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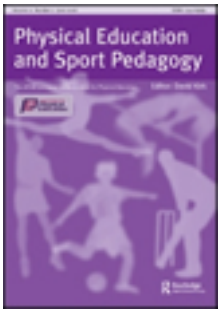

**Physical Education and Sport Pedagogy**
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/cpes20

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Published online: 11 Oct 2010.

**To cite this article:** Stephen Harvey , Christopher J. Cushion & Ada N. Massa-Gonzalez (2010) Learning a new method: Teaching Games for Understanding in the coaches' eyes, Physical Education and Sport Pedagogy, 15:4, 361-382, DOI: 10.1080/17408980903535818

**To link to this article:** http://dx.doi.org/10.1080/17408980903535818

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*Physical Education and Sport Pedagogy*
Vol. 15, No. 4, October 2010, 361–382

Routledge
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# Learning a new method: Teaching Games for Understanding in the coaches' eyes

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(*Received 29 July 2009; final version received 15 October 2009*)

*Background*: Coaches' knowledge and actions are both the product and manifestation of a personally experienced involvement with the coaching process; they are linked to the coach's history and both are attributable to how they were learned. Changing established coaching practice can be problematic, particularly as coaching lacks a critical tradition, and coaches are more likely to be seen sticking with 'safer', 'tried and tested', traditional methods. Butler recently noted in 2005 that approaches such as Teaching Games for Understanding (TGfU) offer a way for practitioners to challenge their practice, move from a 'comfort zone' and open themselves up to self-reflection.
*Purpose*: With this in mind, the purpose of this study was to explore how two interscholastic soccer coaches incorporated TGfU into their coaching practice.
*Methods*: Two interscholastic soccer coaches; Brad, an experienced Head coach of the program and coach of the varsity team (n = 18), and Jeff, a first-year coach in the program and the coach of the first-year team (n = 16) (both pseudonyms) and their players participated in the study. The study was conducted over the length of one 12-week interscholastic soccer season and involved a four-week pre-observation followed by an eight-session TGfU soccer unit focused on the defensive off-the-ball aspects of performance. Data collection was conducted in three stages: (1) participant observation of the two coaches and their players using Metzler's benchmarks as discussed in 2000; (2) data from these observations were used to construct questions for semi-structured interview schedules with the two coaches and players (n = 3) following each TGfU session; and (3) an end-of-unit interview with the two coaches. The data were analysed using the procedures and techniques of grounded theory. Following analysis, three overall themes emerged: (1) coach perceptions of using TGfU; (2) coach pedagogy; and (3) players' perceptions.
*Results and discussion*: Findings showed that the two coaches' values, beliefs and dispositions were challenged by the TGfU approach, and TGfU was a way in which the coaches were able to recognize potential areas for improvement and development in their coaching practice. In addition, the institutionalized context of the coaching practice made it difficult for Brad to develop his use of TGfU while Jeff, in contrast, observed early in the intervention how TGfU could help develop not only his own coaching practice but advance player learning through the appropriate use of questioning and stepping back.
*Conclusions*: (1) While this study showed that both coaches altered their coaching practice to a varied degree by using TGfU, neither coach totally adopted TGfU into

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ISSN 1740-8989 print/ISSN 1742-5786 online
© 2010 Association for Physical Education
DOI: 10.1080/17408980903535818
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their coaching practice and it had not influenced them sufficiently to impact their coaching identity. (2) There is scope for larger scale and/or longitudinal coaching interventions that attempt to move sports coaches toward more athlete-centred coaching practices. As a result, a case could be made for more TGfU/Game Sense within formal coach education, not only as a means to develop athlete-centred coaching, but also as a way for coaches to understand theories of learning that underpin practice.

**Keywords:** Teaching Games for Understanding; coaches; coaching practice; soccer

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## Introduction

Coaches' knowledge and actions are both the product and manifestation of a personally experienced involvement with the coaching process; they are linked to the coach's history and both are attributable to how they were learned (Cushion 2006). Coach learning, and therefore knowledge and practice, remains largely based on experiences and the interpretation of those experiences (Cushion, Armour, and Jones 2003; Cushion 2006; Gilbert and Trudel 2006). This is despite the implementation and availability of formal coach education programmes. Indeed, formal coach education remains largely ad hoc and low impact in comparison to coaches' wider experiences and subsequent collective understandings (Nelson et al. 2006; Gilbert and Trudel 2006). Consequently, coaches' resulting practice is 'guided primarily by tradition, circumstance and external authority' (Tinning 1988, 82; see also Williams and Hodges 2004). Indeed, coaching has established a 'traditional' pedagogy or practice that is characterised by being highly directive or autocratic, and prescriptive in nature (Williams and Hodges 2004; Potrac and Cassidy 2006). This perspective is supported by behavioural research that has tended to find 'instruction' as the largest behaviour utilised across a range of sports including soccer (e.g. Miller 1992; Millard 1996; Kahan 1999; Cushion and Jones 2001; Potrac, Jones, and Cushion 2007). In addition, coaches' practice tends to be underpinned by a linear, process-product approach to learning, where 'skills' are to be mastered first and form the basis for games play (Cassidy, Jones, and Potrac 2009).

This has been brought into stark relief in a recent study of elite youth soccer players. Williams, Yates, and Ford (2007) studied 27 youth coaches, working at three different levels of performance from elite academies to competitive clubs. The research looked at 81 different practice sessions with players aged between U9 and U16. While there were differences in practice activities between performance levels, across the entire sample almost 50% of practice time was spent in physiological training (i.e. warm-up, cool-down, conditioning, stretching activities) and technical practice (i.e. repetitive drills and grid work focused simply on technical development under no pressure). In contrast, a relatively small proportion of time was spent in practicing skills under pressure in possession, and small-sided games.

Changing established coaching practice can be problematic particularly as, not unlike physical education (Cushion, Armour, and Jones 2003), coaching lacks a critical tradition, and coaches are more likely to be seen sticking with 'safer', 'tried and tested', traditional methods that prove their knowledge and expertise (Potrac, Jones, and Armour 2002; Coakley 2004; Jones, Armour, and Potrac 2004; Cushion, Armour, and Jones 2006; Cushion and Jones 2006; Potrac, Jones, and Cushion 2007; Cushion 2007, 2008, 2009). 'The consequence of such action is that athletes are, in turn, increasingly socialized into expecting instructional behaviours from coaches, and thus resist other coaching methods' (Potrac, Jones, and Cushion 2007, 40) as these are deemed consciously, or subconsciously, to be associated with performance accomplishment. Thus, practice becomes an historical

and traditional thread where experiences are a powerful, long lasting, and continual influence over pedagogical perspectives, practices, beliefs and behaviours (Cushion 2008, 2009). The main driver for practice therefore becomes tradition or uncritical inertia (Fernandez-Balboa 1997; Cushion, Armour, and Jones 2003).

