# Similar, but not the same: Comparing the game based approaches of Teaching Games for Understanding (TGfU) and Game Sense

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*Abstract*

*The development and use of game based approaches (GBAs) across a range of global teaching and coaching settings has expanded significantly over the last two decades. And with each GBA underpinned by similar theories of learning, distinctions between each approach can often be blurred. Arguably, this can lead to teachers' and coaches' blended conceptualisations of different pedagogical approaches. Thus, although similar there is a need for teachers and coaches to recognise that not all GBAs are the same with each model or approach chosen impacting significantly upon learner experiences. Through analysis of literature and presentation of teaching/coaching lesson/session outlines, this paper presents similarities and differences of two game based instructional pedagogies - TGfU and Game Sense - and discusses the need for teachers and coaches to recognise and respond to the contextual differences of each when considering their use.*

Key words : Teaching Games for Understanding, game sense, teaching, coaching.

## Introduction

In the late 1960's the work of Deleplace (1966) and Mahlo (1969) recognised the significance of developing an understanding of both technique and tactics within the one model of games teaching. In essence, their recognition that cognitive processes were important aspects of effective game play performance helped to stimulate and inform further research from authors in France around the globe (Harvey, Cushion, & Massa-Gonzalez (2010). Additional research by Wade (1967) and Mauldon and Redfern (1969) in England helped to stimulate the emergence of a change in thinking as to how sport and games could or should be taught. In essence, a shift away from the predominance of repetitive practice, technique focused learning scenarios in sport was being suggested to be replaced by a greater emphasis on the learner and their place in the learning

environment - now commonly referred to as a game based approach (GBA). Yet, it was arguably Bunker and Thorpe's (1982) publication identifying a model for the teaching of games in secondary schools that stimulated the current global interest into how sport and games are taught. Their critique of the 'centrality and fundamentality of the teaching of sports-techniques in games' and proposal that 'games teaching should begin not with practice of the prerequisite skills but with participation in a game modified to suit the level of experience and ability of the players' (Kirk, 2010, p 51) coincided with their development of a coherent approach to teaching sport and games, namely Teaching Games for Understanding (TGfU).

