	6	6	10
Agreement on Working Practice	10	6	9	10	8	5	10	8	8	8
Introductory Phase	9	5	5	6	8	9	10	5	6	10
Identifying Athlete Wishes	9	5	9	6	8	7	6	8	6	7
Analysis of Reaching Objectives	9	7	9	8	9	4	6	7	5	10
Accommodating Coach Ambitions	8	5	5	8	8	8	8	5	4	8
Devising Comp. Programme	10	9	4	3	8	5	8	10	7	4
Situational Analysis	8	9	9	8	8	3	7	6	5	7
Devising Content and Work Load	8	9	8	9	6	10	9	10	8	5
Extrapolating into Schedules	8	9	4	9	8	10	9	8	4	6
Devising Unit Plans	9	8	8	9	9	10	9	10	9	8
Using Feedback	8	7	7	8	9	8	9	8	8	8
<u>Feedback:</u>										
Schedule Compl.	8	4	9	6	7	6	8	6	2	3
Athlete Response	9	6	8	8	9	9	8	6	8	10
Performance Outcome	10	9	7	9	9	9	9	9	10	8
Continual Comparison to Perform Potent.	9	8	6	9	8	9	5	8	9	7
Management of Units	9	9	8	8	9	10	8	10	8	8
Recording Unit Progress	9	7	4	2	3	9	7	5	6	5
Objective Testing	8	6	1	2	2	5	4	7	2	2
Coaches' Directive Behaviour	9	9	6	10	7	10	10	10	6	7
<u>Unit Plans:</u>										
Exactly	5	4	0	7	5	5	6	0	0	2
As a Guide	9	7	5	10	9	8	4	10	4	8
Interpersonal Relationships	9	9	8	10	9	8	5	8	8	7
Contingency Planning	7	7	2	8	9	10	7	8	4	7
Administrative Matters - Athlete	7	6	4	7	7	4	6	5	3	6

**TABLE 22A Coach Opinion on Process Elements - Volleyball
(Scoring 0-10)**

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Rehearsal of Strategy	9	9	5	10	9	10	8	6	10	6
Being Present	10	9	9	10	9	10	10	10	10	10
Pre-Start Check List	9	8	7	9	9	7	8	8	2	7
Recording Perf.	8	9	8	8	3	5	8	10	8	7
Competition Role	8	9	5	7	9	10	10	10	10	8
Counselling Athlete	8	5	2	8	6	4	7	8	8	6
<u>Attending To:</u>										
Finance	7	5	6	6	9	3	7	8	6	6
Equipment	6	8	5	8	9	7	7	10	7	6
Facilities	7	8	5	10	9	7	8	10	10	6
Transport	8	8	2	4	9	3	7	3	10	6
Relationships with Agencies	6	4	6	10	8	6	6	6	8	6
Availability of Support Staff	9	2	2	0	9	9	8	5	10	6
Medical Staff	6	5	1	5	8	9	8	10	10	6
Sports Psychologist	6	2	0	0	3	4	1	8	4	6
Manager	6	2	0	10	8	4	8	6	0	6
Awareness of Cont. Develop	8	8	6	7	10	8	9	10	10	8
Trainer	6	5	0	0	8	8	8	6	8	6

**TABLE 22B Coach Opinon on Process Elements - Volleyball
(Scoring 0-10)**

GENERAL INTRODUCTION

A SUMMARY OF RESPONSES BY ATHLETICS COACHES TO THE PROJECT QUESTIONNAIRE

QUESTIONNAIRE RESULTS

CHAPTER NINE

MODEL ASSESSMENT

A summary of responses by athletics coaches to the project questionnaire and an assessment of the aptness of the ideal-type model for describing and understanding their behaviours

INTRODUCTION

1.1

methodological approach... questionnaire... responses... model... behaviours... results... assessment... implications... extent... engaged... ideal-type model.

CHAPTER NINE

A SUMMARY OF RESPONSES BY ATHLETICS COACHES TO THE PROJECT QUESTIONNAIRE AND AN ASSESSMENT OF THE APTNESS OF THE IDEAL MODEL FOR DESCRIBING AND UNDERSTANDING THEIR BEHAVIOUR

INTRODUCTION

9.1 Interviews were conducted with 10 experienced athletics coaches. The principal methodology employed was the completion by the interviewer of a structured questionnaire/check list. The data was collected from 10 male coaches (less than 5% of the sample population are female) who are actively involved with athletes of internationalist standard, both male and female. The results are presented in Tables 23-33 which follow the text of this chapter. The form of this review is as follows. There is a summary of the results themselves with an assessment of the particular implications for those relevant core elements of the model. Following this there is a summary evaluation of the implications for the model and the application of the extent to which the coaches claim to be engaged in the core elements of the ideal-type model.

STRUCTURAL DATA ORGANISATIONAL/PERSONAL (TABLE 23)

9.2 All coaches were very experienced and well qualified in athletics coaching awards. The average age was 51 years and coaches had been coaching for an average of 18 years (with a range of 9 - 34 years). All coaches were part-timers and none were remunerated for their coaching. Each was in employment, with only one teacher and only one related to sport (the B.A.A.B National Coach for Scotland). Each coach had qualified as a British Amateur Athletics Board Senior Coach and 8 out of 10 coaches were actively involved with the National Governing Body as Group Coaches or Squad Coaches. This presented an additional average of 10 days per year beyond their club/squad involvement. Significantly, only 2 of the coaches operated completely within a club organisation. The other 8 athletics coaches operated with a squad of athletes, each of whom was a member of a club for the purposes of competition, although not necessarily the same clubs. Each squad contained athletes of international standing, although 2 of the coaches worked with development age athletes, that is junior age internationalists.

9.3 Coaches reported that the average number of training sessions per week was between 2 and 3 but there was a large range of 1 to 6 sessions. The average length of sessions was 2 - 2 1/2 hours, although 2 coaches noted sessions of 4 hours. All coaches said that they attended competitions, although later figures will demonstrate a large discrepancy in the level of attendance. The majority of coaches were in direct contact with athletes for 47 - 48 weeks, although a significant minority mentioned 40 weeks or less.

LIMITATIONS TO THE IMPLEMENTATION OF THE IDEAL MODEL (TABLE 24)

9.4 Coaches were asked to give a numerical response to factors which influence their capacity for implementing the ideal coaching process (see Table 24). In addition to the factors listed in the questionnaire, coaches were given the opportunity to suggest further limitations. The additional factors were as follows:

- Coach A - involvement by athletes in other sports
- Coaches B and H - distance between coach and athlete
- Coaches D, E and J - climate, weather
- Coach G - lack of back-up, transport, medical etc
- Coach I - athletes leaving sport for career or marriage before reaching peak years.

These responses were sought as constraints likely to be to the forefront of the coaches' conscious deliberations about the process. The factors identified by coaches A, G and I were already referred to in the questionnaire under athlete commitment and absence of support services. Climate and weather was a factor noted by coaches D, E and J. Clearly as an essentially outdoor sport, the weather would be a restrictive factor in wet and windy temperate climate such as in Great Britain. Although only 3 coaches identified this limiting factor, all coaches highlighted weather as a factor which would cause them to amend a pre-planned training session. Coaches B and H lived some considerable distance from the athletes coached and this is obviously a limiting factor. There is a tradition of coaches advising athletes who live outwith normal travelling distances but this is the case usually with mature athletes. The result

will be a restriction on the number of hours of direct contact with a consequent limiting of monitoring and feedback.

9.5 A number of items were rated by the coaches as being most restrictive. These were finance, the hours available for preparation, the absence of support services and the athletes' social and educational circumstances. The lack of finance was related to the competitive programme and to travel and living expenses. Clearly there is a link between the athlete's commitments and the hours available for training. Several coaches bemoaned the lack of full-time athlete status. The three factors rated as least limiting were each a feature of the coaches' capacities. The coaches' experience, knowledge and skills and ability to forecast potential were given the lowest scores. There was a second cluster of items which coaches identified as not being restrictive: these being the availability of facilities, athlete commitment and the availability of equipment. It should be noted, however, that there are differences in equipment and facility requirements between, for example, the middle distance events which are not demanding on resources and the throws or jumps. The almost exclusive use of many athletes training areas may have contributed to the low rating for this item.

9.6 On the whole, the scores were uniformly low. This state of affairs was reinforced during the interview when coaches verbalised their responses during the completion of the questionnaire. The restrictive items were part of the external environment. Coaches perceived the items on which they had little direct influence as limiting their work. Thus the absence of support staff, of finance and competition structures and of the part-time status of the athletes, with consequent distractions, were each viewed as influencing the application of the coaching process. Those items

about which the coach had greater direct control were not thought to be as limiting. This included the coaches' own contributions to the process and the immediate constituents of the direct intervention process.

SIGNIFICANCE OF PROCESS COMPONENTS IN PRACTICE (TABLES 25a, b)

9.7 Coaches were asked to rate on a scale of 1 - 5 the extent to which key elements of the model were perceived to be significant in their coaching process. There was a significant gap between the most highly rated component and the next group of 4 components. These components received significantly higher scores than the remainder. Physical conditioning was scored very highly by all coaches. Given the nature of athletics performance this is not surprising. The next group comprised planning, prevention of injury, technique development and goal setting. Prevention of injury is strongly related to the physical conditioning; technique development is central to athletic performance; and planning and goal setting suggest a systematic approach to the coaching process. The lowly ratings given to tactical development and to competition management may be explained by the nature of athletics competition. However, the equal second lowest score given to objective testing is significant.

9.8 At the same time, coaches were asked to rank the components in terms of the emphasis given to them in time and effort. Not surprisingly these rankings reflect the earlier scoring. The common-sense assumptions of athletics as emphasising physical and technical development are reinforced, as is the importance of planning. Athletics' inclusion in the

target sport category explains the emphasis on planning. However, the use of the same argument belies the low ranking of objective training.

PROCESS BOUNDARIES (TABLE 26)

9.9 Questions in this section were designed to explore the process through which coaches and swimmers come together and form agreements leading to mutual expectations. From the results presented in Table 26 it is clear that it is not the practice for coaches to have written agreements with athletes. Since all of the coaches were acting in a voluntary capacity and the majority were outwith club organisations, it is not surprising that there was no discussion of conditions of service. The majority of athletes have approached the coach and asked to join his squad. One coach noted that he had approached 2 athletes and there were two sets of athletes who had emerged through a club system. Of the six coaches who analysed the athletes' potential before accepting them to the group, the greater number indicated a fairly systematic approach to the review. However, it would appear that the coaches' responses indicated a perceived importance in reviewing potential and acceptability rather than a complex or extensive series of tests. The most important feature seemed to be the athlete's ability to 'fit in' both socially and in the standard of work undertaken.

9.10 This part of the process does not seem to be perceived as important and is not systematic. Athletes and coaches come together in fortuitous ways. However, it may be that the initiation by the athlete ensures that athletes with commitment, and where potential has been noted, are able to seek out the experienced coach, or one with a record of having worked with successful athletes. It is also worthy of note that the coaches in the sample are very experienced and involved to some extent or other with

National squads. When this fact is allied to the objective nature of performance recording, the result is that coaches will tend to be aware of all but the very 'new' athlete, and will have been able to make preliminary judgements about potential performance. Nevertheless, a picture emerges in which coaching processes are enacted between coaches and athletes in informal ways rather than as a result of any systematic process.

GOAL SETTING (TABLE 27)

9.11 This section of the investigation examined both the process and the product of goal setting. Coaches' responses indicated that the process was both unsystematic and largely unrecorded. Goals were identified but not very often put into writing. The process of deciding on the goals was never recorded. Most coaches identified a formal occasion when goal setting took place, but the outcome was most often a setting of competition target performances only. During the goal setting process itself, coaches incorporated a number of possible factors. There was a general agreement that the coach's ambitions were not a significant factor, nor were any club or team goals.

9.12 In translating the goal setting process into operational outcomes, there was a generally positive response. However, it transpired that very little of this was recorded. For example only half of the coaches had short term goals in writing, with very many fewer recording medium or long term goals. Given the nature of the sport it is not surprising perhaps that the vast majority of coaches had a periodised year plan in writing. Similarly, most had a written schedule for a macro-cycle or 4/6 week

block. There were less with a detailed one week plan but this tended to reflect operational planning and is explored later.

9.13 The answer to the question of sufficient data being available to assist in the goal setting process was a narrow majority in favour. A similar number identified non-performance goals. Goals mentioned by coaches included parental relationships, degree of self-centredness, positive approach to self-image and attitudes to training. However, these formed part of the coaches general approach to the athlete and did not reflect written goals, nor identified means of achieving these. When pressed on the outcome of the goal setting process, only 2 coaches identified the number of hours required to achieve the athlete's goals, only 3 identified training targets in writing and the most favoured response was to identify competition targets.

9.14 In summary, the coaches' self-reported practices indicated that goal setting was recognised as a part of the coaching process. This is clearly intended by coaches to be a setting of performance boundaries rather than a systematic part of the planning process. Very little was committed to writing, and, importantly, in terms of the assumptions on which the ideal model rests, little is shared with the athletes. Several coaches made it clear that much of the goal setting process is implicit in the setting of plans, and often the coaches kept records which were personal interpretations of the years expectations. In reality, however, the goal setting process is a time for the setting of specific performance targets for specified competitions. These then form the basis of the evaluation of progress during the year. Much of the anticipated interdependency between goal setting and planning is carried out only in the coach's mental planning process.

OPERATIONAL PLANNING (TABLE 28)

9.15 The pre-planning model was not employed by a majority of coaches. The period of time for which detailed plans were available varied considerably and reflected the coaches' distinctive approaches. One coach had detailed weekly plans for 24 weeks ahead: another had no detailed plans. However, it was generally the length of the planning cycle which varied and a period of 4 weeks would be common to most. Within the yearly outline plan, loadings for activity categories were expressed in very broad terms, generally a percentage level of intensity. Weight training was an activity which was more likely to have a workload factor identified.

