
What can the coaches learn from the teachers? An example of model-based instruction in a National Governing of Sport coach education programme.

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Abstract

The purpose of this article is to examine the role and nature of Model Based Instruction (MBI) (Metzler, 2005) and discuss how Instructional Models (IM) such as Sport Education (SE) and Tactical Games Concepts (TGC) have become embedded in the pedagogic delivery of a coach education programme for one particular sports governing body (the England and Wales Cricket Board [ECB]). This article will discuss how learning 'how to coach' principles have elements of MBI and reaffirm a view currently held by coaching scholars, such as Jones (2006) that current coach education discourse and physical education discourse actually contain more similarities than differences. This article concludes by recommending coach education teams engage in greater collaboration with experienced teachers of physical education as well as academics in higher education institutes (HEI's) recognised for their expertise in MBI.

Introduction to Model Based Instruction

In his comprehensive text *Instructional Models for Physical Education* (2005), Michael Metzler, provides a detailed insight into the various pedagogical models which are available to the teacher of physical education. According to Metzler (2005) MBI provides opportunities for teachers to adopt alternative Instructional Models (IM). Based largely on pedagogical theory and principles of instructional design, each model provides the teacher with a framework for organizing lessons, presenting content, engaging pupils in learning activities, and conducting assessments in unique ways that inherently require the consideration of all four components of pedagogical content knowing in an integrated fashion (Lund. *et al*, 2008). The notion of *content knowing* is a pragmatic teaching extension of Shulman's (1987) pedagogic content knowledge, which Cochran, Deruiter and King (1993) define as "a teacher's integrated understanding of four components of pedagogy, subject matter content, student characteristics, and the environmental context of teaching" (p. 266).

For many teachers of physical education (and indeed coaches) the process of learning how to teach/coach is complex and one which has been reported previously as a five-stage chronological process (Feiman-Nemser and Remillard, 1996). The first stage involves the basic social and personal skills developed as an infant from their parents. The second stage is a culmination of approximately 17,000 hours of observation whilst acting as a passive learner in a physical education environment. The third phase is the development of pedagogical

content knowledge traditionally through pre-service initial teacher training or coach education courses. At this stage deep-rooted teaching orientations, pre-conceived ideas about teaching / coaching and teaching philosophies may already be well established (Green, 2002). The fourth stage of *learning how to teach* is the first full year of teaching. It has been suggested that despite the quality of the pre-service initial teacher training, teachers develop pedagogic content knowledge while actually 'doing the job' (Feiman-Nemser and Remillard, 1996). In the final phase the teacher develops and establishes structures, roles, routines, and procedures in order to manage physical education classes and to teach his or her pupils more effectively and with greater autonomy.

Examples of Model Based Instruction

The scope to review all of the instructional models is outside the remit of this particular paper, however, for those interested readers Metzler (2005) outlines eight distinctive teaching models; Direct Instruction, Personalised System for Instruction, Co-operative Learning, Sport Education, Peer Teaching, Inquiry Teaching, Tactical Games and Teaching for Personal and Social Responsibility. Direct Instruction is typically referred to as the level of teacher decision making and pupil engagement and can be characterized as 'teacher saying' and 'pupil doing'. According to Metzler (2005) pupils have only a few decisions to make in the learning environment and typically follow a sequential number of steps outlined by the teacher. The Personalised System for Instruction (PSI) model dominated the teaching of psychology and behaviour analysis in the 1970' and 1980's and was initially developed by Fred Keller (Eyre, 2007). The salient features of this model are (1) mastery of course material, (2) use of proctors, (3) self-pacing, (4) stress upon the written word, and (5) use of lessons and demonstrations primarily for motivational purposes. In a typical