Since the development of TGfU and a range of other GBAs including Tactical-Decision Learning Model (TDLM - Gréhaigne, Wallian, & Godbout, 2005) and Game Sense (discussed in depth later in this paper), research into GBA use by teachers and coaches across a range of settings has expanded significantly. Arguably though, this has led to teachers' and coaches' blended conceptualisations of different GBAs. Thus, although similar the authors of this paper believe there is a need for teachers and coaches to recognise that not all GBAs are the same with each model or approach chosen impacting significantly upon learner experiences. Through analysis of literature and presentation of teaching and coaching session outlines, this paper presents similarities and differences of two GBAs - TGfU and Game Sense - and discusses the need for teachers and coaches to recognise and respond to the contextual differences of each when considering their use. It is not the purpose of this paper to compare TGfU and Game Sense with TDLM but instead to provide an overview of these two game based teaching approaches to inform readers so that they can then compare and contrast these approaches (and their intended use) to their understanding and use of TDLM.
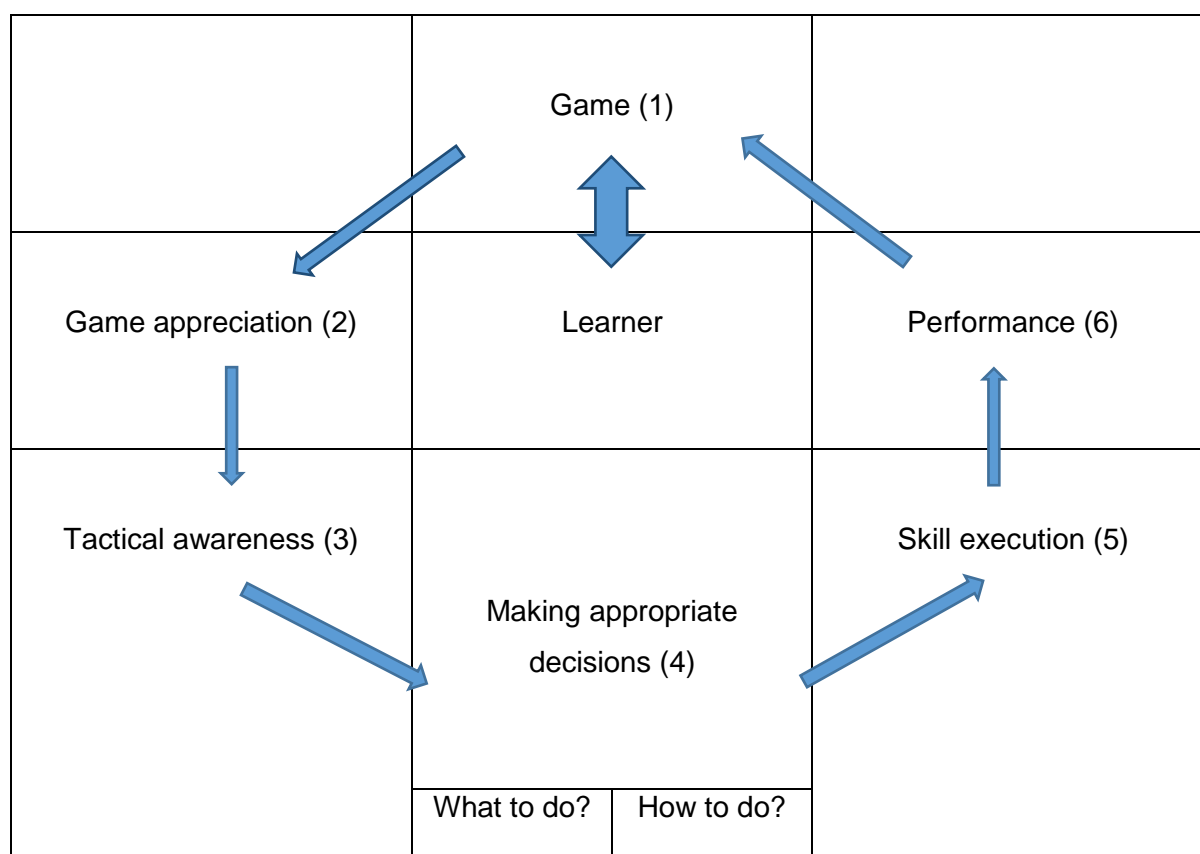
## 1. Teaching Games for Understanding

TGfU has been described as a learner and game centred step-by-step procedural model designed to enable sport-related games learning (Griffin & Patton, 2005). It could be argued that the development and use of TGfU as a concept for teaching in and through the game (Bunker & Thorpe, 1982) became representative of a paradigm shift in physical education pedagogy towards teaching learners games as opposed to teaching games to learners. The difference in emphasis here is significant. As Kirk stated (2010) the TGfU model represented a challenge to 'the order of the skill-learning universe; it showed that linear progression from the molecular level of technique to the mature skill is not

fundamental to playing games and sports after all' (p. 85). By design it emphasises the learning of games as situational within the game itself (Kirk & MacPhail, 2002) and utilises a six-step model to frame learning (see Table i).

Central to the model is the focus on the 'learner' and their active engagement with the 'game'. Through active gameplay 'game appreciation' is developed that helps learners recognise the importance of understanding the purpose of the game and how rules shape play. 'Tactics' and 'decision making' are developed through engagement in a range of progressive (i.e. more complex) games that focus on specific aspects of the game. This presents opportunities for problem solving which helps develop decision making skills in relation to each game play scenario. Hence, the simultaneous development of an understanding of 'what to do', 'how to do it', and 'when to do it' in relation to gameplay. The four pedagogical principles used to help accomplish this are 1) the *sampling* of different games from similar game categories within which all games share similar tactical problems (e.g. invasion games, net/wall games, striking/fielding games, target games), 2) the *representation* of skills and tactics associated with the advanced game being the focus of learning in modified games, 3) the *exaggeration* and emphasis on a specific aspect of the game played out through conditioned environments, and 4) the progressive development of the *tactical complexity* of games to enhance learners' understanding and improvement. 'Skill execution' and 'performance' are developed through game play but only *after* learner recognition of the need for a particular kind of skill and/or negotiation with the teacher/coach. Dependent upon the performance levels of the learner/s a focus on technical skill execution may be engaged with outside of the game (Webb, Pearson & Forrest, 2006).