A catalyst for changing what coaches do requires that they recognize the assumptions that underlie and inform their practice. Indeed, Light (2008) argues that is necessary to be aware of the assumptions about learning that underpin any method of teaching, particularly when such assumptions challenge beliefs about learning. Alternate approaches to practice have been suggested as one means to challenge beliefs about learning (Light 2008) and subsequent received wisdom about what good coaching is. Indeed, exposing coaches to approaches such as guided discovery, problem solving and Teaching Games for Understanding (TGfU) might facilitate such a response (Cassidy, Jones, and Potrac 2004; Butler 2005; Light 2008; Potrac and Cassidy 2006). In particular, TGfU has been utilized with teachers to challenge established practices and beliefs (Butler 1996) and has been shown to challenge entrenched cultures within physical education teacher education programmes (Butler 2005; Howarth 2005; Light and Butler 2005).

TGfU is important as a vehicle for changing practice because it is a model of teaching that requires the learner to be at the centre of the learning process, repositioning the role of the coach to one of a facilitator (Dyson, Griffin, and Hastie 2004), thus challenging traditional coaching practice. TGfU was proposed by Bunker and Thorpe (1982) but also has roots in the work of Mahlo (1974) and Deleplace (1969, 1974) where they investigated the modelling of practice in team games. From the work of Mahlo and Deleplace, a school of thought emerged that recognized cognitive processes to be necessary for the correct execution of motor skills within game situations (see Gréhaigne, Richard, and Griffin 2005 for a review). The roots of the tactical approach in the United Kingdom were largely a result of Bunker and Thorpe's dissatisfaction with the 'skills first' orientation adopted in school physical education programs (see Werner, Thorpe, and Bunker 1996 for a review). Bunker and Thorpe (1982), as Mahlo and Delelplace, were interested in the effective integration of skills into contextualized situations.

Therefore in TGfU practice starts within the context of an *initial game form*, or *game concept*. The *initial game form* is interrupted in order for the coach to ask athletes questions regarding which elements of game play the athletes need to improve and address a *tactical problem*. To place emphasis on this tactical problem the coach can add extra challenges to the game by adopting the pedagogical principle of *modification exaggeration* (Thorpe, Bunker, and Almond 1984; Holt, Strean, and Bengoechea 2002), for example, adding restrictions such as a no-go zone in the centre of the playing area to force the players to switch the point of attack, thus emphasizing the tactical problem of scoring. Skills/techniques are then introduced 'second' or 'when needed' and 'within the context' of this *initial game form*. Therefore, the coach can have the players break out into skill development practices that are game-related and relevant to the inherent weaknesses that have been highlighted to the coach when assessing players in the *initial game form*. The practice session then culminates with an *open game* (no restrictions on players/teams), where coaching and questioning is still focused on the initial *tactical problem* introduced by the coach after the *initial game form*. TGfU has a core belief of empowering learners (Butler 2005) and places the teacher as a co-learner or partner in learning (Davis and Sumara 1997).

In order for players to be prepared for the challenges the game brings, coaches need to structure a learning environment that is focused on random, distributed and variable practice situations. With its focus on the learner, the TGfU approach centres on how the teacher/coach can help the learner solve the games problems rather than focusing on what is

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wrong with the learner's performance (Butler 2005). As Light and Fawns (2003) articulated, 'knowing the game' is to play it and demonstrate knowledge-in-action (Schön 1983). For this to occur it is imperative that the coach can prepare and manage an effective learning environment so as to allow the players to engage in the 'ongoing conversation' of games that involves the interplay between action and language (Light and Fawns 2003). In this sense, TGfU is a useful vehicle for challenging coaches as it not only uses game-specific activities instead of 'drills', but also has at its heart the use of questioning. Rather than simply telling athletes what to do the coach has to use questioning, prompts, and feedback that lead the athletes to discover solutions to various sport-related problems (Potrac and Cassidy 2006).

Despite the many potential benefits of using TGfU espoused in the literature there remains a dearth of research specifically assessing coaches' use of TGfU (Light 2004, 2005; Harvey 2005). Perhaps unsurprisingly, the majority of research has considered physical education (PE) teacher's experiences (Butler 1996; Turner 1996; Barrett and Turner 2000; Brooker et al. 2000; Turner, Allison, and Pissanos 2001; Light 2003a, b, c; Gurvitch, Metzler, and Lund 2008). This research has usefully begun to identify some themes relating to teachers' and coaches' experience. This included confirmation that TGfU offered a new way of thinking about teaching and coaching in terms of conceptualizing understanding of skills and tactics. In addition, the pedagogical expertise and knowledge required to implement TGfU is significantly challenging and can lead to frustration. While coaches are repositioned in practice sessions, to stand back, observe more, act as a facilitator and to be less directive, paradoxically, they have to come out of their 'comfort zone' (Barrett and Turner 2000; Howarth 2005) to see the big picture, and to learn when to ask and when to tell (Rovegno 1998).

Taken together this research lends some support to Turner and Martinek's (1999) assertion that TGfU should be used as an approach to help teachers/coaches develop a wider range of pedagogical skills and more expansive content knowledge. Butler (2005) also noted that TGfU offers a way for practitioners to challenge their practice, move from a 'comfort zone', and open up to self-reflection. Moreover, Light (2004) noted the benefits of using TGfU to accomplish this aim when interviewing six coaches on their use and experiences of using game sense (an Australian adaptation of TGfU). Light concluded that: 'Research on coaches' experiences using tactical approaches such as GS would further enrich our understanding of the complexity in learning in and through sport' (2004, 130). However, there remains a considerable challenge to address embodied and unarticulated beliefs about learning (Light 2008) and coaching. This is further complicated when coaches often have low self-awareness (Cushion 2009) and use the language of an alternative approach but retain a 'traditional' method of coaching (Davis and Sumara 2003). These issues notwithstanding, there is some evidence of TGfU impacting learning in recent intervention studies in physical education, college and coaching settings (e.g. Holt, Ward, and Wallhead 2006; Harvey et al. 2010; Lee and Ward 2009; MacPhail, Kirk, and Griffin 2008). Such intervention requires moving beyond explanation and justification, and actively encouraging discussion, conscious thinking, and reflection on practice assumptions (Davis and Sumara 2003; Light 2008).

