

Game Sense: Innovation or just good coaching?

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Abstract

Although Game Sense is fundamentally very different to directive, technique-focused approaches to coaching many of the ideas that Thorpe brought with him had long been used by successful coaches in Australia as a means of replicating game conditions. While the literature on contemporary approaches to coaching (such as Game Sense and Teaching Games for Understanding) typically contrasts them with purely technique-based, directive approaches this dichotomy neither adequately reflects the proper relationship between approaches nor does it represent the state of coaching in Australia. Typically, coaches adopt a more varied range of approaches across a spectrum of approaches from 'traditional' technique-focused, coach-centred to purely game-based coaching. From this perspective can Game Sense be seen as an innovative approach to coaching or is it just good practice?

Introduction

The literature on games approaches to coaching and physical education teaching such as Game Sense typically contrasts them with purely technique-based, directive approaches (for example, see Turner & Martinek, 1992). However, this dichotomy does not adequately reflect the real relationship between the two approaches. Nor does it adequately represent the state of coaching in Australia and other countries. Some coaches (and teachers) do continue with a very coach-centred, authoritarian, technique-based approach of drilling technique out of the context of games while many others emphasise the development of technique yet incorporate games into their coaching regimes. This dichotomy also misrepresents the relationships between thinking and moving, between skill execution and understanding, and the practice of Game Sense by implying that it neglects technique. Skill is developed in Game Sense but is developed contextually and is less explicit than approaches that focus strongly on technique. From my own experience of coaching and working with coaches I would suggest that coaching practice in Australia, and elsewhere, is not cleanly split between technical and tactical approaches and the research drawn on in this paper supports this contention. It would be more accurate to view

the range of coaching practices adopted across the wide range of different sports played at different levels as covering a spectrum of approaches ranging from purely technique-focused, coach-centred coaching to completely game-based, player-centred coaching. From this perspective we may well ask, can Game Sense be seen as an innovative approach to coaching or is it just good practice?

In setting out to answer this question this paper examines the development of Game Sense in Australia and its use by Australian coaches. It looks at the relationship between technique and tactical understanding, the ways in which a range of coaches use games in their coaching regimes and the distinctive pedagogy embedded in the Game Sense approach. In doing so it draws on research conducted over 2002 to 2003 on Game Sense coaching in Australia. This research is reported on more fully elsewhere (Light, 2005). It examined what Australian coaches felt Game Sense had to offer and the challenges involved in its implementation and illuminated the range of approaches adopted by practising coaches under the broad umbrella of Game Sense.

The development of Game Sense in Australia

Rod Thorpe regularly visited Australia from 1994 to 1998, where he worked with the Australian Sports Commission (ASC) and Australian coaches to develop a systematic coaching approach based on the TGfU model known as Game Sense. Successful Australian coaches were already using many of the ideas and practices that Thorpe brought with him. Thorpe, however, provided a structured approach and a focus on questioning. He worked with local coaches to modify the TGfU model to suit Australian coaches and to make it more appealing to them. The name Game Sense was seen to have more appeal than TGfU and to distance coaches a little from physical education teachers (Light, 2004). The emphasis on questioning in Game Sense engages players in learning by encouraging them to think and talk about both the tactical and technical aspects of play. Rather than telling players what to do the coach sets the learning environment and guides players through problem solving by asking them questions. This approach is consistent with the approach to teaching and learning promoted by John Dewey, widely regarded as the greatest educational theorist in the twentieth century. As Dewey (1916/97) argues, meaningful learning occurs through immediate reflection upon overt experience. The teacher (or coach) shapes learning through manipulation of the environment and not through any direct instruction, “we never educate directly, but indirectly through means of the environment” (Dewey, 1916/1997, p.18-19). The coach also provides opportunities for them to work collaboratively on developing strategies, tactics and appropriate technique. Understanding is typically developed at an intellectual level where players can express it in speech before developing at an embodied level where it is expressed as intelligent action in games (Light & Fawns, 2003). From a cognitive theory perspective these different forms of knowledge are seen as declarative and procedural knowledge (Anderson, 1980; Annett, 1996). Declarative knowledge is

that which is conscious and can be expressed verbally while procedural knowledge is non-conscious knowledge that may not be easily expressed in speech but can be expressed in action. This distinction has been widely applied in research on tactical or game-based approaches (for example, see Thomas & Thomas, 1994; Griffin, Brooker & Patton, 2005).