PSI unit, course content is broken down into smaller units and progression is based upon a mastery criterion (e.g., 80% or 85% correct). If pupils do not achieve this level of criterion they are required to re-take the test until they achieve the mastery criterion. For a more in depth review of PSI see Hambleton et al. (1998). The Co-operative learning model emphasises learning interactions in the cognitive, affective and psychomotor domains and is regarded predominantly as an achievement and process orientated model. Pupils work together in small teams and support and encourage the work of others and share the responsibility for completing group tasks. As Metzler (2005, p.260) puts it 'It is not that students must learn to co-operate but that students must co-operate to learn'. Sport Education was developed by Darryl Siedentop (1994) and is designed to 'provide authentic, educationally rich, sport experiences for girls and boys in the context of physical education' (p. 18). Sport Education has a number of features which are essentially adopted from organised sport. These include *seasons, group affiliation, formal competition, culminating event, record keeping and festivity*. Sport Education also develops the capacity for learning interaction in the cognitive, affective and psychomotor domains as the pupils are required to adopt roles beyond those of merely performing. Such roles may include; coaching, officiating, analysing and leading. Peer teaching can be simplified as 'I teach you, then you teach me'. Peer teaching can take many forms; however, the learning environment is typically structured around pupils conveying instructions to assist other pupils. Peer teaching is not to be confused with partner teaching or Mosston and Ashworth's (2002) Reciprocal Style. For a more in depth analysis of this model see (Rink, 2003). Inquiry teaching is characterised by involving the learner as a problem solver and has been utilised recently in an educational games context to develop intellectual abilities (Graham, 2004). Inquiry teaching has many similarities with

the Tactical Games Concepts (TGC) model which also encourages problem solving and decision making. In a TGC unit pupils have to solve a number of tactical problems through a series of small-modified games. TGC is discussed in more detail later in the paper, for a more in-depth review see (Bunker and Thorpe, 1982, Griffin, Mitchell and Oslin, 1997). Finally, Teaching for Personal and Social Responsibility (TPSR) was originally developed by Don Hellison in 1978 (Hellison, 2003). Hellison (2003) outlines four central characteristics of TPSR: (1) Integration, (2) Transfer, (3) Empowerment and (4) Teacher-pupil relationship. Due to the holistic and social nature of TPSR learning outcomes can be promoted in the affective domain, however, this model also attempts to integrate motor performance and cognitive knowledge (Hellison, 2003).

The remainder of this article will focus on how one particular NGB (the ECB) has adopted two of these models into the delivery of its coach education programmes and will focus specifically on TGC and SE. Firstly, however, it will be necessary to consider the current structural changes in sport coaching and attempt to place the history of coach education into a wider theoretical context.

Sports Coaching Context

Sports coaching in the United Kingdom (UK) at this time is in a favourable political climate and with the publication of key policy documents (Sports Council, 1991; UK Sport, 2001; Department for Culture, Media and Sport, 2002) currently finds itself in the 'grips' of a debate surrounding its acceptance as a recognized profession (Taylor and Garratt, 2008). Following publication of the government's *Sporting Future for All* (Department for Culture, Media and Sport, 2001) and the government's *Plan for Sport* (Department for Culture, Media and Sport, 2001) a Coaching Task Force assumed

responsibility for addressing a number of concerns highlighted within the coaching community. These included; insufficient paid coaching opportunities, over-reliance on volunteer coaches, inadequate coaching structures and an absence of a nationally recognised, transparent and translatable coaching qualification (Sports Coach UK, 2007).

This final point is note-worthy because for the majority of the 1.2 million sports coaches currently active in the UK, the preliminary step onto the coaching ladder normally involves the successful completion of a NGB coach award (Sports Coach UK, 2006). However, NGB coach education courses have received criticism in the coaching literature for failing to address the requirements of prospective sports coaches. These criticisms include; de-contextualised coaching opportunities (Nelson, *et al*, 2006), an over-reliance on coaching technical and tactical aspects of performance (Knowles *et al*, 2006), course tutors conflicting with the curricula content (Hammond and Perry, 2005), curricular content which detracts from an understanding of the socio-cultural process of coaching and the coaching process (Cassidy *et al*, 2004) and a tendency to focus on the dominant bio-scientific disciplines of sport and exercise science (Jones and Wallace, 2005). Furthermore, evidence suggests that for most coaches a formalised coach education programme actually has very little impact on actual coaching practice and greater impact endeavours include more informal learning opportunities, such as working with more experienced coaches, reflection, and operating within a coaching community of practice (Cushion *et al*. 2003).

Sports Coach UK, the agency largely responsible for addressing these issues, in partnership with a number of NGBs and pivotal policymakers (the Department for Children, Families and Schools, the Department for Culture, Media and Sport,

UK Sport, the British Olympic Association, Youth Sport Trust and SkillsActive) recently developed both the UK Coaching Framework (UKCF) and the United Kingdom Coaching Certificate (UKCC).