Table i. Bunker and Thorpe's (1982) TGfU model.

| | Game (1) | |
|---|---|---|
| Game appreciation (2) | Learner | Performance (6) |
| Tactical awareness (3) | Making appropriate decisions (4) | Skill execution (5) |
| | What to do? How to do? | |

Adapted from Bunker & Thorpe (1982)

It has been argued that the success of TGfU is mediated by the art of successful questioning (Bunker & Thorpe, 1986b; Forrest, Webb & Pearson, 2005; Hubball, Lambert & Hayes, 2005; Webb & Pearson, 2008). Effective questioning encourages learners to analyse their actions, both as a team and individually and 'can also help to guide the player to an answer' (Webb, Pearson & Forrest, 2006, p. 4). In addition to the importance of questioning to facilitate learners' development of game cognition, TGfU success also relies on 'getting the game right' so that learners 'think more about, and within, the game' (Harvey, 2009, p. 7). Trusting the game to be the focus of learning and spending time observing the learning environment to determine how and when to structure and ask questions are teaching strategies arguably less emphasized when more traditional skills-based, teacher-centred approaches are used in games teaching. Indeed, with research and comment over the past 20 years suggesting that traditional skills based approaches 'served only to highlight, confirm and reinforce - often publicly - the learners lack of physical ability' (Allison & Thorpe, 1997, p.12) the development of a range of game based, learner centred approaches, born from TGfU, has ensued. One of these is Game Sense.

## 2. Game Sense

The pedagogical approach known as Game Sense (not to be confused with the term game sense which is often used to refer to the practical understanding of games) is often referred to as the 'Australian version of TGfU' (Light 2013, p. 20) due, in part, to the significant role Rod Thorpe (co-developer of TGfU) played in its development, predominantly for use by Australian sport coaches (Light, 2013). According to Light (2013) learning through a Game Sense approach is situated within modified games that involve competition and decision making with an emphasis on questioning to stimulate thinking and intellectual engagement and to make it learner centred. Game Sense is by design less structured than TGfU with the absence of a prescriptive model initially intended to encourage existing good coaching practice and avoid any association with pedagogical practices used in school based physical education (Light, 2013). When utilising a Game Sense approach questions are not asked to correct answers, but instead to stimulate thinking and interaction with the understanding that there is no single way or solution to perform games (Chen & Light, 2006). At its core a Game Sense approach involves offering a sequence of games to achieve certain outcomes through a 'game – reflection and discussion – game' design (Light, 2012). It requires use of pedagogical features that involve; 1) designing a game based learning environment, 2) emphasising questioning and other indirect teaching/coaching strategies to generate dialogue, 3) providing opportunities for collaborative formulation of ideas/solutions that are tested and evaluated, and 4) developing a supportive socio-moral environment (Light, 2013).

With use of TGfU and Game Sense often underpinned by similar theories of learning (i.e. constructivism) any distinction between each approach can often be blurred. Arguably, this can lead to teachers' and coaches' blended conceptualisations of uniquely different pedagogical approaches. Although similar in their intention (i.e. to promote learner involvement through playing modified/conditioned games) there is a need for teachers and coaches considering using TGfU or Game Sense to acknowledge the number of important similarities and differences between the two pedagogical approaches as their selection and utilisation can impact significantly upon learner experiences.