9.16 All coaches reported using their experience and previous planning to devise the content of their training. All coaches also acknowledge the use of established sources. No coaches used the results of tests to establish drills. The tests employed were field, rather than laboratory, tests and were used to monitor progress. Only 6 of the 10 coaches used a written plan for a training session, with 7 having a record of sessions, although this is augmented by athlete diaries. Workload factors were expressed for each training session although this was more prevalent in the winter period, and not so pronounced for technique work. The notion of periodical or cyclised training throughout the year is common to all coaches interviewed. The broad strategy of devising an outline programme and then extrapolating into smaller periods is followed by interpreted in different ways. It was common to take short cuts in the planning process. One coach said "now I fly by the seat of my pants" (Coach D), another said "planning is open ended" (Coach H) and yet another suggested that he now operated "off the cuff" (Coach I).

9.17 In general terms of the planning process is considered by coaches to be very important. This is confirmed in Tables 25a, 25b and 33. Nevertheless, operational planning appears to owe more to habitual practice and experience than to the following through of a systematic process.

MONITORING (TABLE 29)

9.18 Coaches were asked to identify that factor against which the progress of the athletes was measured. There was a large measure of variety in the responses, with a common theme of comparison of performance to a previous status. There were a number of responses such as comparison to peer group (for younger athletes), the athletes' verbalised comments, the quality of training and progress through the schedule. However, the greater number of responses referred to comparison to last season's field tests, or to performance in competition. This was confirmed when coaches were asked a second but similar set of questions. Training targets and medical conditions received a majority of responses but by far the largest response was for performance against competition targets. In summary, there does not appear to be an attempt to objectify the monitoring process to some extent. However, coaches were asked to respond to a situation in which training targets were not being met. The responses to these questions did not indicate a systematic process. Half of the sample reported that they took immediate action, and half delayed for some time (2 - 8 weeks). In general, the onset of the next training period would not be delayed; training goals would be redone if considered necessary and performance expectations were usually altered, although this depended on the time of the season and might not be transmitted to the athlete.

9.19 Coaches' reported that they were not conscious of employing feedback from training session to training session, but responded most positively to a 4/6 week review. Similarly, coaches made judgements about performance expectations on a cyclical basis. A general picture emerges of coaches applying a training process which is monitored on the spot for the quality of the athletic performance. Providing that this is within expected or set targets, progress is considered to be adequate. This was confirmed in the response of coaches to the question about the monitoring of potential. This tended to be related to competition targets and performances but not assessed in a very detailed fashion. For example, the majority of coaches would continue with their expectations of the athlete's performance even if their estimations of the likelihood of achieving this was lessened. Thus, coaches said that they retained expectations as long as possible (C, H, E), and that non-achievement would have to be obvious to the athlete (F). One coach's opinion was that if planning was good, feedback should be unnecessary and that the coach should have faith in the planning process.

9.20 It would appear from the coaching process that monitoring is taking place but that it is not fed into the detail of planning unless something is considered to have gone wrong. This latter criteria is as much a matter of coach judgement than objective measurement. A system of thresholds is in operation. In response to the non-achievement of training targets Coach B said, "we're talking about degrees of something". In response to a question on potential Coach C said, "(its) never separated itself far enough back for me to change my mind". Finally, when asked about feedback Coach F said, "(it) normally only happens if the athlete is not reaching expectations". These thresholds are not specified in detail: the coach operates a mixture of awareness, athlete response and some

objective testing. The coach's judgement as to the appropriate action to be taken in response to non-achievement of expectations does not follow any observable pattern. The ideal model has been predicated on the assumption of a system of thresholds. It would appear that the thresholds are in operation but are not objective. They are influenced by the time of the season, the coach's faith in the planning process and a recognition that athletes will not respond mechanistically to training stimuli.

DIRECT INTERVENTION (TABLE 30)

9.21 Only 2 coaches were present at 100% of the athlete's training sessions. The remainder varied from 20 - 85%. The percentage varied throughout the year but there was no pattern to this. One coach had a higher percentage in the competition period but another had a lower percentage. Because of the variable presence, athletes trained on their own (or rather, with other athletes). This was always planned by the coach but responses indicate that it was rarely monitored closely. Coaches did not consider themselves to be closely involved in the competition itself, a feature noted in an earlier section (Tables 25a and 25b). Similarly, competition strategy was not a significant part of the preparation process and was determined within one week of the competition. Coaches attended competition with the athletes to a very varied extent. Coaches reported that they tried to attend major competitions but the number of athletes in the squads and their appearance at different venues made more general appearances very difficult. Athletes were expected to perform to the best of their ability in competition but it was rare for this to be pre-specified in detailed performance terms. Coaches may give generalised expectations.

9.22 Coaches reported that recording of performance was not systematic although many coaches had experimented with video analysis in training. The nature of athletic competition means that a number of event statistics are available for later analysis. Only 4 coaches reported that they retained records in an easily accessible and systematic form. All coaches had a pre-determined training session plan, although not always in writing. When asked to identify the factors which would cause them to alter this plan, 9 identified both weather and athlete readiness. This latter criterion referred to injury, soreness, previous sessions and work or other circumstances.

INDIRECT RESPONSIBILITIES (TABLE 31)

9.23 A significant number of coaches indicated that the direct responsibilities identified were too time consuming although only 3 said that it restricted their work with the athletes. Because of the non-club pattern of involvement, there was little or no assistance from other individuals. Eight coaches reported that they felt the process to be sufficiently individualised for each athlete. This was not surprising since 3 coaches worked with 2 or less athletes and the remainder had athletes specialising in different events.

COACHING PHILOSOPHY (TABLE 32)

9.24 Philosophies or approaches were not easily identified and not easily verbalised. Few coaches responded that they differed in technical interpretation from mainstream athletics credo. There was a large degree of variety in the responses and many used words which might be expected in a discussion of coaching philosophy. Coach C took a non-authoritarian

approach, identifying that he was perhaps "too easy on them". Coach E preferred the practical way to the theoretical. He opined that if he had his way, he would "play everything just by ear". Coach H clearly took an educationalists approach, identifying wider goals. Two coaches, F and G, highlighted group cohesion as a significant part of their approach to coaching. A significant number (4) did not identify any individual characteristics of their coaching process. There did not appear to be any relationship between the characteristics identified and the manner of working of the coaches, other than an absence of a clearly articulated technical or systematic approach. Where criteria were identified they referred to the coaches' interpersonal intervention.

OPINION RATINGS OF PROCESS ELEMENTS (TABLE 33)

9.25 In previous questions coaches had been asked about their current practice. In this instance, coaches were asked for their opinion as to the relative importance of the process elements identified. As would be expected, the responses were generally very high scoring and a number of trends emerged. Goal setting items were rated highly by coaches' with the exception of an accommodation to the coach's ambitions. All planning functions rated very highly. In direct intervention, high scoring was given to feedback concerned with athlete response and the quality of performance. Also receiving these ratings were the continuous appraisal of potential and recording unit progress. Interpersonal relationships as an element of the process was considered very important. The only low score in relative terms was obtained for following training unit plans exactly. As anticipated, being present and competition role received the lowest scores. However, the pre-start check list received the second highest score of all items.

9.26 In indirect responsibilities, attending to facilities and equipment was rated highly. Despite having identified finance as a limiting factor, coaches did not score this item very highly. The need for support services, particularly medical back-up was emphasised by the services of a manager were not valued. In addition, the coaches' need to be aware of contemporary developments was scored highly. The findings of this part of the questionnaire have to be related to the responses given earlier. For whatever reason, perhaps time factors and a reliance on experience, a number of elements in the process are rated highly in an opinion questionnaire but not reflected in practice. For this reason planning, feedback in particular, is rated highly as is monitoring, but is not so systematically attended to.

SUMMARY

9.27 The athletics coaches as represented by the panel interviewed directed the programmes of a squad of athletes, for much the greater part, outwith a club organisation. The coaches were not remunerated for their services and they had no formal arrangements with their athletes. Coaches would attend a majority of major competitions but very often contacted athletes on only 2-4 occasions per week. Goal setting is not recorded and is not used as part of the planning process. Nevertheless, all coaches identified performance targets with their athletes. There is an element of periodisation in that there is a different emphasis in preparation at each stage of the season. The content for this is devised from experience and habitual practice. There is little objectification although there is recording of performance parameters. There is some rigour in setting targets for training purposes but there is little monitoring of progress.

Coaches identify a training prescription and trust that this will bring about the appropriate response. Athletes often train without the coach being present. The coach acts as a manager of the overall process and directs a series of specific inputs. A good deal of time is spent on organisational matters, facility access, finance, transport. Coaches do not play a significant competition role.

9.28 The responses of the coaches from each sport will be aggregated and an evaluation made of the extent of which the ideal-type model provides a basis for a description and explanation of their behaviour. However, at this stage it is possible to make some preliminary statements about the responses of the athletics coaches. In summary, the ideal-type model did not provide an adequate explanation for the coaches' practice. There were disparities between practice and the predictions of the model that could not be accounted for by the application of the model in the athletics context.

9.29 The self-reported practice of the athletics coaches indicated a more varied pattern of practice than was the case with the other sports in the study. It was significant that all of the coaches were part-time and that many worked with athletes who lived a considerable distance from them. Coaches were not present at a very high percentage of the preparation units. Nevertheless, when asked to score limiting factors to the process, the coaches identified external issues, weather, support services and the scale of the process and not their capacity for directing the process.

9.30 When rating the key variable in the process, the athletics coaches give emphasis to physical conditioning and rated planning very highly. Objective testing was not rated highly. In practice, the coaches reported

evidence of a lack of rigour in the implementation of these variables in the core processes of their coaching practice. Initiation and goal setting were not systematic. Although planning was attended to in this outline, the great majority did not implement the programme in a systematic fashion. There was very little objective testing to establish training targets and the thresholds used to regulate the process were interpreted in a very intuitive and subjective manner.

9.31 The coaches' approach to the rigour of the process appears to be influenced by the phase of the year, that is the principal competitions exert a more systematic influence on the process. However, throughout the process, there is a high incidence, reported by coaches, of intuitive interpretation, perhaps exacerbated by the absence of specific targets and a reliance on contingency planning. Athletics as a sport appears to lend itself to a systematic progressive and planned approach to coaching. The reported practice of the coaches did not reflect this and an alternative explanation is required to that offered by the ideal-type model.

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Age	52	57	50	39	50	60	51	43	60	43
Sex	M	M	M	M	M	M	M	M	M	M
Marital Status	M	M	M	M	M	M	M	M	M	M
Employment	Teacher	Train	Surgeon	Person.	Roads	Self	Educ.	Nation.	SubPost	Company
Description	BAAB	Exec.	BAAB	Manager	Engine.	Employ.	Psycho.	Coach	Master	Direc.
Level of Coaching	Sen.	BAAB	BAAB	BAAB						
Award	Rep	Sen.	Sen.	Sen.						
Athletes	Rep Dev	Rep	Rep	Rep						
No of Years Coaching	12	34	9	10	12	20+	28	20	28	18
Structure	None	None	Club +	None	Club	None	None	None	Club	None
Remuneration	Vol	Vol	Vol							
No of Sessions per week	2/3	2	3	5	2	3	2/3	1/2	1	6
AV Length (hrs)	1½-2	4	1½	1½	2	2	2	3/4	2½	2
Attend Competitions	Yes	Yes	Yes							
Weeks Per Year	47	52	304	48	40	40	50	50	52-Hols	48
National Rep Team	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes
Sessions/Month	7 days	20 days	10 days	4 days	16 days	N/A	6 days	12/15 days	N/A	6 days

TABLE 23 Demographic/Experiential Data - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Facilities	2	0	3	8	7	5	4	2	1	2
Experience	2	0	4	4	1	2	3	1	1	0
Finance	8	5	2	9	10	5	6	5	0	5
Knowledge/Skills	3	2	4	2	0	2	3	1	3	0
Availability of Competitions	3	6	3	7	7	5	5	5	1	3
Athlete Commitment	5	3	7	2	5	2	3	1	5	2
Hours for Prep.Training	3	3	5	6	8	2	7	1	5	8
Info.from NGB	5	0	4	6	4	3	7	-	9	3
Availability of Equipment	2	0	6	8	5	7	2	3	0	2
Availability/Commitment of Coach	2	3	5	7	7	1	2	6	8	2
Ability to Forecast Potential	3	2	5	2	2	1	3	1	2	0
Support Services	5	5	3	9	3	7	7	2	8	9
Athletes Abilities	4	3	5	0	7	3	3	3	4	9
Athletes Social Circumstances	5	7	7	5	8	2	3	1	5	7
Absence of Object Plan Data	4	3	3	9	3	8	1	3	7	1

TABLE 24 Limitations to Ideal Model - Athletics (Scores 0-10)

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Physical Condition	5	5	5	5	5	4	4	5	5	5
Psychological Preparation	3	3	4	5	2	2	3	3	3	4
Technical Development	5	4	5	3	5	3	4	4	4	4
Tactical Development	2	1	4	2	2	1	4	2	2	2
Practice Management	4	4	5	2	2	3	5	2	3	5
Competition Management	2	3	3	3	1	2	5	2	2	5
Goal Setting	4	4	4	4	3	3	4	5	3	5
Planning	5	4	4	5	2	4	5	5	4	5
Prevention of Injury	5	3	5	4	5	2	4	5	5	4
Objective Testing	4	3	2	5	3	2	2	3	2	2
Monitoring Social Relat.	2	3	2	3	4	1	4	2	4	5

**TABLE 25A Significance of Process Components in Practice - Athletes
(Scores 1-5)**

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Physical Condition	1	1	2	2	1	1	6	2	1	2
Psychological Devel.	10	6	8	3	7	8	10	6	7	9
Technical Devel.	3	2	3	7	2	2	8	5	3	8
Tactical Devel.	9	11	7	11	10	9	7	10	11	11
Practice Management	5	4	4	10	8	4	3	9	6	3
Competition Management	8	10	9	8	11	10	2	8	9	5
Goal Management	6	3	6	5	6	7	4	3	8	4
Planning	4	5	5	1	9	3	1	4	4	1
Prevention of Injury	2	9	1	6	3	5	5	1	2	7
Objective Testing	7	7	10	4	5	6	11	7	10	10
Monitoring of Social Relat.	11	8	11	9	4	11	9	11	5	6

TABLE 25B Significance of Process Components - Athletics (Ranking 1-11)