While research into physical education teachers is enlightening, coaches do not exhibit the same pedagogical characteristics as teachers (Hardin and Bennett 2002; Nash and Collins 2006). These differences have been ascribed to differences in the use of knowledge in practice for the different roles (Kreber 2002), as well as the considerable differences in training times for PE teachers and coaches. Whatever the cause, these findings act as a reminder that we cannot blithely assume the transfer of research findings from one context to another. Indeed, to fully understand the holistic nature of coaching, it has been argued that research

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focus should be given to the world of individual coaches, and how they operate within their given contexts (Potrac, Jones, and Armour 2002). To this end, research should address individual coaches' interpretations of their experiences and the process by which meanings and knowledge are used to guide actions (Potrac, Jones, and Armour 2002).

The purpose of this study was to explore the perceptions and experiences of two interscholastic soccer coaches incorporating TGfU into their practice. The TGfU intervention was used as a tool to examine and challenge the coach's assumptions about learning and coaching. The study placed emphasis on the, sometimes contrasting, individual interpretations of the process of TGfU model adoption by the two coaches, one novice and one more experienced.

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## Method

### *Case study research*

Data were collected using a case study methodology. Berg (2007) defines a case study as 'a method involving systematically gathering enough information about a person, social setting, event, or group to permit the researcher to effectively understand how the subject operates or functions' (283). The purpose of the case study was to gather 'rich, detailed and in-depth information' (283) on a single phenomenon and 'uncover the manifest interaction of significant factors characteristic of this phenomenon' (284). In this way, the researcher 'is able to capture various nuances, patterns, and more latent elements that other research approaches might overlook' (284) and tends to focus on a 'holistic description and explanation' (284) of the phenomenon studied.

### *Context of high school sport in America*

An American high school interscholastic soccer program and its coaches acted as the case study context. The school had two teams; one team will be referred to as the 'varsity' team and one the 'first-year' team. The difference between these two teams is based on the level of the players' previous experience. The experiences of the varsity teams' players were predominantly competitive clubs and interscholastic soccer. These experiences were characterized by participation in structured coaching programmes that had, as a feature, deliberate practice (Côté, Baker, and Abernethy 2003). In contrast, none of the players in the first-year team had played club soccer. Their previous experiences were limited to recreational programs such as the American Youth Soccer Organization (AYSO). Typically these programs consist of parent coaches, and a focus on deliberate play (Côté, Baker, and Abernethy 2003).

The school's varsity team competed in the state championships, firstly in a district league where the performance in this league would determine whether they made the state 'play-offs'. The school had previously been successful in these state championships winning the state title and the district title in past seasons. The first-year team competed in various competitive matches, but these were not tied to any particular district championship, and the focus of the matches was to give them some initial experiences of competing in 11 vs. 11 matches for the high school.

The value of high school interscholastic sport in the United States is well established with extensive media coverage in daily newspapers, producing reports, statistics and thoughts about matches being played. Coaches and players are also interviewed as to their thoughts on matches and team performances. In addition, attendance at high school

sporting events are also large (e.g. over 5000 spectators attend the state high school soccer final) especially when games are played on Friday evenings. High school sport, thus, offers a way of bringing together local communities, and these communities celebrate the achievements of their high school sports teams and provide a sense of spirit and pride among students, fans, schools and communities. Moreover, the school and the state athletic activities association see 'athletics' as part of the valuable education of youth and adolescents and are integral to the school curriculum with the impact of values taught through these programs being classed as 'immeasurable' (Oregon Schools Activities Association 2009).

### *Participants*

Two high school coaches participated in the study, both of whom had played soccer competitively in school (high school/college). The varsity team coach (Brad, pseudonym) was 33-years old, and the highest playing level he reached was playing college soccer at a Division 3 university in the north-western United States. He had seven years of practical coaching experience in the same high school soccer program, but had no formal coaching qualifications. Brad was also employed full-time in the same school as a school counsellor.

The first-year team coach (Jeff, pseudonym) was 20-years old, and the highest playing level he reached was club soccer. However, he had reached the United States Youth Soccer Association National Championship finals with his club team, and decided not to play soccer at college. Jeff was in his first year of coaching in the high school soccer program and had no formal coaching qualifications. He was also a full-time undergraduate student majoring in business at a local university.

The team coaches agreed to undertake a course of professional development by learning to coach using the TGfU approach before the pre-season period of training. The players were also recruited for the study before the pre-season. Their ages ranged from 14- to 18-years old. Informed consent was received from all participants using standardized procedures for the protection of human subjects, approved by the Institutional Review Board at a large Pacific Northwest University in the United States.

### *Intervention procedure*

In preparation for the intervention three 90-minute meetings were conducted between coaches and research staff. These consisted of: week one – an initial meeting to establish an overview of each session's content (the concepts of defensive off-the-ball performance was the topic for the intervention) and to take into account the needs of the players; week two – watching a video and working through a book chapter;[1] week three – a follow-up meeting which was interactive throughout allowing coaches the opportunity to ask questions pertaining to session content and any other issues about the TGfU approach. As a result of the work conducted during the initial preparation and training phase, a 'coach's packet' was developed and given to the coaches. The packet consisted of eight sample scripted TGfU session plans.

The intervention lasted the length of the high school soccer season (not including the play-off period), which was from August until to the beginning of November (12 weeks) and had two distinct phases. Phase one was a pre-practice phase that was conducted over four weeks, and phase two consisted of eight practice sessions and seven assessment sessions completed by each team (see Table 1). The team practiced each day from mid-August before formal schooling began, and daily after school once school began at the start of September.

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Table 1. Schedule of sessions for the teams involved in the study.

| Session Number | Session Content |
|---|---|
| 1–4 | Baseline Assessment Games (B1–B4) |
| 5 | Closing Down (FP) |
| 6 | First Intervention Assessment Game (INT-1) |
| 7 | Marking (POP) |
| 8 | Covering (POP) |
| 9 | Dealing with Crosses (Exaggerated SSG) |
| 10 | Goalkeeper Communication (Exaggerated SSG) |
| 11 | Second Intervention Assessment Game (INT-2) |
| 12 | Defending the Final 3rd (POP) |
| 13 | Covering 2 (Exaggerated SSG) |
| 14 | 11 vs. 11 Game |
| 15 | Pressuring (Exaggerated SSG) |
| 16 | Third Intervention Assessment Game (INT-3) |

Notes: B1–B4, Baseline Assessment Sessions; INT-1, Intervention Assessment Session 1; INT-2, Intervention Assessment Session 2; INT-3, Intervention Assessment Session 3; POP, phase of play; FP, functional practice; SSG, small-sided game.