Game Sense is supported by resources produced by the ASC. These include a set of Game Sense activity cards divided into the four types of games. The four categories are invasion (or territorial) games such as soccer, rugby, basketball and Australian football, striking games such as cricket and softball, net/wall games such as volleyball, tennis and squash and target games such as golf, archery and lawn bowls. Within each category the games share much in terms of the tactical knowledge needed to play well and this is transferable across sports. This is clearly appealing for physical education teachers who deal with a wide range of sports and games. It is also useful in sport coaching where the coach works with only one sport. Playing different sports as part of a training regime can offer increased motivation for players who may become stale over long seasons. At the same time, it can develop the same tactical understanding needed in their game. While the skills required across sports in the one category are likely to be very different, tactical considerations are similar. Field hockey and soccer are clearly very similar in this way but there is also tactical cross over between rugby, basketball and Australian football. The idea of making space for attack and passes or kicks that lead a receiver into space are common to all invasion games. For example, a modified game of Australian football could be used as a warm up game for basketball training. As long as the coach takes a Game Sense approach to focus on perception, tactical understanding and decision-making, this would not only be fun for the players but would also make a valuable contribution to their development as players and as a team.

The concepts of coaching and learning that underpin Game Sense pedagogy are fundamentally different to those underpinning what is commonly described as 'traditional' coaching. 'Traditional' coaching typically refers to a model of coaching that emphasises directive, coach-centred instruction and focuses primarily on the refinement and development of technique. This model is commonly contrasted with games' approaches such as Game Sense that are player-centred and focused on the game rather than on technique. The concepts and assumptions underpinning technical and games' approaches are very different but as Thorpe suggests in his Australian clinics, much of what he does with coaches is not necessarily new and will likely be familiar to many of them. This point was made by several of the coaches interviewed over 2002/2003 in the study referred to earlier. Lance (a pseudonym) was involved in coach education in Victoria and recognised much of what Rod Thorpe presented at his first seminar with him:

When I saw Rod there were many things that I thought, 'oh I know that, I've seen that before', but he added a lot of things to it. The questioning approach one thing that I found challenging and useful.

(Interview, Lance)

The research

The study referred to in this paper drew a series of interviews conducted over 2002 and 2003 with five experienced coaches and coach educators in the state of Victoria and the Australian Capital Territory in Australia using a Game Sense approach. It set out to examine their experiences of coaching using Game Sense, what they saw as its strengths and the challenges involved in its implementation. It is reported on more fully elsewhere (Light, 2005). A constant comparative approach was employed to analyse the interview data. All interviews were recorded and conducted on a one to one basis and varied in duration from brief ten-minute conversations to ninety-minute formal interviews. All names used are pseudonyms in order to protect the anonymity of the participants.

The participants

'Lance' was Manager of Coaching and Officiating Victoria, at the Victorian Coaching Centre (VCC), which is a government-funded organization that promotes sport at the grass roots level. 'Ivan' was Coaching and Development Manager at the Victorian Soccer Federation (VSF). 'Peter' was High Performance Manager at the Victorian Institute of Sport (VIS). 'Jane' coached netball at the VIS and provides an example of a coach who is guided by the Game Sense approach but sees a place for 'traditional' technical work in her coaching. 'Naomi' holds a senior position in the Sport Education section at the Australian Sports Commission and has played an important role in the development and dissemination of Game Sense.

Technical or tactical?

Much of the earlier debate on tactical approaches to coaching and teaching contrasted a tactical model with a 'traditional' technique-focused model (for example, see Turner & Martinek, 1992; Mitchell, Oslin & Griffin, 1995). Technical approaches are based on the assumption that technique must be learned to be able to play the game (Blomquist, Luhtanen and Laakso, 2001). Lance often works with children, young people and their coaches and suggested that this is like "telling kids that they can't go in the pool until they can swim." In contrast, Game Sense begins with games that are modified to reduce the demands of technique required to play the game. This enables players to think about what they are doing and develop understanding in games where they are not hindered by the need to have a high level of technical competency to play. As games are developed and become more complex the demands on skill and technique increase but the performance of technique that is part of these games develops along with understanding. During this process the coach needs to maintain a balance between success and challenge.

He/she may, as Lance suggests, “throw in a few crumbs of information (on tactics or technique)” for the game to progress. In this way Game Sense strives to simultaneously develop technique and understanding by locating learning within modified games and game-like situations. Although a Game Sense coach may also work on technique it is developed in relation to the game. While he or she may, at times, direct players’ attention to technique, it is either developed within games or worked on outside the game, with the relationship between the technique and the game understood by the players. That is to say that even when a coach stops a game to work on technique, its relevance to the game is made clear.