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Written Agreement	No	No	No	No	No	No	No	No	No	No
Organisation Basis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditions of Service (Coach)	No	No	No	No	No	No	No	No	No	No
Form of Approach	Club	Athlete	Coach	Athlete	Club	Athlete	Athlete	Athlete	Club	Athlete
Analysis before Agreement	No	Yes	No	Yes	N/A	Yes	Yes	Yes	No	Yes
Review (1-5)	N/A	4	N/A	3	N/A	2	4	3	N/A	5
Written Report	No	No	No	No	No	No	No	No	No	No

TABLE 26 Coaching Process - Boundaries - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Written Record	NO									
Short Term Goals	YES	NO	YES	YES	NO	YES	YES	NO	YES	YES
Medium Term	NW		W	W		NW	W		NW	W
Long Term	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES
Outline Periodisation	YES									
Program 4-6 Weeks	W	W	NW	W	W	W	W		NW	W
Detailed Schedule 1 Week	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
Formal Occasion	W	W	NOT	W		W	W		NW	W
Informal Approach	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES
	N/A	N/A	N/A	N/A	YES	N/A	N/A	N/A	YES	N/A
<u>Process:</u>										
Coach Ambitions	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO
Evaluation of Potential	YES									
Club/Squad Goals	NO									
Social/Educ.Circumstances	YES	NO	NO	YES						
Athlete Wishes	YES	NO	YES							
Sufficient Data Available	YES	YES	NO	NO	YES	YES	NO	YES	NO	YES
<u>Identified:</u>										
No. of Hours	NO	YES	YES	NO	NO	NO	YES	YES	NO	YES
Training Targets	YES	YES	YES	YES	NO	YES	YES	NO	NO	NO
Competition Targets	NW	W	W	W		NW	NW			
Competition Results	YES	YES	YES	YES	NO	YES	YES	YES	NO	NO
Non-Perform Goals	W	NW	NW	W		NW	NW	NW		
	NO	NO	YES	YES	YES	NO	YES	YES	NO	YES
	NO	YES	YES	YES	NO	NO	NO	YES	YES	YES
			NW	W	NW		NW	NW		NW
	NO	YES	YES	YES	NO	NO	NO	YES	YES	YES

TABLE 27 Coaching Process - Goal Setting - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Pre-Planning Model	NO	NO	YES	NO	NO	YES	NO	YES	NO	YES
How Many Weeks Detailed	3-6	12	BLK	4-8	2	24	1½-2	4	NON	4
Graphical Loadings for Season	NO	NO	YES	NO	NO	YES	YES	YES	NO	NO
	NO	NO	YES	NO	WEI GHT	YES	YES	YES	VRY BRD	YES
<u>Drills:</u>										
Established Experience	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
First Principles Testing	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prev. Planning Written Episode	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Written Record	NO	YES	NO	YES	NO	YES	YES	YES	NO	YES
Workload Factors	YES	NO	YES	YES	YES	NO	YES	YES	NO	YES
	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES

TABLE 28 Coaching Process - Operational Planning - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
	PEER GROUP IN COMP.	GOALS SET: COMP. PRG. TRAINING TARGETS	PROGRES THRO' SCHEDULE	STOP WATCH	TESTS PERFORM. IN TRAINING.	LAST YEAR'S TESTS PERFORM. IN COMP.	RELATIVELY TO LAST MONTH QUALITY OF TRAINING.	COMP. PERFORM. TESTS	COMPAR. TO PREV. YEAR	PREV. YEAR TRAINING & COMP.
Progress Monitor	1 WEEK	IMMED.	IMMED.	LESS THAN FOUR WEEKS	1 WEEK	2/4 WEEKS	4 WEEKS	8 WEEKS	AS SOON AS POSS	2 WEEKS
Non Achievement in Training	NO	NOT NORM.	NO	NO	YES	NO	YES	NO	NO	YES
Outcome: Delay Period	YES	NO	YES	YES	YES	YES	NO	YES	YES	NOT NEC.
Alter Performance Expect.	IF NEC.	IF NEC.	YES	NOT NEC.	YES	YES	YES	YES	YES	POSS.
Redo Training Goals	NO	NO	YES	NO	NO	NO	YES	YES	NO	YES
Feedback: Unit-Unit	YES	YES	NO	NO	NO	NO	YES	YES	YES	YES
Week-Week	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES
4/6-4/6	YES	YES	NO	NO	NO	NO	YES	YES	YES	YES
Period-Period	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES
Unit-Performance Expect.	NO	NO	NO	NO	YES	YES	YES	YES	NO	YES
Week-Perf.Ex.	YES	YES	YES	NO	YES	YES	YES	YES	NO	YES
4/6 - Perf.Ex.	YES	YES	YES	NO	YES	YES	YES	YES	NO	YES
Period-Perf.Ex.	YES	YES	YES	NO	YES	YES	YES	YES	NO	YES

TABLE 29A Coaching Process - Monitoring - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
	SYST(1) + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT	SYST + INT
<u>Planning Base</u>	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
<u>Potential Assessment</u>	YES	NO	NO	NO	NO	NO	YES	YES	NO	NO
Constantly	YES	NO	NO	NO	NO	NO	YES	NO	YES	NO
Training Session	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO
Competition	YES	YES	NO	NO	NO	NO	YES	YES	YES	NO
Cycle	NOT	THRES-	AS	FAITH	KEEP	HAVE TO	LEAVE	KEEP	YES	DEPND.
Gap Between Potential and Expected	CHANGE IF POSS	HOLD	LONG AS POSS	IN PLANNG.	EXPECT. LEVELS	BE OBV. TO	TO COME ABOUT	EXP. AS LONG AS POSS	-	ON PERIOD DELAY
<u>Monitoring Criteria:</u>	YES	YES	YES	YES	NO	YES	YES	NO	NO	YES
Training Targets	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Competition Targets	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES
Athlete Satisfaction	LTD	NO	NO	YES	NO	NO	NO	NO	NO	YES
Objective Tests	NO	NO	YES	YES	YES	NO	YES	YES	YES	NO
Medical Condition	NO	YES	YES	YES	YES	NO	YES	YES	YES	NO
Programme Completion	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES

Notes (1) Refers to 'systematic principles' and 'intuition'

TABLE 29B Coaching Process - Monitoring - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Presence at Training Episode	100%	40%	20%	85%	50%	70%	30%	25%	20%	100%
Vary Throughout Season	N/A	WIN SUM	WIN SUM	RISK	SUM	NO	COMP	NO	NO	N/A
Athletes Train on own Directed and Planned by Coach	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monitored by Coach	YES	NO	NO	NO	NO	NO	YES	YES	NO	YES
Assistant Coach	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO
Physiotherapist	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Sports Psychologist	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Any Involved in Planning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actively Involved in Comp	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES
Coach Eval.of own Perf.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	YES	NO	YES
When is Strategy Decided	2 days	N/A	PREV. TRANG.	N/A	N/A	1 WEEK	1 WEEK	2/3 DAY	ON DAY	MAJOR-WEEKS
Attendance at Comp.	YES	90%	25-50%	20%	50%	10%	85%	100% MAJOR	50-75%	80-90%
Specified Comp.Targets	NO	P.B.	NO	NO	NO	YES	YES	YES	NO	NO
Recording:										
Notes	NO	NO	YES	NO	YES	NO	NO	NO	NO	YES
Video	NO	NO	NO	NO	OCCS.	VERY RARE	VERY OCCS.	YES	SOME	OCCS.
Statistical Analysis	NO	NO	YES	NO	NO	NO	LAP TIMES	NO	NO	NO
Records Retained in Systematic and Access.Form	YES	N/A	YES	N/A	NO	NO	NO	YES	NO	YES
Factors Leading to change	MEDICAL SORENES	WEATHER ATHLETE	WEATHER ATHLETE FACILIT	WEATHER ATHLETE	WEATHER ATHLETE	WEATHER ATHLETE FACILIT	WEATHER ATHLETE "IF SESSION POOR"	WEATHER INJURY ATHLETE	WEATHER	WEATHER ATHLETE

TABLE 30 Coaching Process - Direct Intervention - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Years with Squad	2	2	3	1-7	10	2-10	7	2	1-2	4-10
<u>Indirect Resp.</u> Too Time Consuming	som tms	NO	YES	NO	YES	YES	YES	NO	NO	YES
Supportive Process	YES	YES	YES	YES	NO	NO	YES	YES	YES	NO
Restricts Work with Athlete Manager	NO	NO	YES	NO	YES	NO	YES	NO	NO	NO
Sufficiently Individualised	YES	YES	YES CLB	NO	YES	NO	YES	YES	YES CLB	YES

TABLE 31 Coaching Process - Model Application - Athletics

TABLE 32 Coaching Process - Individuality of Process - Athlete

RESPONDENT

A	-
B	-
C	'Perception of being an individual'. 'Not autocratic' - 'easy on them', 'perhaps too easy'; 'try not to make them a pedestal on which I can stand'.
D	'Mixture of formal/informal'; 'coaching is not scientific'; (researcher perception: elements of autocracy re decisions, "drag them there").
E	'Prefer the 'practical aspect' to the theoretical'; 'play just by ear (... if I had my way)'; 'not too technical'.
F	'Cohesion they get from me - happiest squad in Meadowbank'; 'cohesion is very good, camaraderie'.
G	'Relationship - discipline and trust'; 'atmosphere and relationships'; 'deliberately induced group supportive atmosphere - no one ever goes on his own (to competition)'.
H	'Very knowledgeable because of privileged position'; 'educationalist approach - important that she gets more than just good performances'; 'if you coach somebody, you become involved to a pretty high degree'.
I	-
J	-

TABLE 32 Coaching Process - Individuality of Process - Athletics

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Negotiation	2	10	5	2	7	2	6	10	4	5
Agreement on Working Practice	8	8	5	2	8	4	9	7	8	10
Introductory Phase	10	10	2	5	7	2	9	7	10	10
Identifying Athlete wishes	9	10	8	2	7	8	8	10	8	10
Analysis of Reach. Objectives	8	10	6	10	8	7	10	9	10	8
Accommodating Coach Ambitions	2	8	0	2	5	3	4	7	1	0
Devising Comp. Programme	9	8	9	10	8	9	8	10	8	10
Situational Analysis	8	7	3	10	6	9	10	10	10	8
Devising Workload and Content	8	8	5	10	6	9	10	10	10	10
Extrapolating into Schedules	8	8	7	10	5	9	10	10	8	9
Devising Unit Plans	9	8	6	10	3	9	9	9	8	9
Using Feedback	7	10	5	6	4	9	9	10	9	10
Feedback:										
Schedule Compl.	9	8	9	4	5	9	7	8	5	10
Athlete Response	9	8	8	8	10	9	9	8	8	10
Performance Outcome	7	9	6	10	7	9	9	8	10	10
Continual Comparison to Perform Potential	8	10	9	8	5	8	9	7	8	9
Management of Units	8	8	7	5	4	7	9	10	8	9
Recording Unit Progress	7	8	8	9	4	9	10	7	9	10
Objecting Testing	8	8	3	10	8	9	4	7	5	8
Coaches Directive Behav.	8	10	3	6	8	9	9	2	8	10
Unit Plans:										
Exactly	4	10	3	4	4	7	8	0	2	10
As a Guide	9	0	8	8	8	9	-	10	8	0
Interpersonal Relationships	8	8	8	8	9	9	8	8	8	10
Contingency Planning	9	10	4	6	5	8	8	7	10	10
Administrative Matters - Athletes	8	8	1	4	3	7	9	9	8	5

**TABLE 33A Coach Opinion on Process Elements - Athletics
(Scoring 0-10)**

RESPONDENT	A	B	C	D	E	F	G	H	I	J
Rehearsal of Strategy	8	8	5	3	4	9	8	8	8	10
Being Present	8	8	6	3	3	4	6	2	2	10
Pre-Start Check List	8	8	7	10	8	9	10	10	8	10
Recording Performance	8	10	8	2	5	9	10	9	5	10
Competition Role	3	8	2	4	3	4	0	0	5	10
Counselling Athlete	8	8	5	7	5	7	9	10	8	10
<u>Attending to:</u>										
Finance	2	6	1	8	5	4	6	10	8	8
Equipment	9	6	5	10	10	7	7	10	8	8
Facilities	9	6	5	10	10	8	7	10	8	8
Transport	8	6	2	10	5	4	6	10	8	8
Relationships with Agencies	9	7	2	0	10	6	9	6	8	10
Availability of Support	8	6	-	-	8	9	10	10	8	-
Staff										
Medical Staff	8	6	3	10	10	9	9	10	8	10
Sports Psychologist	5	6	3	10	5	9	7	2	8	8
Manager	7	6	-	1	5	8	6	2	8	5
Awareness of Cont.Develop.	9	9	5	10	10	9	10	10	5	10

**TABLE 33B Coach Opinion on Process Elements - Athletics
(Scoring 0-10)**

CHAPTER TEN

DISCUSSION: AN EVALUATION OF THE IDEAL TYPE MODEL AND AN EXPLICATION OF AN ALTERNATIVE CONCEPTUAL FRAMEWORK

INTRODUCTION

10.1 This chapter reviews the findings from the investigation into the behaviours of the sample panel of experienced, national level, coaches in swimming, volleyball and athletics. In the light of these findings, there is an evaluation of the appropriateness of the ideal type model for describing, analysing and understanding coaching behaviours in these sports.

10.2 The initial aim of this research project was to devise and present an innovative model of the sports coaching process. This was intended to offer a more powerful analytical tool in terms of which coaching behaviour could be understood and predicted, than was available at the time. The results of the exploratory assessment of the ideal type model demonstrate that the model fails to provide an adequate basis for an understanding of the full range of the behaviours of Scottish top-level coaches in these sports. Its usefulness varies according to the stage of development of a sport and the amount of time athletes can offer.