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For the first two weeks of phase one, and before the study's actual practice sessions, the first author attended training and joined in as a player at some of the practice sessions. This was a two-way process that enabled the coaches and players to become familiar with the researcher, and conversely, enabled the researcher to become familiar with the participants by learning players' names and observing their playing ability and level. The type of training typically observed consisted of warming-up, fitness work, basic skill drills, and some game play, which was not generally associated with the content of the skill drills completed beforehand. Indeed, the coaches and their sessions were observed and it was noted that they typically played games during training, but neither coach had any previous knowledge or practice with the TGfU approach. In the subsequent two-week period the research team completed baseline game performance assessment sessions (see Harvey et al. 2010).

The second phase consisted of eight practice sessions completed by each team over an 8-week period. Butler (1996) acknowledged that teachers indicated the need for structured support throughout a process of change. Therefore, in this study the two coaches were supported throughout the intervention by the first author. The first author was also present at each of the practice sessions and clarified any issues with the session plans prior to their delivery, and supported the coaches throughout.

Intervention sessions were focused on coaching the defensive aspects of performance (see Table 1) related to the 'tactical problem' of preventing scoring by defending space in the field (Mitchell, Oslin, and Griffin 2006).

The general format for each of the coaching sessions closely followed the format outlined by Metzler (2000) and den Duyn (1997):

(1) Introduction to 'tactical problem' and 'initial game form': make suggestions to, and ask participants 'why' they think the tactical problem is important to them being able to successfully play the game;
(2) Use of effective communication skills;
(3) Instruction: use of effective instructional techniques during game play. Instructor thinks about 'when to ask' and 'when to tell'; 'where and when' to introduce skill practice; 'when' to stop the whole group or small groups for instruction;

'how' to modify 'initial game form' by shaping, focusing or enhancing play (Launder 2001);

(4) Review of lesson content and 'tactical problem' with questions, and provide an introduction to the next session.

Each session began with an *initial game form* outlined in the coach's packet which was followed by observation and questioning by the coach. Further challenges and/or progressions to the initial game form were also imposed by the coach as the session unfolded (using techniques highlighted in (2) and (3) above). The intervention sessions were different to both teams' usual coaching sessions that had followed a traditional teaching approach of (1) warm-up, (2) skill practice, (3) modified game, and (4) game.

Each session lasted for approximately 45–60 minutes, about half of the regular length of the team's usual training session and sessions included four small-sided games (SSGs; smaller representative/exaggerated versions of the full-sided game of soccer using two goals), three phases of play (POP; an attack versus defence game into one goal) and one functional practice (FP; a small game in a certain section of the field that focuses the tactical/technical abilities of the players; see Table 1). The research team set up the seven assessment sessions for the purposes of evaluating the development of the players' off-the-ball game performance. The two team coaches just observed during these assessment sessions which lasted approximately 10 minutes in length (see Harvey et al. 2010).

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### *Data collection*

Within the case study, data were collected using participant observation and interviews with both coaches and players. All of the sessions were observed live and videotaped.

#### *Participant observation*

Participant observation involved the observation of the coaches and players during the course of the eight intervention sessions. The extent of participation varied from spectator to assisting the coaches with the organization of sessions and advising coaches during the practices (as described above). During sessions, coaches were supported by the research team who answered questions regarding the up-and-coming session, or forthcoming sessions in the coach's packet. The coaches also asked the researchers during sessions about how to adapt the session to meet the needs of the players to 'get the game right' (Thorpe and Bunker 2008). For example, in session three of the eight-session intervention, Jeff asked the first author constantly about why the session was not working, if he was doing anything wrong and what his options were in adapting the session to get a good game going. In this particular case, Jeff was given options to choose from and the session was constantly adjusted ending with Jeff deciding to use the pedagogical tool of the 'coach as a player' to develop the players understanding of 'covering'. Importantly, the researcher only offered options to the coach and never actively coached the teams.

Comprehensive field notes were produced and the sessions were re-watched on video to add detail to the notes and check the comprehensiveness of the observation. To ensure that field observations were focused a field observation sheet was drawn up to reflect Metzler's (2000) TGfU benchmarks for both the coaches and players. For the coaches this observation sheet included information about when the coach manipulated his options of when to employ game-centred or technique-led coaching, how the coach took a 'step back' to observe, and his use of questioning – whether he followed the game sense

sequence when coaching, and whether he was adhering to other benchmarks such as engaging the players quickly, the frequency of question-and-answer sessions and progression he used, how he allowed students to make decisions during practice sessions, etc. Although these observation sheets were completed 'live' to ensure that nothing was missed by the first and third author, video-taped records of each of the sessions from each coach were watched to add to the robustness of their live observations (see Harvey et al. 2010).

### *Interview*

After each session a short interview was conducted with the coaches and players (n = 3). These were based on observations from the session, with the purpose of seeking clarification on what had been observed, to understand something of the cognitive process the coaches and players had been engaged with, and to get something of an overall perception of each session.

At the end of the intervention both coaches were interviewed. Semi-structured interviews drew questions from the observations of the sessions, the previous interview transcripts, and the broader TGfU literature. These interviews not only sought to gain the coaches' perceptions of the intervention, but probe further their assumptions concerning learning and the structure of practice.

Integrating interviews and field observations facilitated an understanding of the intervention from the participants' perspective, what motivated participants' behaviour, and what meaning the intervention had for the participants (Griffin and Templin 1989; Smith and Cushion 2006). Indeed, such triangulation of research methodologies (i.e. using two or more ways to gather data) has been previously recommended (Denzin 1989; Patton 2003) and helps to accurately present findings from the participant's perspective (Griffin and Templin 1989; Smith and Cushion 2006).

### *Data analysis*

The qualitative data were analysed based upon the procedures and techniques of grounded theory (Côté et al. 1993; Smith and Cushion 2006). Grounded theory is an inductive methodology for developing theory grounded in data systematically collected and analysed (Saury and Durand 1998). It consists of two main operations: (1) breaking down the data into meaningful units, and (2) grouping units with similar meanings into broader categories. The objective of this analysis was to organise and interpret the unstructured qualitative data obtained from the interviews with the coaches.