The UKCF was unveiled in 2006 and outlines a long-term plan for coaching which includes unambiguous goals over three main phases. The first phase 'Building the Foundation' (2006-08), the second phase 'Delivering the Goals' (2006-12); and finally the third phase 'Transforming the System' (2006-16). In conjunction with the UKCF, Sports Coach UK in union with sports industry professionals developed the UKCC. The UKCC aims to create coach pathways through a five-level framework, which according to Bolton and Smith (2008:79) 'will help professionalise the role of the coach, enable movement between the Home Counties and provide opportunities to move between sports through the inclusion of core components'.

Although these changes have been warmly welcomed by coaching scholars, to date, there has been little written on the impact of these new structures. A recent evaluation conducted on behalf of Sports Coach UK by Marketing and Opinion Research International (MORI) provides support for the new structures from existing coaches, however, a number of issues were also acknowledged, such as increased pressures on NGB's and a lack of collaboration between NGB's and individual sports (Bolton and Smith, 2008).

The ECB UKCC 2

The primary aims of the ECB UKCC 1 and 2 are to prepare cricket coaches with the necessary skills to introduce and develop cricket in a safe and enjoyable way, develop fundamental movement skills, develop and improve players, enhance coaching skills, knowledge and qualities and demonstrate competences against the UKCC standards for coaches (ECB, 2007). The ECB

UKCC 2 concentrates for the most part on the necessary 'how to coach' pedagogic skills and places less of an emphasis on the technical and tactical elements of performance (the 'what to coach' skills). The structure of the ECB UKCC 2 award includes eight modules, of which module 3 'Coaching Children and Young Players' and module 7 'Coaching Tactical Play' contain a tactical games focus.

Tactical Games Concepts in the ECB UKCC 2

During the delivery of both of these modules course tutors provide coaches with a series of short introductory theory sessions, which tend to focus on conceptualising the role of the coach and placing TGC within a wider pedagogical context. Although these efforts are to be applauded, it does however, raise a number of questions. For instance, how qualified is the coach education tutor in delivering theoretical knowledge on TGC? Secondly, how much experience does the coach education tutor have in the practical application of TGC? And finally how congruent is a tactical games focus with course tutors' individual coaching philosophies?

The findings from a previous study (Roberts, 2007) suggest the coach education tutor(s) were not confident in the pedagogic requirements of TGC and indeed found several difficulties implementing the TGC model. These are mentioned in greater detail, in a separate paper (Roberts, 2008 in review); in essence they included the appropriate use of questioning and coping with the demands of a pedagogic model which conflicted with their established coaching philosophy. Moreover, field notes and observations performed during the study suggested the lead-tutors were insufficiently qualified to comment with authority about the theoretical components of TGC.

The practical application of TGC is principally lead by a course tutor via the use of small modified games, thus allowing the coaches opportunities to develop experientially their knowledge and understanding of TGC. This includes involvement as a player, and also by assuming the role of the coach. Coaches are encouraged to consider a number of features congruent to TGC, such as how the game is to be modified and the appropriate use of questioning. To support the coach in their appreciation of TGC each coach is provided with a number of resources, these include; a pocket A5 size coaching pack, with a number of tactical games, a coaching DVD and a comprehensive coaching handbook.

Quantitative questionnaire data obtained from the (n=46) coaches who participated in the study reported TGC as one of the 'best aspects' of the course. However, the open-ended qualitative responses from the questionnaire revealed the coaches were left confused with some aspects of TGC such as; when to introduce technical skills, the use of questioning and how to access appropriate resources in the form of modified games. Moreover, observations recorded during the course, revealed how tutors were insufficiently prepared to provide answers and solutions to the questions posed. In addition, two of the tutors expressed concerns regarding the omission of technical content and were uncomfortable with the tactical demands of TGC as it appeared to conflict with their individual coaching philosophy.