- 10.3 An alternative conceptual framework is presented which appears to account more successfully for the absence of systematic implementation in day-to-day coaching practice. The underlying assumptions of the ideal type model are integrated with the explanation of professional practice offered by Schon (1983, 1987). His work is based on an analysis of the behaviour of professionals in coming to terms with fluent, competent practice, and offers an explanation for the apparently intuitive decision-making process characteristic of professional practice.
- 10.4 The strength of a methodology employing an ideal type model is that it enables the researcher to use the model as a benchmark in terms of which qualitative and possibly quantitative judgements of the gap between 'theory' and practice can be made. It also serves to highlight those elements of the process which are central to understanding the process. The ideal-type model, in this instance, failed to approximate a model of practice in many respects, but was useful in pinpointing regulation and implementation as those parts of the process not accounted for by the model. These elements, therefore, are focused upon during this discussion. The chapter concludes with proposals for future research which build constructively on the framework offered by an amalgamation of the ideal type model and the Schon theoretical framework. No comment is made on the extent to which this framework provides a 'model for' coaching practice.
- 10.5 The chapter is structured in the following way. A review of the investigation is conducted which focuses on the differences between the sports and the extent to which these differences account for the behaviour of the respective coaches. This is followed by a summary of the coaches' actual practice as reported by the coaches themselves and illuminated by

supporting evidence. The implications of this for the ideal type model are considered. Thereafter Schon's main concepts are introduced and woven into a speculative and integrated new explanation of coaching practice.

REVIEW OF RESULTS

- 10.6 The data collected during the investigation provide a thorough qualitative, descriptive account of the behaviour of coaches within the constraints of self-reported behaviour. However, the author's experience, personal knowledge of many of the coaches, evidence from a pilot study on the behaviour of athletics coaches and the integration of responses to different parts of the checklist, suggest that the panel's responses are an accurate reflection of the coaches' practice.
- 10.7 The concise summaries contained in preceding chapters reflect the fact that the clear indications of consonance between the opinions of coaches and the underlying assumptions and processes of the rational, systematic approach embodied in the ideal type model are not mirrored by the aggregation of behaviours reported by coaches. The opinion ratings of the coaches gave considerable prominence to elements of systematic practice - feedback, planning, management practice - even though these were not reported by coaches to be effected in day-to-day practice. To some extent, therefore, there is support for the fact that those key elements of the process on which the model is predicated form part of the rhetoric of coaching although clearly the responses which follow indicate that the coordination, integration and operationalisation of these are not accounted for by the ideal type model as presented.

INTER-SPORT COMPARISONS

10.8 A number of very clear trends emerge from a collation of the evidence from the three sports. The following points summarise the extent to which coaches in each sport report that they engage in the core processes of the ideal-type model. The data from the coaches illustrate the usefulness of many of the assumptions on which the model is predicated. All coaches had a clear intent to effect improvements in performance through controlled programmes of preparation and competition. All coaches considered that they directed these programmes and many emphasised this role. To this extent there was a consensus, in its very broadest sense, in the overall approach of the coaches. Nevertheless, a very significant finding was the variability between sports in the coaches' behaviour. This was evident both inter-sport and intra-sport. Much of the variability could be accounted for in the external circumstances within which the coaches operated, particularly the extent of preparation time, and the vagaries of interpretation and application of basic training principles.

PLANNING

10.9 The evidence suggests that between and within sports, responses are idiosyncratic. Approaches to planning indicated differences of approach which were beyond simple interpretation. This is reflected in athletics in which one coach had a prepared schedule for twenty weeks and one coach did not plan beyond one week. Similarly the differences between meso-cycle planning in swimming and volleyball cast doubt on the ideal type model as a template for all coaches and all sports. Coaches reported a far greater range of approaches than would be predicted from the model.

10.10 Goal setting was recognised to be an important procedure and all coaches claimed to be engaged in it to some extent. However, the outcomes were rarely recorded in writing and were identified only in the broadest terms. Goals tended not to be individualised in accord with personal capacity and development, even in swimming and athletics, and there was an ambivalent attitude to non performance goals. The most significant finding is that the goal-setting process did not result in data which were then incorporated into the planning, and particularly, the monitoring and regulatory procedures. Goal setting was approached in an ad hoc, informal way and it remained isolated from the remainder of the planning process. Such circumstances render the process less accountable to predetermined standards although they are reflective of the dynamic and continuous nature of the coaching process. The need for new planning cycles may account for a degree of taken-for-grantedness but it does not explain the lack of precision and the absence of integration into the planning and monitoring.

10.11 The principle of periodisation was evident in the reported practice of all coaches. It is clear that coaches understand the relationship between the different phases of the competition year and the exercise categories and intensities appropriate to those phases. Nevertheless, it was also evident from the reported behaviours of the coaches that these principles were not implemented in a completely systematic fashion. Given the nature of swimming and athletic performance, it is not surprising that exercise intensities were determined very precisely. In volleyball, this was almost never the case. For all coaches, however, there was evidence that a short-term perspective was the norm and that a fully integrated inter-dependent system of training loadings was honoured more in intention

than in practice. Nevertheless, recognition was given to the impact of periodisation by all coaches albeit with a much shorter-term horizon by the volleyball coaches. The sport specific nature of periodisation in planning appears to reflect the culture-specific development level of the sport.

REGULATION

10.12 The most significant findings and the clearest disparities between the coaches' practice and the expectations from the ideal type model are to be found in the regulation of the process. The implementation of planning decisions and the extent to which these are monitored and fed-back into the process is sufficiently distinct to require an alternative explanation. There are many examples of a lack of a systematic approach in monitoring the process. Coaches reported that they relied on qualitative interpretations of athlete responses to training; placed a low priority on objective testing; did not employ training targets on a widespread basis; employed a high level of contingency planning within their practice management; did not employ feedback from session to session; and, most significantly, based decisions about progression, rehabilitation and future action on qualitative, intuitive judgements. Coaches perceived decision-taking to be intuitive, interpretative and idiosyncratic insofar as it was based on feelings, experience and rarely verbalised criteria. It should be noted, however, that there was some attempt to objectify the process. Nevertheless, the ideal type model is predicated on the assumption that performance is predictable within a situation where resources are available and there is unlikely to be a need for rescheduling based on unforeseen circumstances. Swimming coaches operated in the most systematic fashion but athletics and volleyball coaches were far removed

from this ideal. Coaches did not employ a system of intricate, interdependent feedback loops. Within the planning shell, the preparation schedules are implemented and continued unless they trigger a threshold at any particular stage of the process. The criteria for these thresholds are not explicit and are dependent on qualitative interpretation. To this extent the ideal type model based on a rational programme is not reflective of practice and requires re-interpretation.

10.13 There were obvious examples of coaches failing to attempt to control and take account of elements of the programme that were closely related to performance. The most significant example of this was the training undertaken by athletes whilst not under the direct supervision of the coach. In the investigation, coaches reported that they determined the programme for this 'self-training' but that the athlete response to it was rarely monitored. Despite the fact that this part of the programme consisted largely of physical conditioning exercises with fairly predictable athlete responses, this was an example of the coaches in the panel failing to exercise control over all variables to the extent that is possible within existing constraints.

SPORT SPECIFIC FACTORS

10.14 It is important to distinguish between differences in coaching behaviours which are attributable to the nature of the sport itself and those related to the context within which the coaching takes place. It is clear that the outcome of the planning process will differ significantly for target sports such as swimming and athletics as compared to league-based sports. The context within which coaching takes place is dependent upon the cultural and developmental status of the sport. This is most evident in the level of

athlete commitment and the extent of the programme on which this is dependent. It is a significant issue for this discussion if the processes identified by the reported behaviour of the coaches in each sport do not have in common many of the features of the ideal type model.

10.15 A significant result from the findings is the degree to which coaches rely or do not rely on monitoring thresholds rather than more explicit feedback processes. The nature of the competition pattern in each of the sports in the project helps to explain these differences. In the target sports, that is those sports with a relatively long preparation phase and individual target competitions of differing values, the performance itself is very often some considerable period of time away from the training phase being monitored. For this reason, thresholds are less intensely applied in early phases of the competition year and coaches reported that aberrations from expected progress would need to be very significant before any serious amendments were made. On the other hand, volleyball coaches, operating within the constraints of a league programme, were more sensitive to results week-by-week and this would explain the more dynamic and contingent nature of the monitoring process.

10.16 Volleyball coaches placed greater emphasis on the practice management phases of the process, and were less precise in their determination of exercise loadings. The direct intervention phase in team sports and, in particular, in volleyball differs very considerably from that in swimming and athletics. There is a greater involvement by the coach in the drills of exercises themselves. The coach will 'feed' for the drills and will determine exercise loadings during the session itself. There is also a more intense level of individual technical feedback related to external stimuli and a need to integrate team patterns. For these reasons, the

direct intervention phase in volleyball practice is reported to be more susceptible to less systematic and more apparently intuitive behaviour. This puts some emphasis on the coaches' communicative, teaching, personal performance and directive abilities. This may partly explain the significant number of Physical Education teachers in the volleyball panel and their extensive playing experience.

10.17 Coaches identified the matrix of criteria which determined their feedback/threshold system. It is likely that the matrix will be complex and inter-related insofar as the criteria are situation specific. The factors were divided into individual performer reactions and competition results. More specifically, coaches reacted to the quality of effort within an exercise, individual performer reaction to the stress induced, and the influence of injury status, and an expectation based on an awareness of previous performance. Swimming coaches paid particular attention to results in major competitions and, as with athletics coaches, to performance during the competition phases of the season. Volleyball coaches were influenced by the result of the previous game although the result was evaluated in the light of the level of the opposition. Volleyball coaches reported having a mental picture of how the team could play and compared current performance to that potential. It was significant that progress was determined by recourse to qualitative data dependent upon the interpretation of the coach and, occasionally, the athlete. There was no indication of the use of objective thresholds in isolation. Coaches preferred to retain control of the decision-taking process.

10.18 The nature of the sport is reflected in the practice of the coaches. There are differing component emphases and the competition structure influences both the planning process and the form of direct intervention.

Individual and team sports clearly have distinct priorities. Nevertheless, there was no evidence that the nature of the sport itself led to fundamental differences in the process although there is evidence that the stage of development of the sport (full-time, part-time players and coaches) is very significant. There were differences in the level of systematisation but these differences appear to owe more to the context within which the coaching took place. The volleyball coaches exhibited the least systematic approach and operated more obviously in an intuitive manner with a high degree of contingency planning. It might be argued that the complexity of a team sport would lead to it being more difficult for coaches to operate in the manner assumed by the ideal-type model. However, the work of Beal (1985, Sports Coach 1988) with the full-time USA men's volleyball team has shown that a more rational and controlled approach is possible. In the investigation described in this work, the ideal-type model did not prove useful for explaining and describing the coaches' behaviour. Despite the structural differences between sports, however, there is no reason to believe that this was the reason for the deficiencies of the ideal type model.

10.19 The context within which the coaches operated influenced the scale of the process and determined the external constraints. The swimming coaches who met with their athletes on ten or more occasions per week and who were remunerated for their services, were often operating in a large and relatively well resourced club structure. It is assumed that they had the time and commitment to engage in whatever process they saw fit. Swimmers were typically adolescents whereas the athletes and volleyball players were young adults, with other marital and employment responsibilities. The age range of the athletes may have influenced the approach of the coach but not the underlying rational principles of the

ideal model. On the other hand, the volleyball coaches operated on a more restricted basis. Contact with the players was much more limited. It seems obvious that the model as described does not explain the reported practice of the part-time coaches. It cannot be assumed, however, that the time factor alone is responsible for the absence of a rational approach. An alternative explanation is required for the coaches' behaviour. Nevertheless, coaches operating on a full-time basis in swimming, volleyball (Beal) and athletics (see Appendix B) do engage in the process with a greater degree of systematisation. The ideal model was supposed, theoretically, to be possible. In practice, it proved inappropriate for describing, analysing and predicting the behaviour of the coaches in the panel. However, the sport specific influence on the coach explains the pattern of involvement of the coach but does not account for the fundamental difference between the coaches' practice and that predicted by the ideal-type model. However, it is strongly influenced by the level of commitment of the players.

APPLICATION FACTORS

10.20 It was recognised in the earlier explication of the proposed model that it would need to be applied in particular sets of circumstances. The external constraints on the process would act as determinants of the scale of the process but since they would be accounted for in the planning process, should not affect implementation. The differences between the project sports demonstrate how the overall extent of the process is dependent upon finance, access to facilities, competition structures and the consequent level of athlete commitment sustained by the rewards available within the sport. To some extent this may explain the limited nature of the volleyball coaching process. Limited competition

structures, finance and preparation programmes reflect the limited extrinsic rewards available. This principle may also partially account for the variability in the athletics data where athlete commitment and resources reflect the athlete's level of performance. It is important to recognise that the limited extent of a programme exacerbates the difficulty of applying a rational, systematic approach. An example of this is the ineffectiveness of applying systematic training theory principles of practice when a part-time athlete works at a pre-determined time each week, and may not be training sufficiently intensely to effect improvement adaptations in the body. Thus the part-timer could operate more systematically but the effect of increased planning, regulation and monitoring would be reduced.

10.21 One of the assumptions on which the model is predicated was the knowledge and skill of the coach. Coaches reported that factors under their direct control did not limit the process and no coach identified his/her own level of knowledge and skill to be significant limitations to the implementation of an ideal process. Further investigation would be required to test whether this perception accords with the knowledge required to implement a systematic programme. There were clear indications of coaches whose knowledge and skills in planning and monitoring were not employed to any great extent and who eschewed analysis and systematic planning, assigning them a low priority.

10.22 In summary, the absence of a systematic approach and the failure to employ core processes as outlined by the model cannot be accounted for by application factors. It was anticipated that the ideal model would be capable of development in terms which allowed specific external constraints to be recognised. The disparity with the coaches' value

reported behaviours cannot be accounted for by the coaches' value frameworks nor the essential nature of specific sports. Within the circumstances reported by the coaches, a more systematic implementation could have taken place and an alternative explanation is required for the pattern of behaviour reported.

ANALYSIS OF ACTUAL COACHING PRACTICE

10.23 It is necessary to have a coherent picture of the behaviour reported by coaches with which to evaluate the ideal-type model for describing, understanding and predicting that behaviour. Chapters 7, 8 and 9 give summaries of behaviour in each of the sports in the investigation. This section collates this data and offers an analysis of the information. Volleyball coaches have limited but regular contact with their athletes. The coaches performed important functions as directors of operations. They determined and led the content of training sessions and selected and led the team in competition. Attention was centred around the competition league structure which provides a focus for goals, objectives and planning. There was a relatively short-term horizon in planning. Concentration in preparation was on technique development and tactical integration and development. The process was implemented in an intuitive, ad hoc fashion with little systematic recording of data. Coaches were volunteers who operated within a club structure but with little, if any, assistance.