The first step involved a detailed line-by-line examination of the field notes and interview transcripts and involved highlighting sections of text into meaningful and significant excerpts. Tesch (1990) defined these 'meaning units' as a 'segment of text... comprehensible by itself and contains one idea, episode or piece of information' (116). Second, similar features between meaning units were identified. This procedure, referred to as 'creating categories' (Côté et al. 1993; Smith and Cushion 2006), involved comparing meaning units and grouping them together to organise common meaning units into distinct sub-categories. Sub-categories were named according to the common features that all its meaning units shared (Côté, Salmela, and Russell 1995). For instance, the following meaning unit was part of a sub-category labelled transfer of learning (see Tables 2 and 3):

> The process of learning in the match situation is going to be a lot more successful and effective than just skill learning and skill because part of the skill is to being able to master it and do it in the match. (Brad, varsity team coach)

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Table 2. Emerging themes and sub-categories included within each following the inductive analysis.

| Major theme | Sub-theme |
|---|---|
| Coach perceptions of using TGfU | • Support of research team<br>• Transfer to game<br>• Conflict of agendas between intervention and 'normal practice'<br>• Work ethic and motivation of the players<br>• Personal life vs. coaching<br>• Complex vs. simple intervention games |
| Coach pedagogy | • Questioning<br>• Practice using the model<br>• Planning<br>• Old vs. new coaching style<br>• Knowledge<br>• Assessing players<br>• Stepping back<br>• Curriculum |

Table 3. Raw data examples from emerging themes and sub-categories included in theme 1: coach perceptions of using TGfU.

| Raw data | Sub-theme | Major theme |
|---|---|---|
| . . . they are using the stuff that they are learning. You know one of the biggest things I saw was actually, we had kind of defensive over load when one of the outside defense got beat, we had to work on covering for him. . . I can see that happening all the time now. . . A person will get beat and they will come over and help out. (Jeff, first-year coach) | Transfer to game | Coach perceptions of using TGfU |
| I think that also that there were other things going on outside of training sessions like matches and how we were playing in our matches erm that that affected the training sessions. (Brad, varsity coach) | Conflict of agendas between intervention and normal practice | |
| The ones. . . that were easy to draw up and say ok this is what we are going to do or be able to spell it out and then for the kids to understand it straight away were easier. The ones that had multiple boxes with multiple ideas were difficult and they did not have the patience for it, I was ok with it but I would rather do something simpler and then build in the pieces later rather than starting with a complex drill and trying to run off without it especially as it was new. (Brad, varsity coach) | Complex vs. simple modified games/situated practices | |

As the data analyses proceeded, a further level of interpretation emerged that compared sub-categories to organise them into larger and more inclusive themes (Côté, Salmela, and Russell 1995; Smith and Cushion 2006). For example, all the sub-categories that referred to

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questioning linked to planning and were assembled into a more embracing and broad theme labelled Coach Pedagogy.

Following analysis, three overall themes emerged: (1) coach perceptions of using TGfU; (2) coach pedagogy; and (3) players' perceptions. The sub-categories represented within themes 1 and 2 which pertained to the coaches are summarised in Table 2 and examples of raw data from one of these two themes is presented in Table 3.

## Results and discussion

The following section provides a brief overview of the coaches' pre-intervention practice, observed during phase one. This is followed by a discussion of the main themes: coach perceptions, and coach pedagogy. Coach perceptions include aspects of transfer, conflict of agendas and complex vs. simple games. The coach pedagogy theme focuses on the coach's ability to use pedagogical tools within the TGfU approach and specifically addresses the pedagogical tools of planning and questioning. Obviously, while these sections are presented separately there is an inherent overlap between the coach's perceptions and their use of the TGfU pedagogy.

### *Pre-observations*

Data collected in phase one of the study outlined coaches engaged in traditional coach-led practice with a skill/drill emphasis coupled with physical conditioning, an approach not uncommon in soccer coaching (Williams, Yates, and Ford 2007). Although games were played at the end of sessions it was unclear how these were connected to the other aspects of the session. Typical practice was to play a 'windows' game at the end of practice, and Brad always joined in this game as these data illustrate:

> Brad is using a 'windows game' at the end of practice. There are three teams; two play against each other while the third is spread around the edge of the practice acting as 'windows' or wall/bounce pass opportunities for the two teams. The players are just playing and Brad has joined one of the teams to play. Brad is not intervening in the practice, and it is not clear how this links to the theme of the session observed. (Field notes)

At the outset of the intervention Brad was initially dismissive of the TGfU approach suggesting it was 'nothing new' and 'it just reinforced what we were already doing'. This perception was perhaps based on the fact the he played games in practice, the difference being he was simply 'playing games' (Metzler 2005, 419). Importantly, Brad was not connecting the session content with the game at the end, and he was not using any games or game forms at the beginning of sessions to develop players understanding before skill work. Skill work preceded game play and this skill work was frequently disconnected from the one 'windows' game he eventually played.

Brad stated that his theory of planning was to 'kinda just run practices based on how we did the day before. . . I do not set up a curriculum'. As Wragg et al. (2000, 217) expressed in the context of teaching: 'The way people teach is often the way they are. . .' It was clear from his initial reaction to TGfU and from his practice that Brad had developed, over time, a way of coaching that he was comfortable with, and that he perceived 'got results'. Bruner (1999) describes such implicit theories as 'folk pedagogies'; i.e. strong views about how people learn and what is 'good' for them.

The problem, of course, is that this approach can be both limited and limiting rooted, as it is, in personal experience and strong (often unchallenged) beliefs about good, better or the

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best ways to coach. It is likely that a coach may never realise the influence of personal experience, nor appreciate the ways in which their powerful assumptions about coaching are guiding practice. Critical reflection is required to challenge such beliefs, which are often deeply ingrained and tacit (Butler 2005). Brad initially saw the intervention as a way of 'building his library of drills' rather than a way of challenging, changing and extending his practice. However, the demands of the TGfU approach meant that Brad had to try and manipulate the learning environment to achieve the learning outcomes and goals required by this approach (Light and Wallian 2008).