In trying to explain what Game Sense or TGfU is, researchers invariably suggest what it is not. They suggest that it is not ‘the’ traditional model characterised by directive, coach-centred and technique-focused approaches. While this may be useful in distinguishing Game Sense from more technique-focused approaches it tends to promote a dichotomy that splits coaching approaches into either tactical or technical categories. This misrepresents coaching that emphasises the development of technique yet employs modified games. It also misrepresents the practice of Game Sense as neglecting skill development. Although the emphasis in Game Sense is placed on learning through games, skill is not neglected. It is developed contextually. Much of the increased interest in Game Sense and other understanding approaches in the physical education field arises from recognition of its similarity to constructivism in the education field. Constructivism views the learner as being actively engaged in learning and drawing on existing knowledge to make sense of learning situations and construct understandings. Proponents of constructivism tend to contrast it with the behaviourist approach of ‘traditional’ teaching. They set up constructivism in opposition to what was a dominant behaviourist approach and exaggerate traditional teaching to highlight the strengths of constructivism (Fox, 2001). They set up a ‘straw man’ of traditional teaching so that they can knock it down. They compare an active learning approach with the passive approach of ‘traditional’ teaching. Traditionalists are painted as believing that teaching involves telling students what to do and seeing them as empty vessels to be filled with knowledge.

The parallel with comparisons between ‘traditional’ technique-focused coaching and Game Sense coaching are obvious. Fox, however, rightly questions whether anyone really does teach in the way painted as that of the traditionalist teacher. Within a similar debate of tactical versus technical we might also question how many coaches actually limit their coaching to the direct instruction of technique. Coaches in the study reported on in this paper had all used games in their training prior to their exposure to Game Sense. Peter worked at the elite level of sport in Australia and suggested that all good coaches use modified games in their training anyway, regardless of whether they see themselves as Game Sense coaches. In

response to being asked about the impact that Game Sense had on coaching in Australia Peter suggests that using modified games is basic to good coaching:

Oh (Game Sense has) had a great impact but the top coaches intuitively do it anyway. All the coaches at the VIS follow this way of thinking whether they've been introduced to Game Sense as such or whether they have just developed this approach themselves through their own approaches to coaching their sport at high performance levels. But it's got to be part and parcel of coaching at all levels. (Interview, Peter)

While this suggests that games-based training is part of all good coaching, the Game Sense approach is distinctive in the way that it uses questioning in training. While many coaches had long used games in training, Thorpe made a very significant contribution by structuring the way games are used to focus on a player-centred approach in which questioning formed a pivotal aspect as Peter makes clear:

My first exposure to Games Sense was with Rod Thorpe and I just said Yeah! It fitted in my approach anyway. But he packaged it in a better way and promoted it in a better way. But the underlying philosophy was very much consistent with my own philosophy and the philosophy of all our coaches here. He brought in questioning. It's the only way forward. (Interview Peter)

The development of skills and technique in Game Sense

One of the most misleading criticisms levelled at Game Sense and other similar approaches is the claim that they neglect skill to focus exclusively on tactical understanding and decision-making. While a technique-focus is built on the assumption that skills or technique need to be developed in order to play games (Blomquist, Luhtanen and Laakso, 2001) the Game Sense approach emphasises the development of skill, understanding and decision-making ability as occurring at the same time. Perception, decision-making and skill performance in games are seen as being intimately interrelated and are developed simultaneously (Light & Fawns, 2003). Several coaches in the study commented on the notion of skills being transferable from training to the real game. They suggested that coaches needed to replicate game conditions in training for improvements in training during the week to be matched by improvement on the field or court on the weekend. Game Sense does not neglect skill but does view its place in the development of athletes quite differently from a technique-focused approach. Its focus is on the game and not on the technique. Motor skill execution is seen as being only one part of performance in games along with perception and decision-making (Blomquist et al, 2001; Abernathy, Kippers, Mackinnon, Neal & Hanrahan, 1996).