10.24 Swimming coaches operated within club organisations with a high level of devolved responsibility for the indirect elements of the coaching process. The coaches engaged in a greater degree of life-style management as a result of the hours of preparation in which the athletes engaged and the

youthfulness of the swimmers. Coaches concentrated on the determination of training loads with some attention to technique. Physical conditioning was given a higher priority than, for example, psychological preparation where there was little evidence of a formal approach. There was a greater degree of recording of data and some objectification. However, swimming coaches reported an intuitive feel for progress, for review of quality and for regulation. All coaches were paid an honorarium or part salary.

10.25 The athletics coaches' behaviour displayed the greatest variety. Each coach directed the planning and programming of the athlete or group of athletes. However, there was a considerable difference in the extent to which coaches directed the implementation of the programme. There was a range of roles, therefore, from the consultant/adviser to the coach who was present at almost every session. Coaches focused attention on physical conditioning and the honing of techniques. In athletics, there were more athletes who undertook (principally) conditioning sessions without the coach present. Although athletes competed as representatives of a club structure, the majority of coaches operated squads outwith a formal club organisation. All were volunteers. The involvement of the coaches in the process appeared to be related to the level of performance of the athlete and the consequent level of commitment.

10.26 All coaches operated within a background of some shared assumptions wherein the general pattern of engagement was as anticipated. There was an objective (sometimes implicit) of improvement through a purposeful programme of preparation and competition. However, there were variations in the level of integration within the programme. The majority of the coaches stressed their central and often dominant role within the process.

10.27 It was clearly intended by all coaches that the programme should be predetermined and planned. There was a range of time horizons between coaches and between sports. Despite this, there was a more or less developed and formalised planning shell for at least one competition seasonal cycle. This resulted in a periodised year with appropriate content in each phase. In some cases this was pre-determined for the whole session (see Appendix B); in others, the detail of the short term cycles was identified nearer to implementation. The content of training and preparation programmes is determined more by habitual practice and experience than by analysis of performance need with systematic feedback and the determination of content from first principles. There is recourse to recipes of schedules and programmes within which there is little evidence of the objective testing of the programmes for monitoring purposes.

10.28 The implementation of the process on a day-to-day basis is a complex and involved task. Some of the coaches, some of the time, have a scientific and analytical approach to monitoring and evaluating what has been done. For the greater part, implementation is characterised by an ad hoc, experiential approach in which a pragmatic, contingent approach to the determination of training loadings and content is practised. Implementation is characterised by short term horizons. The coaches operated to a system of triggers or thresholds. Only when these are breached did coaches amend their schedules. This involves the qualitative interpretation of athlete responses, competition results or (some) quantified performance data.

10.29 Coaches reported that individual unit plans were not expected to be implemented exactly. A high degree of contingency planning was the norm, whether as a result of player response, climatic conditions or an absence of predetermined load factors. The coaches' judgements in making these decisions followed principles of practice based on experience and received wisdom.

10.30 Coaches reported that they did not relate performance to specific training inputs nor did they derive content from an analysis of performance. Content was determined in recipe fashion with a belief and faith in the predictability of the effect of the recipe based on experience, coach education and the dissemination of the experience of other coaches. The reliance on recipe programming is accompanied by a low priority accorded to quantification and an absence of commitment to a scientific process. There is no commitment to comprehensive analysis, to an integrated analytical approach which weighs elements in the programme for their effect on performance. However, it is important to realise that many coaches are well versed in the formulae required to apply basic principles. Although not theory driven, they are capable of reflection when there is an absence of success. Coaches make their judgements about progression, player reaction and programme amendments in an apparently intuitive manner.

Summary

10.31 This study has produced a considerable amount of information about how coaches behave in practice. Significant differences between coaches and between sports have been revealed. It is open to question whether there is a coherent, systematic and traditionally valued body of academic

knowledge which could constitute coaching theory. It seems likely that there is an eclectic and pragmatic use of knowledge pertinent to performance and derived from other disciplines, although there are tacit and explicit principles of practice. Knowledge in coaching consists largely of technical, sports specific wisdom. The kind of knowledge proposed in the ideal type model does not appear to be regarded by the coaches in this study as critical to their performance. Their behaviour has been shown to be highly idiosyncratic. The evidence does not support the notion that they are drawing upon a body of knowledge which is common to all sports.

AN ALTERNATIVE CONCEPTUAL FRAMEWORK

10.32 As the review of the results of the investigation make clear, the ideal-type model did not offer the description and understanding of coaching behaviour which was anticipated. There is a need for a conceptual framework which offers a more adequate explanation of the coaches' behaviour. For this reason, the project goes on to describe the work of Donald Schon (1983, 1987) and to suggest that the interpretation of the practice of professionals advocated by him offers a more effective description and analysis of the coaches' behaviour. As such, the integration of these ideas into the model proposed may offer a very potent template for future research. It is acknowledged that the introduction of this theoretical perspective was not part of the original research design and that it is introduced as a result of the limited power of the ideal-type model for accounting for elements of the coaching practice described in previous chapters. It is important to note that Schon's paradigm of professional practice has not been tested empirically. He bases his

observations on a 'close examination' of professionals in practice (Schon 1983, p viii), using an interactive qualitative methodology.

10.33 Schon's interest is in the artistry and practical competence of the professional and in the extent to which this is differentiated from traditionally valued academic knowledge and can be trained in the young aspiring professional. This study draws upon his observations on professional competence and focuses on the extent to which they can be applied to part-time coaches, accounting for the apparently short-term, pragmatic and intuitive decision-making reported by the panel of coaches in the study.

10.34 Schon's argument is that traditional professional knowledge fails to equip the young professional with the adaptability to deal with the problem solving inherent in the uniqueness and complexity characteristic of modern professional activity. Traditional professional education is based on the principle of 'technical rationality' (that is, a systematic, scientific application of established theory to the instrumental resolution of problems). This Schon sees as the heart of a crisis in the development of professions and professionals. He argues that such technical rationality compares unfavourably with the actuality of professional practice. The uncertainty, uniqueness, instability and complexity of practice is resolved by an artistry and competence which the professional has great difficulty in describing. There is often recourse to terms such as intuition, wisdom, talent, experience or trial and error. The question for the educator is how this fluency of practice can be enhanced.

10.35 There is an immediate parallel between technical rationality and the assumptions underlying the ideal-type model. The logico-deductive

methodology assuming a rational approach to the coaching process is directly analogous to the scientific, systematic rigour of Schon's traditional education paradigm. It remains open to question, however, whether the eclectic use of related sub-disciplines and principles of practice constitute an acknowledged body of coaching theory. Nevertheless the investigation into coaches' behaviour has identified an approach to day-to-day practice which is not adequately described nor understood using such a model as proposed in this study. Lastly, and very significantly, there are strong grounds for a suggestion that the description of the professional context as unique, complex and filled with uncertainty is a very accurate representation of the problem facing the sports coach. Each individual athlete or team, with its previous experiences, different potential, individual goals, the interdependency of performance variables, and the immediacy of unfolding competition presents a unique professional problem.

10.36 Schon attempts to solve the dilemma by identifying an epistemology of practice which is implicit in the artistic, intuitive processes demonstrated by practitioners.

"in his day-to-day practice he makes innumerable judgements of quality for which he cannot state adequate criteria, and he displays skills for which he cannot state the rules and procedures."

(Schon 1983, p 50)

In order to engage in the 'art' displayed by the practitioner, Schon proposes that the professional is making use of knowledge which is contained in the action itself. This knowing-in-action is not the application of a prior intellectual operation but is more akin to a tacit, unconscious skilled action. The practitioner often has a great deal of

difficulty in expressing how this competence is put into practice, but it is through the use of such tacit norms that the practitioner makes the qualitative judgements characteristic of professional competence. Schon observes that this knowing-in-action is reflected in actions which are carried out spontaneously, that the practitioner is unaware of having learned the skill, and that, at a final stage, may be unable to describe the knowing the action reveals.

10.37 Perhaps more significantly, Schon concludes from his observations of professionals that they think about what they are doing whilst doing it. They not only reflect on action but reflect-in-action. This reflection-in-action is a central tenet of Schon's paradigm and explains how the professional comes to grips with the unique problems and complex situations. The problem may be resolved over a short or long timespan and, therefore, the reflection may take minutes or years. This will depend on what Schon terms the 'action-present', that is, the period of time within which the outcome of the reflection may still have an effect. As a result of the reflection, the practitioner may construct a new description of the problem, derive a new strategy for solving the problem or reconsider the value orientations inherent in the action being taken. Schon notes the degree of reflection in professional practice and counsels that the effect of practice becoming more routine is that knowledge-in-practice becomes more spontaneous and an opportunity to be reflective may be missed.

10.38 The practitioner who reflects-in-action is compared to the researcher and Schon views this as evidence of a measure of rigour in the process. The professional's artistry and competence is based on solid foundations. To demonstrate this, Schon articulates reference points within which the

practitioner operates; the language medium, value judgements, overarching theories employed to interpret events, and role contexts within which tasks are defined. These reference points change but only slowly. When professionals reflect-in-action, it is an opportunity to identify the 'intuitive understandings' they display. Nevertheless, the description of these is unlikely to be as rich as the artistry itself and there may be an incongruity between the strategy for description and that for action.

AN APPLICATION OF THE SCHON MODEL TO THE RESULTS OF THE STUDY

10.39 There is a very striking similarity between Schon's professional knowledge dichotomy and the divergence between behaviours following the ideal-type 'rational' model and the actual behaviour reported by the coaches. In addition, the uncertainty and uniqueness of the professional's tasks mirror very closely the unique combination of individual and performance factors which characterise each coaching process. However, the most important issue is the degree of congruence between the coaches' reported implementation behaviour and the Schon framework. The review of results identified the implementation stage as least well described or accounted for by the idea-type model. Coaching practice in week-by-week or day-to-day operations exhibits a pragmatic, short-term characteristic. Coaches report that intuition and gut feelings represent their action processes. Clearly coaches in all sports make qualitative judgements without recourse to systematic criteria, and operate a system of threshold triggers to regulate progress.

10.40 The coaches' behaviour can be sub-divided into three categories, each of which can be better understood by referring to Schon's epistemology of

practice. These are the devising of short term schedules, unit plans and exercise loadings; the qualitative judgements characteristic of decision-making during training units; and crisis judgements of the sort which arise during competition or following trauma. In devising unit plans, coaches appeared to act intuitively during the implementation stage and to have recourse to habitual practice at the planning stage. The significant factor is that coaches were able to carry this out. In Schon's terms, their knowledge-in-practice allowed them to cope with the uncertain nature of the training unit. Many coaches opined that training unit plans should not be interpreted exactly. All recognised the contingency behaviour resulting from weather conditions, equipment and facility availability, athlete response to loadings and injuries. Coaches appear to have the artistry to deal with such complexity and Schon's identification of knowledge in the action itself offers an explanation for the apparently unsystematic application of the existing training theory principles. Such an approach results in an incremental progress through the preparation process. There is a danger, however, that the coach will engage in habitual, repetitive practice. This recipe behaviour may not allow for reflection and the coaches' knowledge and horizons may become unchallenged. Certainly the pragmatic, contingent approach of the coach is given much clearer perspective by the application of Schon's work.

10.41 A similar explanation is possible for the decisions taken by coaches during the direct intervention itself. Examples of this would be the decision to alter exercise loadings, to respond to training targets which have not been achieved or to offer feedback on technique matters. In such situations the coaches in the study report that their responses are not systematically derived. Again there is a sense of intuitive behaviour, and a use of the triggering mechanism. Given that there may be relatively

little time to reflect-in-action, the coach employs the knowledge-in-action and does so by reflecting consciously or unconsciously on the schema of stimuli presented. Insofar as this schema is based on past experiences, mediated by successful outcomes, and interpreted within frames of reference recognised by professional practice, the process has a degree of rigour attached to it. The fairly immediate application of such a process may be the only way to make sense of the complexity presented in such situations.

10.42 Another implementation context is the crisis decision required during competition by coaches in some sports and by all coaches in situations where safety and well-being are threatened. The ability to 'think on one's feet' is recognised by coaches as a valued skill and is necessitated by the uncertainty inherent in sports performance and in human response to training stimuli. In such situations it is unlikely that time will be available to systematically consider all factors and all alterations. The opportunity for action may be lost by delaying a decision or, indeed, the coach may not have the mental capacity to compute all the variables in the time available. Schon's explication of professional action offers an explanation for the apparently intuitive nature of such decisions. In fact, the coach is displaying an artistry acquired over a period of time and employing a schema, which reflection will continue to develop.

10.43 Schon demonstrates in his description of professionals in practice that practitioners can identify their intuitive understandings by reflecting on their behaviour. It is clear that there is much work to be done in assisting coaches to identify the frameworks within which their decisions are taken. In Schon's view, the value framework of the most expert professionals are needed to educate the next group of practitioners. The

data collected from the panel of coaches contained some references to such criteria. Volleyball coaches spoke of a potential performance image which underpinned qualitative judgements on progress. However, it is not yet obvious that the thresholds to which coaches operate are common to all coaches or even consciously identified.

10.44 Coaches in the investigation identified the implementation phase of the coaching process as problematic and there was a clear divergence between the coaches' behaviour and that predicted by the ideal-type model. The conceptual framework offered by Schon offers a more adequate explanation for the apparently intuitive practice of the coaches. The uncertainty, complexity and value conflicts inherent in problem solving characterise the direct intervention phase of the coaching process and the professional action strategy outlined by Schon allows the practitioner to cope with the challenges.

DISCUSSION

10.45 The initial intention of the study was to devise a model of the coaching process which would describe coaching practice and offer a vehicle for analysis, interpretation and understanding. The model was based on an ideal-type methodology and was predicted on a set of assumptions which incorporated a rational, scientific and systematic approach to coaching. The discrepancies between the ideal-type model and the self-reported behaviour of the panel of experienced coaches in the study clearly indicate that the model described is not a model of the coaching process and does not have the capacity to explain and predict the coaches' behaviour. This is so even when the application factors relating to individual coaching contexts are taken into account. Coaching is not a scientific process and

implementation has been demonstrated to be neither rational or systematic.