Because Jeff was new to coaching in this context, his sessions followed a similar pattern in terms of how they were conducted. Jeff was drawing on his past experiences as a player receiving coaching, and to a degree mimicking the accepted practice modelled by Brad. However, although like Brad, Jeff remarked that TGfU was not 'anything hugely different' he acknowledged the athlete-centred perspective of the TGfU approach, noting that it 'was obviously more focused around them [the players, *sic*]'. It also helped Jeff in viewing himself as a partner in learning while using TGfU (Davis and Sumara 1997; Light 2004, 2005; Light and Wallian 2008) as these data illustrate:

> I guess my role on this is I give them a drill, I explain it to them, I let go, go for a little bit, I will pull them in and I ask them questions. I know that during, at first for a little bit they are doing the stuff wrong, and I think, so my role will be asking them questions trying to get them to really think about it, rather than me just telling, telling them... And their role will be during the drill trying to figure it out, what we are playing. When I ask them the questions trying to figure it out, what they are trying to do and think through it, you know, really get the mental aspect of the game and so. Trying to get them to really think about what they are supposed to be doing, trying to get them to find the answers on their own, in their own way. (Jeff, first-year coach)

### *Coach perceptions of using TGfU*

All coaching philosophies will underpin approaches to learning and practice. 'Espoused' theory and 'theory-in-use' are defined by Argyris and Schön (1974), and distinguish between what people say they will do (espoused theory), what they believe in and their theory-in-use; what they actually do (Brookbank and Magill 2007). Indeed, Brookbank and Magill (2007) argue that practitioners will operate with a model of learning based on an implicit theory-in-use (or a 'folk pedagogy') which does not always duplicate their espoused theory of learning.

The data in this case suggests a positive response to TGfU and leads the coaches to highlight the benefits of a change in practice structure. For example, the data seem to suggest that the coaches grasped one of the key tenets of the TGfU approach, namely the transfer of learning to match play from practice situations (Light 2005; Mitchell, Oslin, and Griffin 2006). Indeed, Brad stated that he liked the fact that TGfU used match-type understanding practices as it aided their players' learning in contextualised situations they would face in the game:

> The process of learning in the match situation was a lot more successful and effective than just skill learning and skill because part of the skill was being able to master it and do it in the match. (Brad, varsity coach)

Jeff was able to give more specific examples than Brad about how he thought the TGfU sessions had allowed his players to improve in their competitive match play. Jeff's perceptions were that after session six the players were 'improving a lot' and learning from the

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TGfU sessions. Jeff observed that the players were transferring the knowledge learned from training sessions to the match play environment and he saw his players covering for out-of-position team mates:

> . . .they are using the stuff that they are learning. You know one of the biggest things I saw was actually, we had kind of defensive over load when one of the outside defense got beat, we had to work on covering for him. . .I can see that happening all the time now, a person will get beat and they will come over and help out. (Jeff, first-year coach)

However, observation of actual coach behaviour demonstrated something of the deep-seated pervading theory-in use, this was particularly the case with Brad, the more experienced coach, as these data illustrate:

> Brad is developing player's knowledge of 'defending crosses' in a small-sided modified 3 vs. 3 vs. 3 game with four static 'wingers' who are confined to a wide 'channel' with two in each half of the field. The 'wingers' are static in that they can only play in their own half of the field. Brad has not placed any of the players in bibs so that they could be identified to a specific team. Players do not have any way of identifying which players are on which team. The practice begins regardless and Brad joins in. Brad becomes frustrated as the practice is not working. He shouts to one of the defending players 'you need to defend that!' Seconds later he receives a pass and shoots only for his shot to go over the crossbar. He calls himself 'old', passes the ball to a player on the opposing team (as the teams were not identifiable). Minutes later he misses another shot and cusses, and cusses again when one of the players misses him with an attempted pass. To compound his frustrations the practice is breaking down as the players do not know which team they are on. Brad dismisses the players request for bibs, 'you can tell who is on your team by looking before you enter the field of play'. At the end of the session Brad states that the 'practice just didn't work' without comment on the problems he had with organising the practice. Brad does not seem to recognise that his participation impacted the organisation of the practice and did not allow him to 'step back' to observe and rectify the issues that arose, to question players and set appropriate new challenges and progressions for the practice when things were not working quite right. (Field notes)

Brad's theory-in-use had a behavioural and dualistic approach to pedagogy (Light 2008). These assumptions and beliefs become apparent through coaching practice but act implicitly on the coach. This disposition to act, or basis for practice is part of what Bourdieu (1990) describes as habitus. The coach's habitus is a set of dispositions that are created and re-formulated in the unification of objective structures (constraints of the coaching environment) and personal history (the coach's experience) (Jarvie and Maguire 1994). Habitus acts below the level of consciousness but serves to structure practice. To be embodied in the habitus, information need not be rendered discursive; it may be tacit knowledge, even knowledge embodied in modes of action (Calhoun 1995). Consequently, the coach's habitus was a significant factor shaping the type of practice and behaviour. 'The habitus, the product of history produces individual and collective practices, and hence history, in accordance with the schemes engendered by history' (Bourdieu 1977, 82). So a coach's history, in part, influences practice as do the contextual forces that actively shape the coaching process, shaping what is coached and why it is thought these things are important. These forces also act to condition the habitus of the players and coaches. In this case, the coach's past experiences and understandings about 'how things should be done' were important, as were team results and winning that acted as a significant contextual force.

In this respect, both coaches highlighted that the TGfU intervention interfered with their preparations for up and coming games. Indeed, Jeff noted that the tactical issue 'was a good thing to work on but was not the most pertinent thing that needed to be worked on'.

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However, this was a greater issue for Brad who was coaching the varsity team. This team hoped to maintain a high win/loss record to qualify for the up-and-coming state championship play-offs. The play-offs gave the team the chance to advance to the state championship final, a championship the current interscholastic program had won in the past with a different group of players. Brad hoped to maintain this win-loss ratio so that the team could also win their district league, a championship they had won many times in the past and in recent seasons with the current group. Thus, the institutional-cultural context, for Brad particularly, was one where performance was important and one that possibly, at the outset of the study, made his practice quite resistant to change.

Winning and the importance of winning leads to coaching becoming outcome-oriented rather than player-centred. Training time is a finite resource, so coaches need to work on, and be seen to be working on (Light 2004, 2005), those aspects of play that will get results. In addition, 'telling' players what do to do gives coaches a notion of control of the coaching process, and the impression of a more effective use of practice time (Potrac, Jones, and Cushion 2007). Developing a 'new' way of working that encourages more input and ownership from the players can be seen as a 'waste' of precious training time. Indeed, TGfU researchers have previously reported that the time constraints in various coaching contexts make it difficult for many coaches to utilise TGfU in their coaching practice because of the time it requires for students to learn (Light 2004).