It is not that skills are not important in Game Sense, but that they are learnt within the context of games or game-like situations and are thus more easily transferred to competitive matches. There are also likely to be occasions when the coach needs to

use direct instruction in relation to technique and skill in Game Sense (Grehaigne, Godbout & Bouthier, 1999). The need for emphasis on the development of technical proficiency will also vary across game categories. While invasion (territorial) games are the most amenable to a games approach, striking games are likely to require more of a technical focus. As Turner, Allison and Pissanos (2001) point out, sound coaching needs to reflect recognition that both motor skill execution and game knowledge contribute to good game performance. Research on tactical approaches to coaching such as Game Sense suggests that they can improve the cognitive dimensions of play without detracting from skill development (McPherson, 1999; Turner & Martinek, 1999). Such research, however, tends to measure skill outside the game and, as such, does not really evaluate the way skill is performed in the context of games. Not only are skill and game knowledge both necessary, they are, in fact, inextricably linked. Good skill execution in games requires good game understanding (Brooker, 2000; Light & Fawns, 2003). Developments in assessment of game performance such as the Game Performance Assessment Instrument (GPAI) offer a more authentic means of evaluating skill execution within the context of games (see for example, Griffin et al., 1997).

While technique is typically developed within the context of games where possible in Game Sense it is common practice among many Game Sense coaches to work on technique and skill separate from games when it is breaking down in games. When a lack of technical proficiency prevents progress in a training game then the Game Sense coach can modify the game further in ways that reduce the stress on technical proficiency. This provides for more success in the game; it enables the game to continue. In this instance technical proficiency develops as game complexity is increased. At elite levels of sport, coaches typically construct modified games or replicate actual game scenarios to work on specific aspects of the game. This can also include focus on technique but technique performed in game situations and under game-like pressure. Although the development of technical proficiency might be less explicit than in a more 'skill drill' type approach it develops within the context of games the players are thus more likely to develop flexible and adaptable technical execution.

Alternatively, the coach can stop the game when a lack of technique is holding up progression and work in a more technique-focused way to improve the skill until it is good enough to go back into the game. This is something Rod Thorpe encourages if coaches see the need for it (Bunker & Thorpe, 1986) and is adopted as part of the Tactical Games Approach developed in the United States (for example, see Griffin et al, 1997). In this way the technical work has meaning for the players. They can see where it fits into the game and why they are doing it.

Using games as part of good coaching and teaching

Despite the distinct differences between Game Sense coaching and coaching that focuses on the development of technique there is not a clear-cut dichotomy in practice between the two approaches. There is often considerable overlap between work on technique and the incorporation of games into training. While the conception of coaching and learning in Game Sense is very different to a purely technical and directive approach many Australian coaches had made use of games in their training well before Thorpe's visits. From a practical perspective they would likely see what is presented in Game Sense as being commonsense 'good coaching.' Jane was an elite level netball coach working at one of Australia's premier sport institutions. She provides a good example of a coach who promotes Game Sense and values what it has to offer yet still values work on technique in netball. Jane had been using a Game Sense approach well before she had been exposed to Game Sense as a particular coaching approach:

I really haven't been *introduced* (original emphasis) to Game Sense. It's just something that I've developed in my own coaching style over time by incorporating snippets of what happens in a match into training to give the athletes options for decision-making under game conditions. It really educates the athletes in making decisions. But they need a good skill base so that you can replicate the conditions of a match.

Jane incorporates games in her training to develop decision-making and tactical knowledge but argues that the players still need to develop technique to a level that allows the games to be played well. She values technical development and often struggles to find what she feels is the right balance between skill work and game-based training:

I guess I have always had a Game Sense approach to coaching and I've probably experimented more with it at the VIS over the past seven years. When I first started using it I don't think it worked very well at all. I think there's a need to fast track athletes up to a certain level and then introduce Games Sense from there. I think you need to have the basics in place. (Jane, interview)

Jane provides an example of a coach who has not completely adopted the Game Sense approach of basing learning and development of skill, tactical knowledge and decision-making within game contexts. For her, the use of games to develop player decision-making and flexibility of technique is more a case of good coaching rather than a major shift in conceptualising coaching.

Discussion

Coaches interested in adopting a Game Sense approach need not take a mutually exclusive, either/or approach. Tactical approaches such as Game Sense do not necessarily involve choosing between technique or tactics and there are differences

between coaches in the balance they strike between their emphasis on game-based learning and technique (Light, 2004). Adopting a Game Sense approach involves coaching in a way that promotes both the development of understanding and skill within game-like contexts (Brooker, 2000; McMorris, 1999; Turner & Martinek, 1992). Adopting a tactical approach does not necessarily mean that there is no place for directive teaching as there are often times when the teaching and learning of 'technical skills' is appropriate and players' tactical decisions are made "in connection with the technical skills they can perform" (Grehaigne, Godbout and Bouthier, 1999, p.171). For example, while Jane adopts a Game Sense approach to her netball coaching she retains a considerable amount of work on coaching technique. As Stimson (1996) suggests, many coaches are likely to already have elements of Game Sense in their sessions and interpret it in different ways that suit their purposes and inclinations. Coaches will interpret Game Sense in different ways and will work it into their own coaching approaches and philosophy in particular ways (Kidman, 2001).