10.46 An alternative conceptual framework based on the work of Donald Schon has been described and this appears to offer a more adequate explanation for the day-to-day behaviour of the coaches in the study. For this reason, it would be appropriate to integrate the Schon account of practice with the ideal-type model. Conceptually this might be thought of in the following way. The ideal model with its eclectic body of theories and principles of practice contributes the systematic outline planning within which the coach operates. This planning shell is dependent upon circumstances and education. The Schon paradigm accounts for the fluency of day-to-day implementation which operates within the planning shell.. The scale of the 'implementation paradigm' will vary according to the element of knowledge-in-practice required. Based on the results in this study, the intuitive understandings demonstrated by volleyball coaches would greatly exceed those of the swimming coaches for whom the nature of the preparation and competition performance allows a greater degree of objectification and systematisation.

10.47 The discrepancies between the ideal-type model and reported practice were identified very clearly at the implementation stage in the process. Coaches intimated a general intention for the process but the devising of content for this and the regulation of its progress were not carried out in the way anticipated in the ideal model. The programmes themselves and the detailed schedules therein are devised in recipe fashion. This recipe may be a tried and tested habitual practice of the coach or one available in the literature or sport specific sources. This recipe is implemented and accompanied by a series of 'fine-tuning' judgements.

10.48 It seems likely that there is a continuum in operation within the coaches' practice. One end of the continuum is characterised by a strategic horizon but with small time scales for planning and implementation. Recipes are used without significant adjustments. At the other end of the continuum, recipes are applied with the regular application of basic principles. Coaches with the knowledge are able to constantly refine and adjust the programme as required albeit the adjustments owe more to qualitative interpretation than scientific or systematic reasoning.

10.49 Recipes themselves can be devised from first principles (Schmolensky 1978). Coaches are operating on the basis that the judicious application of the recipe will bring about the outcomes in exercise adaptation and performance in terms which are anticipated by theoretical reasoning or the experiences of self and others. To a great extent this accounts for the absence of objective testing. The result is the use of generic, simple, grounded theories which will work most of the time. This reinforces the coaches' use of them. However, there is a degree of sophistication possible in the application of recipe programmes. Firstly, implementation will require contingency planning to take account of the factors identified earlier, for example, injury, loss of form, climate, facility access. Those with experience will give priority to certain critical factors. Secondly, if the athlete's progress triggers one of the coaches' threshold criteria (and expectations) those coaches with knowledge of theory or practice principles will have recourse to them and the fine tuning judgements will be more informed. Where recipes are not perceived to be successful, the more innovative will go further and devise new recipes.

10.50 The ideal model assumed that there would be no constraints which would affect the implementation of the model. The circumstances within which the coaches in the panel of this study operated were not ideal. It is clear, however, that it was not as a result of these circumstances that the ideal-type model failed to represent coaches' practice. Nevertheless, the integration of the systematic model and the Schon paradigm offers a continuum with a greater or lesser degree of systematic, scientific practice. As has already been noted, target sports lend themselves more susceptible to systematic planning and objectification than of inter-active team sports. It seems likely that the most important factor is of time commitment of both athlete and coach. Those who operate on a full-time basis will be in a position to attempt to control variables influencing both performance and the process as a whole. Part-timers will have a very high level of contingency planning and the outcome may therefore be a less effective process.

10.51 It would appropriate to test the integrated model in a more rigorous fashion. Such an examination would include observations of coaching practice at a number of levels of experience and athlete abilities, and in a variety of organisation settings. At this stage it is not possible to do more than indicate that the results of this study would support the contention that the integrated model would prove to be a model of the coaching process. In practice it will be necessary to identify critical constraints to coaching practice and to identify the matrix of criteria employed by coaches in their knowing-in-practice. These may then be built into the model more explicitly. The frames of reference for the individual coaches and the critical limiting factors for particular sports are necessary in order to compare the practice of coaches in, for example, Scotland, with

those in relatively constraint-free circumstances such as the US volleyball programme described by Beal (1985).

10.52 The ideal-type model assumed that there was a practice in sport given the term coaching. It was noted, however, that there was an issue of delimitation and demarcation of the coaching role. A thorough examination of the coaching model now proposed is necessary to provide data with which to conduct an examination of the coaching role. It may be that, in some circumstances, the constraints are so limiting and the number of contingent factors so great that the term coaching is inappropriate. The adviser/consultant role may be more appropriate.

10.53 This final section has possibly raised more questions than it has answered. However, this is reflective of the hitherto unexplored nature of the work. The ideal-type model did not provide an adequate understanding of coaches' behaviour but with the insights provided by the Schon epistemology of practice, an integrated model has the potential to do so. This study set out to devise a model and to conduct a preliminary examination of its suitability as a descriptive and analytical tool. Having done so, the success of the study is in setting out an agenda for further research in an area of professional and cultural study which is much neglected.

BIBLIOGRAPHY

Albrow, M.

Max Weber's Construction of Social Theory

London: Duckworth, 1966.

BIBLIOGRAPHY

Agassi, J.

"Towards a method for the solution of scientific and philosophical problems" Philosophical Studies, Volume 14, No. 2, 1961, pp. 107-120.

Atkinson, B.

History of Football and Associated Games

London: Duckworth, 1966.

Atten, C.

Development of the Football Tactics of English and Welsh League Football Coaches
Unpublished Ph.D. thesis, State College, 1971.

Atten, C.

"Sport and the coach" Journal of Sport Sciences, Vol 3, No. 2, pp. 101-110.

Barnes, J.

The Development of Football Tactics: A Coaching Document

BARNES, 1971.

Barnes, J.

"The Development of Football Tactics Coaches" BANS Newsletter, No. 11, July 1971.

Barnes, J.

Tactical Development of the Victorian 18th Century Football Team

London: Duckworth, 1966.

Barnes, J.

Coaching and Football Tactics

London: Macmillan and Pabst, 1973.

Barnes, J.

"The development of tactical concepts in football coaching" Journal of Sport Sciences, Vol 3, No. 2, pp. 111-120.

BIBLIOGRAPHY

Albrow, M

Max Weber's Construction of Social Theory

Macmillan Education, 1990.

Aspin, D

"Towards a curriculum for the education of coaches: some principles and problems" in Physical Education Review, Vol 6, No 2, 1983, pp 92-100.

Atkinson, D

Orthodox Consensus and Radical Alternative

Heinemann Educational, 1971.

Avery, C

A Comparison of Interaction Patterns of Effective and Less Effective Coaches

Unpublished research project, Ithaca College, 1978.

Bailey, C

"Sport and Element of Chance" in Journal of Sport Behaviour, Vol 3, No 2, 1980, pp 69-75.

BANC/NCF

The Development of Coaching in Britain: A Consultation Document

BANC/NCF, 1987.

BANC

"The Institute of British Sports Coaches" in BANC Newsletter, No 11, July 1988, p 5.

Beal, D

Spike: The Story of the Victorious US Volleyball Team

San Diego: Avant Books, 1985.

Bennet, B et al

Comparative PE and Sport

Philadelphia: Lea and Febiger, 1975.

Bird, A M

"A group dynamics approach to effective coaching of team sports" in Motor Skills: Theory into Practice, Vol 2, No 2, 1978, pp 92-101.

Blundell, N

"Superior coaching" in Sports Coach, Vol 7, No 4, 1984, pp 49-53.

Bompa, T
Theory and Methodology of Training
Dubuque Iowa: Kendall Hunt, 1983.

Borg, B
Borg by Borg
Octopus, 1980.

Boycott, G
In the Fast Lane
Arthur Baker, 1981.

Bratton, R
"Why coaches coach" in CAPHER, Vol 45, No 2, 1978-79, pp 26-29.

Brohn, J M
Sport: A Prison of Measured Time
Ink Links, 1978 (English Translation).

Bryant, C G A
Sociology in Action
George Allen and Unwin, 1976.

Cain, G
"Coaching - an art or science" in Athletics Coach, September 1980, pp 10-14.

Carron, A V
"Role behaviour and the coach-athlete interaction" in International Review of Sports Sociology, Vol 13, No 2, 1978, pp 51-65.

Centre for Leisure Research
A Review of Sports-Related Research
Edinburgh: DCPE, 1987.

Cerutti, P W
Succeed in Sport and Life
Pelham Books, 1967.

Chambers, D
"Anatomy of a good coach" in Coaching Review, Vol 2, No 12, 1979, pp 36-38.

Chelladurai, P
Sport Management
London, Ontario: Sports Dynamics, 1985.

Chelladurai, P
"Professional Development of Coaches" in Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth and International Conference on Sport, PE, Dance, Recreation and Health.
Glasgow, London: E and F N Spon, 1986, pp 139-150.

Chelladurai, P & Haggerty, T R
"A normative model of decision-making styles in coaching" in Athletic Administration, Vol 13, No 2, 1978, pp 6-9.

Chutter, P
"The role of the coach" in The Coach. Proceedings of the 1980 Guinness Conference of Sport, Ulster Polytechnic, 1980, pp 20-24.

Coakley, J J
Sport in Society
St Louis: C V Mosby Co, 1982.

Coach Education: Preparation for a Profession
Proceedings of the VIII Commonwealth and International Conference on Sports, PE, Dance, Recreation and Health.
E & F N Spon, 1986.

Coaching Association of Canada
Coaching Theory: Level One. National Coaching Certification Program
Ottawa: Coaching Association of Canada, 1979.

Cook, M
Soccer - Coaching and Team Management
EP Pub, 1982.

Cratty, B
Psychology in Contemporary Sport
Englewood Cliffs, New Jersey: Prentice Hall, 1973.

Crawford, S
"Spotlight on coaching behaviours: a speculative objective analysis" in Sports Coach, Vol 4, No 3, 1980, pp 48-50.

Curtis, M
"How coaches function" in Sports Coach, Vol 8, No r, 1985, pp 39-42.

Daly, J
"The role of the coach" in Towards Better Coaching: the Art and Science of Coaching, F Pyke (Ed)
Canberra: Australian Government Publishing, 1980.

Danielson, R R et al
"Multi-dimensional scaling and factor analysis of coaching behaviour as perceived by high school hockey players" in Research Quarterly, Vol 46, No 3, 1975, pp 323-334.

Danziger, R C
"Coaching humanistically - an alternative approach" in The Physical Educator, Vol 39, No 1, 198, pp 121-125.

Darst, P W et al
"Analysing coaching behaviour and practice time" in Motor Skills, Vol 5, No 1, 1981, pp 3-12.

Davis, H
The Glory Game
Sphere Books, 1972.

Davis, K
"An approach to the analysis of a coach's performance" in Sports Coach, Vol 3, No 1, 1979, pp 26-29.

Dick, F
Sports Training Principles
London: Lepus, 1980.

Dick, F
"Trends in training theory" in Athletics Coach, Vol 16, No 1, 1982, pp 27-32.

Dick, F
"Coaching in the club" in Athletics Coach, Vol 8, No 1, 1984, pp 2-6.

Dick, F
"Trends in training theory" in Athletics Coach, Vol 18, No 3, 1984, pp 22-29.

Dick, F
"The coach and problem solving" in Athletics Coach, Vol 19, No 2, 1985, pp 27-30.

Dick, F
"Coaching - the way ahead" in Coaching Focus, No 3, Spring 1986, pp 3-6.

Duncan, M and Biddle, B
The Study of Teaching
New York: Holt, Rhinhart & Winston, 1974.

Dunphy, E
Only a Game
Penguin, 1976.

Duquin, M E and Tomayko, J R
"Coaching in educational institutions: a performance analysis system" in Journal of Physical Education, Research and Development, Vol 56, No 7, 1985, pp 23-25.

Duthie, J H
"Coaching: a behavioural science approach" in Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth and International Conference on Sport, PE, Dance, Recreation and Health.
Glasgow, London: E and F N Spon, 1986, pp 201-205.

Dyson, G
"40 years on: some thoughts on coaching and development" in BANC Magazine, No 2, 1981, pp 2-4.

Edwards, H
Sociology in Sport
Homeward: Dorsey Press, 1973.

Edwards, P
"The use of computers in coaching" in BANC Newsletter, No 10, May 1984, pp 18-23.

Fairs, J

"The coaching process: the essence of coaching" in Sports Coach, Vol 11, No 1, 1987, pp 17-20.

Franks, I M

"Analysis of the coaching process" in SPORTS
Ottawa: CAC, January 1986.

Franks, I M

"Analysis of performance qualitative or quantitative" in Science Periodical on Research and Technology in Sport, March 1983, pp 1-8.

Fuoss, D E and Troppmann, R J

Effective Coaching: A Psychological Approach
New York: John Wiley & Sons, 1981.

Gallon, A J

Coaching - Ideas and Ideals
Boston: Houghton Mifflin, 1981.

Gleeson, G

"Coaches coaching coaches how to coach" in BANC Newsletter, No 12, October 1984, pp 25-28.

Gleeson, G (Ed)

The Growing Child in Competitive Sport
Hodder and Stoughton, 1986.

Gordon, A

"Some important aspects of coaching effectiveness in soccer" in SJ of PE, Vol 11, No 1, 1983, pp 5-10.

Gowan, G

"Coaching as an art form" in Modern Athlete and Coach, Vol 16, No 1, 1978, pp 35-38.

Gowan, G R and Thomson, W G

"The Canadian approach to training of coaches: matching the paradigm" in Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth and International Conference on Sport, PE, Dance, Recreation and Health. Glasgow, London: E and F N Spon, 1986, pp 39-60.

Gowling, A

"The occupation of a professional footballer" in Momentum, Vol 2, No 2, 1977, pp 12-18.

Gravelle, L

"How a coach interacts with his athletes" in Psychological and Sociological Factors in Sport. Eds Klavara, P and Wibber, K A. University of Toronto, 1986, pp 325-334.

Hargreaves, J (Ed)

Sport, Culture and Ideology
Routledge and Keegan Paul, 1982.

Harre, D (Ed)
Principles of Sports Training
Berlin: Sportverlag, 1982.

Hart, B A et al
"An examination of the reduction in the number of female interscholastic coaches" in Research Quarterly, Vol 57, No 1, 1986, pp 68-77.