Linked to the use of time is the need for coaches to reflect on and reinterpret their experiences, or risk the danger of leaving their coaching untouched by new knowledge and insight (Cushion, Armour, and Jones 2003). Reflective dialogue about coaching practice enables coaches to unearth their theory-in-use. In this case Brad espoused the aims and objectives of TGfU but was frustrated by the results for him and his players:

> When they start to become frustrated the rate of play deteriorates, the way they play deteriorates and they go in and they moan at each other and they complain with and to each other. . .there is no continuity left and things just start to crumble. (Brad, varsity coach)

Brad's complaints about how the TGfU intervention interfered with his coaching practice, the way he was coaching his team, and the player's reaction to this meant that after session five he wanted to distance himself from the intervention. At this point, Brad complained that he and his players found some of the games that the team played too complex. He argued that he preferred simpler games:

> the ones. . .that were easy to draw up and say ok this is what we are going to do or be able to spell it out and then for the kids to understand it straight away were easier. The ones that had multiple boxes with multiple ideas were difficult and they did not have the patience for it, I was ok with it but I would rather do something simpler and then build in the pieces later rather than starting with a complex drill and trying to run off without it especially as it was new. (Brad, varsity coach)

This perspective is perhaps reflective of Brad's approach to coaching rather than a commentary on the complexity of the games. Indeed, a behavioural approach to learning would see tasks broken up into smaller pieces, and practice progress from unopposed to opposed, from simple to complex.

Conversely, there were no such issues about the games being too complex from Jeff. However, Jeff's overall focus seemed to be more on development of the players. Although his team played competitive games they were not in a league and results did not matter, except to the players and how they were progressing. Therefore, Jeff could operate without the pressure of results, and feeling the need to control the coaching process.

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> I could notice that, for one they were a lot more skilled as players and they had a lot better understanding of the game. We could look at their individual jobs of what they were supposed to do. (Jeff, first-year coach)

This was also helped by the fact that Jeff was new to coaching and coaching in the program. He had previously 'had coaches that asked questions', and as such he seemed to understand the 'big idea' behind TGfU, and certainly that it was about asking questions with 'more of a focus on them [the players, *sic*]'. It could be argued that the habitus guiding Jeff's practice was more aligned to the outcomes and principles of TGfU. This, in-turn, meant that his perceptions of the TGfU method were more positive.

> I normally I get into it. I understand. . .. Asking questions, and at the same time as much as I am getting more comfortable with it, they start understanding it more, how I present the question and what kind of answers they are giving back. They are getting a lot more knowledge of the game. (Jeff, first-year coach)

This engagement with the intervention also meant that Jeff solicited support from the research team. He asked questions about the games selected for the study, and sought advice from the research team during practice sessions. All factors that enabled him to incorporate TGfU into his coaching practice more readily.

> The first year team is working on 'covering'. In this practice six attackers are playing against four defenders in a 'scrimmage' in the attacking half of the field. However, Jeff is struggling to 'get the game right', and consequently play is slow and bitty. He shouts, 'You need to work harder'. At this point the player's heads seem to drop as Jeff is frustrated with their lack of effort. Jeff turns to the research staff beside him and asks, 'how can I change the organization to improve this?' After a brief conversation he modifies the practice slightly by changing the way the ball is played to the winger. This has little effect, so Jeff stops the practice and brings the players in. During this gathering he adds a progression to the practice giving the defending team a 'target', in that, when they win possession from the attacking team they have to play the ball out of defence by running it out themselves or combining between each other after they win it back from the attackers. This, he says, will prolong the attacks and make the practice less 'manufactured'. This progression seems to motivate the players and intensity of the practice improves. However, Jeff still remonstrates with the players to 'work harder'. Jeff decides to use himself, the coach, as a defending midfield player to enhance the strategical purposes of the game. At the same time more attackers are added so the practice is now eight attackers vs. five defenders (four defenders and one defensive midfielder – Jeff). Once situated in the practice Jeff facilitates the organisation of the defence, prompting them to 'step up' and 'drop in' and stating to them the 'need to talk' to him and the other defenders about their positioning. Jeff's involvement also enables him to highlight various 'if-then-do' moments to the players as well as ask individual players questions in-between 'plays' about decisions or movements they made on the field, (i.e. 'when the ball goes here where do you think you should you be?). (Field notes)

### *Coach pedagogy*

In this section some of the themes that came out from the coaches and their use of the TGfU pedagogy will be addressed, in particular planning and questioning. Planning, because this was a major difference in practice between the two coaches, and questioning, as this is central to the TGfU method (Butler 1996), while both issues impacted the use of TGfU significantly.

Brad's coaching practice had developed to 'plan based on how we did the day before'. Essentially, this approach demonstrates a lack of session planning, and by Brad's own

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admission, overall curriculum planning. As a modus operandi this way of doing things became problematic for Brad when trying to incorporate TGfU into his coaching practice. In this respect, attempting to implement TGfU acted as an important reflective device challenging Brad's limited planning and demonstrating its importance to coaching practice:

> I think I needed to be more prepared as far as the questions go because I do not think that I was asking very good questions. I did not have questions in mind for the most part and I think that would make a huge difference, you know, you had given us some sheets to look at and that helped a lot with questions, you know but the first time that you do it you are going to get a little bit different feel for it and then once you have done it you know. (Brad, varsity coach)

On the other hand, Jeff explained how he planned for the TGfU sessions in detail.

> I thought the drills were explained really well, besides getting these pieces of paper. I was able, for the most part, be able to look at it, read it and be able to put the drill together. It was good, just asking them questions and having good responses for the most part. (Jeff, first-year coach)

Brad's approach is not uncommon; indeed, the perception of coaches/teachers that they do not have to plan to coach when using TGfU is evident in the TGfU literature (e.g. Howarth 2005). This results in a 'roll out the ball' (Metzler 2005) mentality possibly reflected in the comment by Brad about TGfU being 'nothing new'. This suggests a lack of understanding about the TGfU approach and its requirements, as in this case being viewed as simply 'playing games' (Metzler 2005, 419) rather than searching for 'teaching moments' (Metzler 2005, 418) that occur in the game and interject where appropriate.