Sport Education in the ECB UKCC 2

With the exception of Reid (2003), there is little evidence of Darryl Siedentop's (1994, 2004) SE model appearing in the sports coaching or coach education literature. Again, this is a somewhat surprising finding, considering the unique features of the SE model are to contextualise the sporting experience and attempt to provide performers with a more realistic and meaningful sporting

environment (Reid, 2003). Although SE is not an assessed component of the ECB UKCC 2 and is not formally recognised in any of the ECB literature, the instructional format adopted by the coach education team referred to in the earlier study, contains all the hallmarks of the SE model. For example, during the practical coaching sessions, the coaches were assembled in teams, where they remained throughout the duration of the course. Each coach assumed a different role each week, examples included; warm-up coach, head coach, player, official, analyst and observer. During the duration of the course each coach was responsible for leading; a warm-up, small coaching episodes, officiating or organising small modified games. In other words the coaches were exposed to a number of the salient features of a sports culture and were consequently provided with opportunities to experience sporting roles other than merely one of a performer. Although not all the features of SE were evident (notably collecting of points, a seasonal nature and festivity) it was interesting to note the adoption of several SE principles by the coach education team. Due to the favourable reports of SE in the physical education domain and its growing reputation for developing physically competent, literate and enthusiastic pupils (O'Donovan, 2003), it is a logical extension for community sports clubs and coaches to be aware of the potential benefits of SE. As Reid (2003:13) points out, 'the closer community sports clubs and schools can get to the outlined features of the sport education model, the more realistic and meaningful the experiences for pupils may become'.

A central feature of the SE model when applied in a physical education environment is the leadership opportunities offered to pupils in the form of leading small coaching sessions. This involves a retreat from centre-stage by the teacher and the teaching role devolving into one of facilitator (Hastie, 2000). In the physical education literature there has been some debate

as to how qualified pupils are to deliver effective coaching sessions (Hastie, 2000; Wallhead and O'Sullivan, 2007). In order to overcome these barriers on the UKCC 2, however, the coaches are provided with small A5 task cards, which include organisational information such as equipment and layout; coaching points, and differentiated activities to help players of differing abilities.

As mentioned previously the decision to embed MBI into NGB coach education programmes is to be applauded and by encouraging coaches to think of 'learning' and their players as 'learners' is clearly a positive attempt to place the player/athlete and not the coach at the heart of the coaching process. In her book *'Athlete Centred Coaching'*, Lynn Kidman (2005) presents a number of vignettes from experienced coaches in New Zealand, and illustrates how they have adopted MBI at the elite level. Although her focus lies predominantly on TGC, it does provide additional evidence of the emerging role of MBI in sports coaching environments. However, research conducted in the physical education domain suggests that, in order to be effective in the delivery of models such as TGC and SE practitioners need to be experienced in observation and analysis (Hastie, 2000) as well as open to the idea of an alternative coaching orientation (Light, 2004).

The role of HEIs and teachers of physical education in coach education

A possible solution to this problem may be in the adoption of appropriate continuing professional development (CPD) opportunities for coach education teams. Such programmes could be jointly co-ordinated by experienced teachers or colleagues in Higher Education Institutes (HEI) familiar with the practical and theoretical application of MBI. If the content of coach education courses are to continue with the inclusion of essentially educational concepts such

as TGC and SE, then it would appear logical that greater collaboration exists between HEI's, teachers of physical education and NGB's. Currently, HEI's have been consulted over specialist input at UKCC levels 4/5, where individual NGB's perceive their coach education teams have insufficient knowledge in specific areas (Taylor and Garratt, 2008). Extending this to UKCC levels 2/3 may also be worthy of consideration.

In the UK there has been a recent expansion and explosion in the number of HEI's offering undergraduate sports coaching degrees and many of these institutions are recognised nationally for their excellence in sporting pedagogic delivery and research. Moreover, many of these leading institutions also offer undergraduate and post-graduate opportunities in physical education; as the pedagogic similarities between physical education and sports coaching continue to increase and many coaching courses move away from the traditional *coaching science* it may be prudent for these institutions to examine their module content and consider greater collaboration and sharing of expertise. The evidence collected from recent ECB UKCC 1 and 2 courses suggest both coach education teams and coaches would benefit from the input of teachers or teacher educators familiar with the delivery MBI. Moreover, if teachers or coaches are to recognise the potential of their pupils or athletes a greater collaboration between teaching and coaching may facilitate a 'legitimate peripheral participation' in sport and physical activity as 'communities of practice' (Penney, 2006, pg.26). The notion of a tension existing between traditionally two contradictory philosophical viewpoints however, should not prevent such a debate taking place, and as Penney (2006) argues 'more than at any time in history, coaching and teaching can now be viewed as more similar than different and, furthermore, in need of closer connection' (p.27).

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