Hattlestad, N
"The systematic evaluation of coaches" in Physical Education Newsletter, Old Saybrook, 1984, pp 6-8.

Hendry, L
"The coaching stereotype" in Readings in Sports Psychology, Whiting, H T A. Henry Kimpton, 1972, pp 34-54.

Henry, L
"A personality study of highly successful and 'ideal' swimming coaches" in Research Quarterly, Vol 40, No 2, 1969, pp 299-305.

Hoehn, R
Solving Coaching Problems: Strategies for Successful Team Developments
Boston: Allyn and Bacon, 1983.

Holmes, S L
"Characteristics of the ideal coach" in NZJHPER, Vol 13, No 1, 1980, pp 17-26.

Howe, B L
"Coaching beyond the beginner - a psychological perspective" in NZJHPER, Vol 14, No 1, 1981, pp 16-17.

Jackson, J A (Ed)
Professions and Professionalisation
Cambridge: Cambridge University Press, 1970.

James, C, Rea, C and Cherry, R
Injured Pride: The Lion's in South Africa
Arthur Baker, 1980.

Jones, B and Wells, J et al
Guide to Effective Coaching
Boston: Allyn and Bacon, 1982.

Jones, M
"The coaching essentials" in Athletics Coach, Vol 17, No 2, 1983, pp 20-23.

Kane, J E
"The coach" in The Coach. Report on the 1980 Guinness Conference of Sport, Ulster Polytechnic, 1980, pp 11-19.

Kidd, T
"Social - psychological characteristics of physical education teachers and coaches" in Review of Sport and Leisure, Vol 4, No 1, 1979, pp 29-39.

Knoppers, A
"Gender and the coaching profession" in Quest, Vol 39, No 1, 1987, pp 9-22.

Kozhukhov, V A et al
"Forming the ability to coach a soccer team" in Yessis Review of Soviet PE and Sports, Vol 13, No 3, 1978, pp 81-83.

Ladany, S P and Machol, R E
Optimal Strategies in Sport
Amsterdam: North Holland, 1977.

Lansdorf, E
"A systematic observation of football coaching behaviour in a major university environment". Doctoral Dissertation.
Arizona State University, 1979.

Lawrence, H
"Towards an evolutionary process: sports coaching in New Zealand - into the 1990's" in NZJHPER, Vol 12, No 2, 1979, pp 43-49.

Leddington, P J and Wootton, K
"The management and operation of coaching systems: a systems approach" in Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth and International Conference on Sport, PE, Dance, Recreation and Health.
E and F N Spon, 1986, pp 280-287.

Lenk, H
Team Dynamics
Campaign: Stipes Pub, 1977.

Letzelter, M
"The sportive trainings as topic of the science of coaching" in International Journal of Physical Education, Vol 18, No 3, 1981, pp 10-14.

Locke, L F and Massengale, J D
"Role conflict in teachers/coaches" in Research Quarterly, Vol 49, No 2, 1978, pp 162-174.

Lombardo, B J
"The coach in action: a descriptive analysis" in Bulletin of FIEP, Vol 54, Nos 3/4, 1984, pp 9-15.

Loy, J W and Kenyon, G S (Eds)
Sport, Culture and Society
New York: Macmillan, 1969.

Lyle, J
"The role of the coach" in Journal of Psycho-Social Aspects, Vol 7, 1981, pp 40-56.

Lyle, J
"Coach education: preparation for a profession" in Paradigm paper Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth Conference and International Conference on Sport, PE, Dance, Recreation and Health.
E and F Spon, 1986, pp 1-25.

Lyons, K

Using Video in Sport

Huddersfield: Springfield Books, 1988.

Macholtz, J

"An equation for success in coaching" in The Physical Educator, Vol 35, No 1, 1978, pp 22-25.

Mancini, V H and Agnew, M

"An analysis of teaching and coaching behaviours" in Sports Psychology - an Analysis of Athlete Behaviour. Ed Straub, W.

Ithaca, New York: Movement Pub, 1978, pp 277-284.

Martin, G and Hrycaiko, D

"Effective behavioural coaching: what's it all about" in Journal of Sports Psychology, Vol 5, No 1, 1983, pp 8-20.

Messengale, J D

"Coaching as an occupational subculture" in Phil Della Kappen, Vol 56, 1974, pp 140-142.

Messengale, J D

The Principles and Problems of Coaching

Springfield, Illinois: C C Trowers, 1975.

Massimo, J

"The gymnast's perception of the coach: performance competence and coaching style" in Psychology in Sports. Ed Suinn, R M.

Minneapolis: Burgess, 1980, pp 229-237.

Matveyev, L

Fundamentals of Sports Training

Moscow: Progress Pub, 1981 (English Translation).

Moody, N

"Coaching - do we know anything about it" in Coaching. Conference Paper SUPEA, 1980, pp 18-26.

Moore, W

The Professions

New York: Russell Sage Foundation, 1970.

Morgan, W J

"Towards a critical theory of sport" in Journal of Sport and Leisure Studies, Vol 7, No 1, 1983, pp 24-34.

McNab, T

"Coaching Philosophy" in Athletics Coach, Vol 11, No 4, 1977, pp 23-25.

National Coaching Foundation

The coach at work

Leeds: NCF, 1986.

Neal, P

Coaching Methods for Women

Reading, Mass: Addison-Wesley Pub Co, 1978.

Neil, G and Kirby, S
"Coaching styles and preferred leadership" in Journal of Sports Behaviour, Vol 8, No 1, 1985, pp 3-17.

Nettleton, B
"Voluntary leaders in sports associations" in Sports Coach, Vol 4, No 2, 1980, pp 16-21.

Nideffer, R M
The Ethics and Practice of Applied Sport Psychology
Ithaca, New York: Movement Pub, 1981.

Noble, B J
Physiology of Exercise and Sport
St Louis: Times Mirror/Mosby College Publishing, 1986.

Norcross, T H
"Performance appraisal for coaches" in Coach Education: Preparation for a Profession. Proceedings of the VIII Commonwealth and International Conference on Sports, PE, Dance, Recreation and Health.
E and F N Spon, 1986, pp 151-156.

Orlick, T and Botterill, C
Every Kind Can Win
Chicago: Nelson Hall, 1975.

Palmer, W
"The role of the coach" in Sports Coach, Vol 3, No 4, 1980, pp 38-41.

Parkin, D
"The changing role of the coach" in Sports Coach, Vol 9, No 1, 1985, pp 10-11.

Pearson, K
"The who and why of playing" in Sports Coach, Vol 2, No 3, 1978, pp 26-31.

Percival, L
"Coaching - art and science" in Proceedings of the Symposium on the Art and Science of Coaching. Ed Taylor, J W
Toronto Fitness Unit, 1974, pp 7-8.

Pettigrew, A M
"Occupational specialisation as an emergent process" in Sociological Review, Vol 21, No 2, May 1973, pp 225-278.

Pieron, M and Graham, G
Sports Pedagogy. The 1984 Olympic Scientific Congress Proceedings, Vol 6.
Champaign, Illinois: Human Kinetics Pub, 1986.

Pyke, F (Ed)
Towards Better Coaching
Austrialian Government Publishing Service, 1980.

Pyke, F
"Some considerations in the education of sports coaches" in NZJPHER, Vol 17, No 3, 1984, pp 3-5.

Quarterman, J

"An observational system for observing the verbal and non verbal behaviours emitted by physical educators and coaches" in The Physical Educator, Vol 37, No 1, 1980, pp 15-20.

Ram, P

"The coach is the centre of sports: philosophical perspective" in Inter Journal of Physical Education, Vol 22, No 1, 1985, pp 15-21.

Rate, R

"A descriptive analysis of academic learning time and coaching behaviour in inter-scholastic athletic practices". Doctoral Dissertation
Ohio State University, 1980.

Ravizza, K and Daruty, K

"Paternalism and sovereignty in athletics: limits and justifications of the coach's exercise of authority over the adult athlete" in Journal of Philosophy of Sport, Vol 11, 1984, pp 71-82.

Reeves, B

"Towards a coaching profession" in British Journal of Physical Education, Vol 10, No 4, 1979, pp 109-110.

Reid, M

"Coaching team sports at university - a reality or a naive assumption" in Coaching. SUPEA Conference, 1980, pp 51-60.

Reid, M

"A concept of coaching rugby football in a British university" in Proceedings International Seminar: The Art and Science of Coaching
Wingate Inst. Israel, 1979, pp 182-187.

Rotsko, A

"A comparison of coaching behaviours of successful and less successful coaches".
Unpublished Masters Thesis.
Ithaca College, New York, 1979.

Roxburgh, A

"An educationalist's approach to coaching" in BANC Magazine, No 2, 1981, pp 13-15.

Rushall, B S

Psyching in Sport
Pelham, 1979.

Rushall, B S

"Coaches and sport psychology" in International Review of Sport Psychology, Vol 10, No 3, 1979, pp 164-167.

Rushall, B S

"Characteristics of effective coaching" in Sports Coach, Vol 4, No 2, 1980, pp 3-5.

Rushall, B S

"Several principles of modern coaching" in Sports Coach, Vol 8, No 3, 1985, pp 40-44.

Rushall, B S and Smith, K

"The modification of the quality and quantity of behaviour categories in a swimming coach" in Journal of Sport Psychology, Vol 1, No 2, 1979, pp 138-150.

Sabock, R J

The Coach

Philadelphia: W B Saunders, 1979.

Sage, G H

"Occupational socialisation and value orientations of athletics coaches" in Research Quarterly, Vol 44, No 3, 1973, pp 269-277.

Sage, G H

"The coach as management" in Quest, Vol, XIX, 1973, pp 35-40.

Sage, G H

"Humanistic psychology and coaching" in Sports Psychology and Analysis of Athlete Behaviour. Ed Straub, W F.

Ithaca, New York: Movement Pub, 1980, pp 148-161.

Sage, G H

"An occupational analysis of the college coach". Ball, D W and Loy, J W, Sport and the Social Order

Reading: Addison-Wesley, 1975, pp 395-455.

Sands, R

"Coaches and their thoughts on selected themes" in Sports Coach, Vol 3, No 3, 1979, pp 26-28.

Saunders, J

"Teaching and coaching of physical education and sport-working from a discipline base" in International Journal of Physical Education, Vol XX, No 2, 1983, pp 9-14.

Schmolinsky, G (Ed)

Track and Field: Athletics Training in the GDR

Berlin: Sporverlag, 1978.

Scholastic Coach

"What coaches really think" in Scholastic Coach, Vol 54, No 3, 1984, pp 66-70.

Schon, D A

The Reflective Practitioner: How Professionals Think in Action

Temple Smith, 1983.

Schon, D A

Educating the Reflective Practitioner

San Francisco: Jossey Bass, 1987.

Scott, P and Pelliccioni, S

"Understanding coaching style and performance" in Women's' Varsity Sports, Vol 5, No 3, 1984, pp 28-30.

Scottish Sports Council
Training of Coaches: A National Seminar
Edinburgh: Scottish Sports Council, 1979.

Scottish Sports Council
National Strategy for Coach Education and Coaching Development in Scotland
Edinburgh: Scottish Spots Council, 1988.

Sherman, M A and Hassan, J S
"Behavioural studies of youth sports coaches" in Sport Pedagogy. The 1984 Olympic Scientific Congress Proceedings. Eds Pieron, M and Graham, G
Champaign, Illinois: Human Kenetics, 1986, pp 103-108.

Shneidman, N
The Soviet Road to Olympus: Theory and Practice of Soviet Physical Culture and Sport
Routledge and Keegan Paul, 1979.

Silva, J
"The status of sports psychology: a national survey of coaches" in Journal of Physical Education, Research and Development, Vol 55, No 7, 1984, pp 46-49.

Simri, V (Ed)
The Art and Science of Coaching. Proceedings of an International Seminar.
Wingate, Israel, 1980.

Smith, R, Smoll, F and Hunt, E
"A system for the behavioural assessment of athletic coaches" in Research Quarterly, Vol 48, No 2, 1977, pp 401-407.

Smith, R E et al
"Coach effectiveness training - a cognitive-behavioural approach to enhancing relationship skills in youth sport coaches" in Journal of Sport Psychology, Vol 1, No 1, 1979, pp 59-75.

Smoll, F, Smith R et al
"Towards a meditational model of coach-player relationships" in Research Quarterly, Vol 49, No 4, 1978, pp 528-541.

Snyder, E E and Spreitzer, E
Social Aspects of Sport
Eaglewood Cliffs: Prentice Hall, 1978.

Sports Coach
"Interview with Doug Beal" in Sports Coach, Vol 11, No 3, 1988, pp 4-9 (Editorial).

Stanek, P
"A study of interpersonal behaviour characteristics of male and female collegiate coaches". MSc Thesis.
Western Illinois University, 1977.

Strache, C V
"Players perceptions of leadership qualities for coaches" in Research Quarterly, Vol 50, No 4, 1979, pp 677-686.

Strauss, K S

"A case study in behaviour modification" in Behaviour Therapy, Vol 3, 1974, pp 81-86.

Swartz, D and Hopper, B

"Experiential coaching" in Swimming Technique, Vol 20, No 3, 1983, pp 12-14.

Taylor, P and Langley, M

With Clough by Taylor

Sedgewick and Jackson, 1980.

Taylor, J (Ed)

Proceedings of the Symposium on the Art and Science of Coaching

Toronto Fitness Institute, 1974.

Taylor, J (Ed)

How to be an Effective Coach

Manual Life/CAC, 1975.

Terry, P

"The coaching preference of elite athletes competing at Universiade '83" in Canadian Journal of Applied Sport Science, Vol 9, No 4, 1984, pp 201-208.

Terry, P and Howe, B

"Coaching preferences of athletes" in Canadian Journal of Applied Sport Science, Vol 9, No 4, 1984, pp 188-193.

Tharp, R and Gallimore, R

"What a coach can teach a teacher" in Psychology Today, Vol 9, No 8, 1976, pp 75-78.

Tinning, R

"Improving coaches' instructional effectiveness" in Sports Coach, Vol 15, No 4, 1982, pp 37-41.

Treadwell, P

"How do we begin to move towards a profession" in Coaching Focus, No 3, Spring 1986, pp 9-11.