The importance of planning when using any teaching method, not just TGfU, should not be understated. Indeed, Griffey and Housner (1991) found that planning was a characteristic that distinguished experienced and inexperienced teachers. Brad's approach to coaching, day-by-day ad-hoc sessions, leant itself to his instructive/behavioural coaching as he could deal with coaching issues as they arose developing a largely reactive learning environment. Attempting to use TGfU clearly demonstrated to Brad the requirements of a pro-active learning environment and the need to structure practice and learning in advance. Brad admitted that he needed to 'sit down and prepare questions that were a little more applicable to our situation rather than generalized questions'. This need was also reflected in some of the comments players made about this aspect of his use of TGfU, in particular, poor questioning:

> I think the questions were definitely relevant to what we have been doing but I felt the majority of the questions were overly rhetorical and you could sort of just sit there and blow wind. . .and be like, yeah, yeah, yeah, and so I think that it is important that the majority of the people know the answer to but at the same point no-one is actually learning anything if you are just going over the same old same old. (Neal, varsity player)

The coaches' habitus, their disposition and experiences, act as a filter through which all new knowledge must pass (Cushion, Armour, and Jones 2003). As a result anything that appears as a challenge may be contested either directly or indirectly. As stated earlier, Brad was initially dismissive of the TGfU approach suggesting it was 'nothing new'. However, as Bourdieu (1987), reminds us, resistance can be alienating and with the sessions not working, at the end of session five Brad sought help from the research team. This support enabled Brad to reflect on his coaching practice and go some way to identifying his implicit 'theory-in-use'. Submission can be liberating (Bourdieu 1987) enabling more freedom and a more positive experience. Indeed, the 'submission' of Brad to the TGfU approach was not a

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deliberate or conscious concession to the 'power' of TGfU, it was instead an unconscious fit, a meshing between his habitus, the players and requirements of the context.

The collaboration with the research team aided Brad as he was able to take a step back to observe and reflect on the play (read student learning in the game context) and ask questions of the research team about his planning for, and management of, the training environment (e.g. how and when to modify the games, when to stop play and question, when to bring players out of the game for individual questioning etc.). Arranging the coaching session in this way meant the players were more active participants for the duration of the session and they were asked questions by Brad and by the various 'game forms' due to the way they were constructed and manipulated. For Brad, this experience allowed him to begin to reform his coaching identity as he realised that he needed to plan for, and manage, the TGfU sessions by reflecting in and on action (Schön 1983). As a result, the players became more active participants in practice, where engagement and dialogue about this engagement helped develop the coaching and learning taking place. What is more, the support and facilitation of Brad's learning by the research team aided this transition (Culver and Trudel 2006).

Light and Wallian (2009) stated that constructivist approaches to teaching and coaching such as TGfU require that the coach set up and manage an effective learning environment. The fact that Brad struggled to step back and observe game play, and found the manipulation of the training environment difficult, especially in the earlier part of the study reflect the fact that he may have become 'lost in the chaos' of TGfU (Light 2005).

In contrast, Jeff found help in the use of the research team from the beginning of the study where he used them to ask questions during the practices, in order to 'tweak' the games prepared for the study to 'get a good game going' (Rovegno et al. 2001).

> Sometimes I was just really confused, but it was always nice to have Steve [the lead researcher] there or someone else there to kind of like go up to them and asked them what we were actually supposed to do and what the idea behind it is. (Jeff, first-year coach)

For Jeff, 'getting the game right' (Thorpe and Bunker 2008) possibly led to the games having more meaning for the players and they therefore gained greater understanding and motivation for the TGfU pedagogy (Gréhaigne, Richard, and Griffin 2005; Chen and Light 2006). What is more, Jeff's skilful use of tools such as 'freeze replays' and 'the coach as a player' in session three (described above) for example, also showed the beginnings of some understanding of the TGfU pedagogy. However, it was questioning that Jeff frequently mentioned during his interviews as one of the key aspects of the TGfU pedagogy, and this was also evident from the field observations. As he stated:

> It just more that anything is that the [TGfU] sessions just force me to ask questions, force me to just kind of step back and take some time and let them to figure out the answers for themselves. (Jeff, first-year coach)

Jeff saw the need to step back and facilitate by being a partner in learning (Davis and Sumara 1997; Light 2004, 2008; Light and Wallian 2008). The fact that TGfU shifts the power differential between coach and athlete has been found in previous studies on coaches' use of games-based teaching methods such as TGfU (see Light 2004). Jeff's effective use of questioning stimulated his players' higher order thinking skills as this player describes:

> Oh, yes. He is doing a good job asking questions. He is asking and first I did not understand what he was asking. And then I thought it was. . .guess it is a little bit different, he puts it a little bit different than what we are used to hearing. (Thomas, first-year player)

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Gréhaigne, Richard, and Griffin (2005) highlighted how an ability to get players to verbalise knowledge allows this knowledge to be brought to a level of consciousness and stimulate reflection-on-action (Schön 1983). While much of sports knowledge is often tacit (Williams, Davids, and Williams 1999) TGfU should bring knowledge to the conscious level through dialogue and discussion with coaches and players. This dialogue and discussion provides an environment for players to begin to internalise knowledge (Daniels 2001) so it can be displayed as knowledge-in-action (Schön 1983) during the game (Light and Fawns 2003).

## Concluding thoughts

As well as acting as a filter through which all new knowledge must pass (Cushion, Armour, and Jones 2003) coaches' habitus and their experiences reflect a practitioner's values, beliefs and dispositions about their practice. Findings from this present study showed that the two coaches' values, beliefs and dispositions were challenged by the TGfU approach, and like Butler (2005) stated TGfU was certainly a way in which the coaches were able to recognize where there were potential areas for improvement and development in their coaching practice. What is more, the institutionalized context of the coaching practice (i.e. Brad working at more of a performance level' and the fact that he had been coaching in the same program for the last seven years) made it difficult for Brad to develop his use of TGfU. In contrast, Jeff observed early in the intervention how TGfU could help develop not only his own coaching practice but advance player learning through appropriate use of questioning and stepping back (Light 2004).

However, one thing of note is that while both coaches did alter their coaching practice to a varied degree by the end of the TGfU intervention, neither coach had totally adopted TGfU approach into their coaching practice. The utilisation of the TGfU approach had not influenced them sufficiently to impact their coaching identity (Lave and Wenger 1991). It is difficult to say if the changes from the intervention will have led to a permanent change in coaching practice, or if during the subsequent high school soccer season with its inherent pressures and difficulties the coaches went back to their 'typical' coaching practices from before the intervention began.

In addition, while we rationalised the use of a case study method in this particular study, clearly there is scope for larger scale and/or longitudinal coaching interventions that attempt to move sports coaches toward more athlete-centred coaching practices (Kidman 2001, 2005). There is some evidence that such interventions can change practice (Light and Evans 2010). With this in mind a case could be made for more TGfU/Game Sense within formal coach education, not only as a means to develop athlete-centred coaching, but also as a way for coaches to understand theories of learning that underpin practice.

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## Note

1. The video the coaches watched was the 'Game Sense' video (den Duyn 1997; published by the Australian Sports Commission; ASC) which overviewed the format and pedagogical progression of the games sense approach. The book chapter the coaches worked through was Chapter 13 from '*Instructional models for physical education*' (Metzler 2000).

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