A view of Game Sense as an approach that develops understanding yet neglects skill encourages some coaches to take a conciliatory approach and what they see as 'using the best of both worlds.' This typically involves incorporating games into existing training regimes to develop perception, decision-making, and tactical understanding and employing skill drills and work on technique to develop specific motor skills and technique. At a practical level this seems to make sense and enables coaches to use game-based work without abandoning their normal practices. This approach would make a contribution toward developing tactical understanding, decision-making ability and flexible skill execution but this 'mix and match' approach is problematic. The pedagogies required are very different and the conceptions of coaching and learning for the two approaches are not really complementary. Incorporating games into a predominantly technique-based coaching regime will likely improve player decision-making and develop tactical understanding to some degree but the use of modified games and game-like activities in training cannot realise their full potential to develop, autonomous, thinking players with adaptable and flexible skills without the Game Sense pedagogy. The games are only part of the package. Game Sense pedagogy is necessary to make the most of games in training. The Game Sense coach sets the environment for the players to learn, challenges the players to meet the demands of the game and guides them through appropriate questioning rather than telling them what to do. Taking this role as a facilitator of learning allows the coach to empower players to think, solve problems, develop flexible skills and become autonomous players who can both take responsibility for their own learning in training and make their own decisions 'on the pitch.' Recognising the benefit of using game-based coaching is only the start for coaches wishing to encourage the development of thinking and adaptable players. Realising the promise that Game Sense holds for the development of complete games players requires a significant shift in the role

of the coach and the ways in which he/she relates to players. As Naomi suggests, as much as Game Sense draws on common sense ideas of good coaching, the ideas and philosophy embedded in it are significantly different:

I believe it has exposed coaches to an alternative approach to coaching. It enhances the teaching of 'tactical' elements of the game, and also promotes an enhanced learning environment for the athlete. Encouraging coaches to 'teach' rather than just 'tell' is important. (Naomi, interview)

It is not just the playing of modified games that develops better players. The pedagogy adopted in Game Sense is innovative in coaching and is necessary to get the best results from teaching through games.

Conclusion

Research on physical education and coaching pedagogy highlights the potential that games-based approaches such as Game Sense offer for the improvement of children's and young people's experiences of sport (Kirk & McPhail, 2002; Light & Fawns, 2001, 2003). They are also used in the development of elite level athletes (for example, see Light, 2004; Kidman, 2001). Game Sense offers coaches across a range of levels a means of moving beyond out-dated approaches to coaching underpinned by a conception of knowledge as something that is passed down from coach to player. Conceptions of knowledge as an object existing outside the player that needs to be internalized that underpin technical approaches to coaching do not accurately capture how people actually learn. Developments in learning theory over the past few decades in education and the rise of constructivism challenge this conception to view learning to play sport as an active process of interpretation. The Game Sense approach involves taking a view of coaching as a form of multi-variate and dynamic human interaction and not the mere transmission of knowledge (Light, 2002). In doing so it offers a means of making sport more relevant and rewarding for children and young people while also offering coaches a means of developing intelligent, autonomous and creative players to the highest levels of performance.

Is Game Sense an innovation or just good coaching? The use of modified games to better replicate game conditions and contextualize skill execution in Game Sense can indeed be found in other coaching philosophies that would not necessarily be called Game Sense. Many of the coaches that Thorpe worked with in Australia had been incorporating games into their training regimes well before Thorpe and the ASC developed Game Sense. Indeed, many coaches reading this paper will likely be thinking of how they also have used games in some way as part of their training. In this way Game Sense could be seen as just good coaching. On the other hand, the unique pedagogy used in Game Sense is a coaching innovation that is distinctly different to established coaching practices. The focus on the players and not the coach, the encouragement of player autonomy and interaction and the central role

that questioning plays in Game Sense are radically different to directive, coach-centred approaches. Game Sense is, therefore, a coaching innovation. It is a coaching approach that offers very substantial opportunities for the improvement of coaching across a wide range of sports from the local under-nine soccer team to the most elite and competitive levels of international sport. Game Sense and other game-based approaches to coaching are exciting developments in coaching that can transform coaching at any level and should be given due consideration by all coaches. For these approaches to be taken up more widely the growing body of research on approaches such as TGFU in physical education literature needs to extend its application to sport coaching at all levels and to consider some of the differences between teaching games in schools and sport coaching in the wide variety of settings in which it is practised.

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