Tutko, T A and Ogilvie, B C

"The role of the coach in the motivation of athletes". Slovenko, S and Knight, JA in Play Games and Sports

Springfield, Mass: Thomas, 1967.

Ward, I

"The work of a national coach" in Athletics Coach, Vol 18, No 2, 1984, pp 17-18.

Watkins, J

An Introduction to the Mechanics of Human Movement

Lancaster: M T P Press, 1983.

Watson, A W S

Physical Fitness and Athletic Performance

Longman, 1983.

Watson, G

"The sports coach as youth worker: social psychological dimensions of effective coaching" in Sports Coach, Vol 5, No 2, 1981, pp 4-8.

Wainwright, C

"Communications approach to coaching" in Sports Coach, Vol 4, No 4, 1980, pp 34-36.

Weir, M

Hockey Coaching

Kay and Ward, 1978.

Weiss, H

"Voluntary instructors - important for the development of GDR sport" in Sport in the GDR, Vol 2, 1980, pp 26-27.

White, A

"Women coaches: problems and issues" in Coaching Focus, No 6, Summer 1987, pp 2-3.

Whitson, D

"Coaching as a human relationship" in Momentum, Vol 5, No 2, 1980, pp 36-43.

Wilberg, R B

"An analysis and application of game and human performance theory to sport and competition" in Readings in Sport Psychology 2, Ed Whiting, H T A Lepus, 1975.

Wilberg, R B

"Control theory, player strategy and game theory" in British Proceedings of Sports Psychology FEPSAC Congress, Eds Alderson, G J K, Tyldsley, DA, 1975, pp 305-315.

Williams, J G P and Sperryn, P N (Eds)

Sports Medicine

Edward Arnold, 1976 (2nd Edition).

Williams, K

"An interactive model of the teaching/learning process: consistency from formulation to implementation" in Motor Skills, Vol 6, No 1, 1982, pp 47-56.

Worthington, E

"The coach in action" in Sports Coach, Vol, 2, No 3, 1978, pp 5-8.

APPENDICES

APPENDIX A

COACHING QUESTIONNAIRE/CHECKLIST

The questionnaire consisted of the following sub-divisions:

- 1 Demographic/experiential Data
- 2 Limitations to the ideal model
- 3 Coaching process questionnaire and check-list
- 4 Opinion rating of process elements.

APPENDIX A

1 DEMOGRAPHIC/EXPERIENTIAL DATA

To be completed by the researcher in the process of the study

Name: (opt)

Address: (opt)

Age: Sex:

Marital status:

Employment description:

Spouse:

Highest level of coaching qualification:

Current standard of athletes being coached
beginner/club/representative

Number of years coaching:

Organisational structure: club/other/organisation/none

APPENDIX A

PROJECT QUESTIONNAIRE/CHECKLIST

The questionnaire consisted of the following sub-divisions:-

- 1 Demographic/experiential Data
- 2 Limitations to the ideal model
- 3 Coaching process questionnaire and check-list
- 4 Opinion rating of process elements.

1 DEMOGRAPHIC/EXPERIENTIAL DATA

(to be completed by the researcher in the presence of the respondent)

Name: (optional)

Address: (optional)

Age: Sex:

Marital status:

Employment description:

Sport:

Highest level of coaching qualification:

Current standard of athletes being coached:
beginner/club/representative

Number of years coaching:

Organisational structure: club/other/organisation/none

Commitment: volunteer/honorarium/pro rata payment/salary

On average, how many 'sessions' per week do you attend with athlete(s)/team? (include competitions):

On average, what is the length of these 'sessions'?:

Is it your common practice to attend competitions?: YES/NO

On average, how many weeks in the year, do you spend in direct contact with your athlete(s)/team?:

Do you coach a representative squad?: YES/NO

On average, how many 'sessions' per month do you attend (include competitions)?:

PLEASE MAKE IT CLEAR WHICH PROCESS IS THE BASIS OF YOUR RESPONSES: CLUB/UNATTACHED OR REPRESENTATIVE

(all responses to be derived from non-representative group involvement)

2 LIMITATIONS TO THE IDEAL MODEL

The following questions seek your opinions as to the relative importance of factors which may limit the degree to which the ideal coaching process may be entered into.

Please circle the number which represents the degree to which each factor limits your current coaching process, from being ideal.

		Does Not										Severely
		Limit										Restricts
1	The availability of appropriate facilities.	0	1	2	3	4	5	6	7	8	9	10
2	Your experience, as coach.	0	1	2	3	4	5	6	7	8	9	10
3	The availability of appropriate finance.	0	1	2	3	4	5	6	7	8	9	10
4	Your knowledge and skills, as coach.	0	1	2	3	4	5	6	7	8	9	10
5	The availability of appropriate competitions.	0	1	2	3	4	5	6	7	8	9	10
6	The commitment of the athlete(s).	0	1	2	3	4	5	6	7	8	9	10
7	The number of hours available for preparation.	0	1	2	3	4	5	6	7	8	9	10

8	The information available from the Governing Body.	0	1	2	3	4	5	6	7	8	9	10
9	The availability of appropriate equipment.	0	1	2	3	4	5	6	7	8	9	10
10	Your commitment/availability, as coach.	0	1	2	3	4	5	6	7	8	9	10
11	Your ability to forecast athlete potential.	0	1	2	3	4	5	6	7	8	9	10
12	The availability of 'support services' - eg medical, psychological.	0	1	2	3	4	5	6	7	8	9	10
13	The athlete(s)' abilities.	0	1	2	3	4	5	6	7	8	9	10
14	The athlete's social circumstances eg exams, work, friends, parents.	0	1	2	3	4	5	6	7	8	9	10
15	The absence of objective data on which to plan in detail.	0	1	2	3	4	5	6	7	8	9	10

Please elaborate, if you wish, on any of the above.

Which other factors do you consider important in preventing the coaching process from being ideal? _____

3(a) COACHING PROCESS QUESTIONNAIRE

This short questionnaire has been designed to elicit information on the relative importance attached by you to various parts of the coaching process.

Please complete the questionnaire as it applies to your current coaching responsibilities. (If you are in any doubt about the meaning to be attached to the descriptor, please ask the researcher).

Circle the number which most closely describes the degree of importance ie. the emphasis in time and effort which you attach to each part of the coaching process. Please circle a number for all elements.

Q With what degree of importance, do you rate the following aspects of your coaching?:-

		1 of no importance	2 slight importance	3 fairly important	4 very important	5 of utmost importance
Physical conditioning	<input type="checkbox"/>	1	2	3	4	5
Psychological preparation	<input type="checkbox"/>	1	2	3	4	5
Technique development	<input type="checkbox"/>	1	2	3	4	5
Tactical development	<input type="checkbox"/>	1	2	3	4	5
Practice session management	<input type="checkbox"/>	1	2	3	4	5
Competition management	<input type="checkbox"/>	1	2	3	4	5
Goal setting	<input type="checkbox"/>	1	2	3	4	5
Planning	<input type="checkbox"/>	1	2	3	4	5
Prevention of injury	<input type="checkbox"/>	1	2	3	4	5
Objective testing of performance components	<input type="checkbox"/>	1	2	3	4	5
Monitoring social relationship with athlete(s)	<input type="checkbox"/>	1	2	3	4	5

Now please review the factors and rank them from 1 and 11 in the boxes provided.

3(b) COACHING PROCESS CHECK-LIST

1 Process boundaries

Do you have a written agreement with your athlete(s)? YES NO

Is this part of an organisational agreement? YES NO

Have 'conditions of service' or mutual expectations been discussed YES NO

What was the form of the approach to or from the athlete?

Did you agree to proceed before carrying out an analysis of the athlete(s)' potential? YES NO

How intensive would you characterise this review process?

Cursory/ Superficial	1	2	3	4	5	Intensive/ Systematic
-------------------------	---	---	---	---	---	--------------------------

Was any part of this 'initiation procedure' characterised by a written report or formal meeting? YES NO

2 Goal Setting

Do you have (or can you produce) the following:

A written record of goal setting

Short term goals

Medium term goals

Long term goals

An outline plan of periodisation for the next/this season

A programme of work for the next
4-6 weeks

A detailed schedule for the next week

Goal Setting

Was there a formal occasion(s) when you sat down with your
athlete(s) to engage in goal setting? YES NO

Did you approach goal-setting in an informal way? YES NO

Which of the following are you conscious of having built into the
process:

Your own ambitions

Your evaluation of the athletes' potential

Team/club goals

The social/educational circumstances of the
athlete(s)

The athlete's expressed desires

Do you feel that you had sufficient data available on which to
base your recommendations/evaluations? YES NO

Which of the following have you identified:

In writing

Number of hours commitment

Training targets

Competition targets

(Relative) competition result
expectations

Have you identified goals other than performance
related goals? YES NO

3 Operational planning

Have you drawn up a 'pre planning model' (recognised as a listing of the total work-load required with the hours available to it - nos of training days, nos of competitions etc) YES NO

For how many weeks ahead do you have a detailed programme available? _____

Do you have a graphical illustration of the sub-division of your year's planning? YES NO

Do you have intensity levels, workloads or other forms of activity analysis identified for the season? YES NO

Do you devise exercises, drills, loadings from

Established sources (journals/courses etc)

Experience

'First principles' (new every time)

As a result of testing/monitoring

Your own previous planning

Do you have a written plan for each training episode? YES NO

Do you have a written record of each training episode? YES NO

Are workload factors specified for each activity volume, intensity, duration, complexity)? YES NO

4 Monitoring

Against what do you assess the current progress of the athlete/team?

For how long (on average) would the non-achievement of training targets be allowed to continue before taking steps to alter the situation?

If a training objective is not reached will you:

Delay the outset of the next period

Alter performance expectations

Redo training goals for the next period

Which of the following forms of feedback are you conscious of building into your planning:

Unit to unit (training episode)

Week to week

4/6 weeks to 4/6 weeks

Period to period

Unit to performance expectation

Week to performance expectation

4/6 weeks to performance expectation

Period to performance expectation

Is your planning based on: Intuition alone

Systematic principles and intuition

Systematic principles

At which points in the process (season) do you assess the athlete/teams potential performance:

All the time/constantly

After each training episode

After each competition

After each training period

How significantly would the potential performance differ from the expected before there would be a change of expectations?

Is performance/progress monitored by any of the following criteria:

Achievement of training targets

Achievement of competition targets

Athletes' feelings of satisfaction

Achievement in objective tests

Medical condition

Completion of the programme

5 **Direct Intervention**

At what percentage of the athletes' training episodes are you present?

Does this vary throughout the season? Give details _____

(If a team)

Do team members train on their own? YES NO

Is this directed or planned by you? YES NO

Is this monitored closely? YES NO

Do you always have a predetermined session plan? YES NO

What factors would cause you to alter the predetermined play? YES NO

(prompt: athlete readiness, health, weather, facilities, equipment, feedback from previous unit) _____

Do you involve any of the following persons in your training episode, on a regular basis:

Assistant coach

Physiotherapist

Sport psychologist

Are any of the above involved in the planning of the process? YES NO

Are you actively involved in the competition itself? YES NO

Do you evaluate your own performance? YES NO

When is the strategy for the competition decided upon?

Do you attend all competitions? YES NO

What percentage? _____

Do you have specified performance targets for each competition? YES NO

Do you record the performance in any of the following ways:

Note taking

Video recording

Statistical analysis

Are these records retained in a systematic, accessible form? YES NO

6 Model Application

For how long have you worked with your current squad, group, team, athlete?

Coaches have a number of indirect responsibilities (eg administration, finance, equipment management, recording, planning, gathering data, attending meetings, attending competitions, reading, working for the National Governing Body).

Do any of the following statements apply to your views of this responsibility?

Too time-consuming

Supportive of the process

Restricts work with athletes

Do you have a manager/assistant/other person who assists you with indirect responsibilities? YES NO

Are you satisfied that the coaching process is sufficiently individualised? YES NO

In what ways do you feel that your coaching process has your own particular stamp/philosophy?

4 OPINION RATING OF ELEMENTS OF THE COACHING PROCESS

This questionnaire is designed to find out which parts of the coaching process are considered by you to be the most important.

Please indicate your opinion on the importance of each part of the process by giving it a score, as follows:

10 = of utmost importance

You may use any number between

5 = fairly important

0 and 10

0 = of no importance

		SCORES
Initial contact	Negotiation with athlete(s)	_____
	Agreement on working practice	_____
	Introductory phase of working together	_____
Goal setting	Identifying athletes' wishes	_____
	Analysing requirements of reaching objectives	_____
	Accommodating coach's ambitions	_____
Planning	Devising competition programme	_____
	Situational analysis	_____
	Devising content and workload per planning period	_____
	Extrapolating from plan into schedules	_____
	Devising unit plans (training sessions)	_____
	Using feedback in planning	_____
Direct intervention (contact with athlete)	Feedback from sessions	_____
	- schedule completion	_____
	- athlete response	_____
	- performance outcome	_____
	Continuous comparison to	_____

performance potential _____

Management/organisation of units _____

Recording unit progress _____

Objective monitoring of progress (tests) _____

Coaches' directive behaviour _____

Interpreting unit plans

- exactly _____

- as a guide _____

Inter-personal relationship with athlete _____

(Last minute) contingency planning _____

Administrative and other matters involving athlete _____

Competition

Rehearsal of strategy _____

Being present _____

Coach's re-start check list (checking opposition, environment, equipment, athlete anxiety) _____

Recording performance _____

Competition role (if any) _____

Indirect responsibilities (management of programme)

Counselling athlete _____

Attending to - Finance _____

- Equipment _____

- Facilities _____

- Transport _____

- Relationships with other agencies (clubs, National Governing Body) _____

Availability of support staff _____

- Medical staff _____

- Sports Psychologist _____

- (Trainer) _____

- Manager _____

Awareness of contemporary
developments _____

EXAMPLE OF PLANNED PROGRAMME

APPENDIX B

The following two pages are copies of working papers prepared by one of the coaches in the study sample. These illustrate the more systematic and forward-looking element of planning.

APPENDIX B

EXAMPLE OF PLANNED PROGRAMME

The following two pages are copies of working papers employed by one of the coaches in the study sample. These illustrate the more systematic and forward looking element of planning.