## 3. Similarities between TGfU and Game Sense

This section will highlight a number of similarities that exist linking TGfU and Game Sense. Recognition of these similarities is important for teachers and coaches and their ongoing development of pedagogical content knowledge.

3. 1. Constructivist perspective

It has been widely stated in the literature (see Light 2013; Reid & Harvey, 2014) that TGfU and Game Sense have similar theoretical underpinnings supporting use of either approach to develop holistic learning (e.g. cognition, affect, motor development and social learning). This makes sense considering the evolution of Game Sense from TGfU. Since 1998 the constructivist perspective has been the dominant theory associated with learning through use of TGfU and Game Sense (Light, 2013). Constructivist theories of learning see the learner 'drawing on prior experience and knowledge to interpret and make sense of learning experiences' (Light & Georgakis, 2007, p. 25). Light (2013) expands on this further by describing constructivism as:

> A holistic conception of learning that extends beyond the individual mind as a separate entity to include the body and all its senses and others. From a constructivists perspective, cognition does not occur only in the mind, but involves the whole person… knowledge is not merely that which can be expressed in speech and writing but also that which is enacted [and that] learning is a process of adapting to, and fitting into, a constantly changing world. (p. 28)

Supporting the association of TGfU and Game Sense with a broader constructivist theory of learning are comments by Kirk and Macdonald (1998) that detail constructivist approaches as offering emphasis on:

> '…learning as an active process in which the individual seeks out information in relation to the task at hand and the environmental conditions prevailing at any given time, and tests out her or his own capabilities within the context formed by the task and the environment.' (p. 376).

Building on Kirk and Macdonald's description above as well as work by Davis and Sumara (2003), more recent theorising by Light (2008; 2013) has seen the adoption of the more general term complex learning theory (CLT) to describe the basic ideas underpinning TGfU and Game Sense. In essence CLT has been used to simplify the confusion associated with the diverse range of constructivist approaches linked to TGfU and Game Sense use (e.g. constructionism, psychological constructivism, social-constructivism). CLT, as presented by Davis & Sumara (2003), suggest that all forms of constructivism that have been used to theorise learning contain the same three broad themes; that learning is active, social, and a process of interpretation.

With respect to TGfU and Game Sense, use of CLT helps to encourage a broader conceptualisation of the learning that occurs in and through use of the approach and recognises the complex nature of learning (Light, 2013). Furthermore, the association of CLT with TGfU and Game Sense focuses attention on the body's role in learning and, as far as physical education is concerned, bring it 'into the mainstream curriculum by moving its focus beyond the physical to see the inseparable relationship between mind, body and learning' (Light, 2008, p. 31). Thus, use of the term CLT has the potential to help teachers and coaches better understand the connection between what they should do (i.e. to maintain emphasis on learner involvement in modified/conditioned games) and why they should do it (i.e. to stimulate learning).

### 3. 2. Learning outcomes and pedagogical skills/strategies

Both TGfU and Game Sense propose 'learning outcomes that challenge conventional ways of thinking about learning in physical education and requires teachers [and coaches] to use strategies other than direct instruction to achieve these outcomes' (Kirk, 2005, p. 214). The learning outcomes alluded to here by Kirk that are synonymous with TGfU and Game Sense research include positive social, moral and personal development (see Harvey, 2009; Light, 2006; Light 2012), positive motivational experiences (see Mandigo, Holt, Anderson & Sheppard, 2008; Jones, Marshall, & Peters, 2010) and the development of better games players (see Lee & Ward, 2009; Harvey, Cushion, Wegis & Massa-Gonzalez, 2010). The achievement of such learning outcomes requires alignment with and use of appropriate pedagogical skills (e.g. questioning and the giving of feedback) and strategies (e.g. peer teaching, cooperative learning, and personal reflection). Light (2014) suggests that use of these strategies provides learners with 'consistently positive learning experiences that enhance learning and promote both the ability and the inclination to learn' (p. 29).

### 3. 3. Modes of assessment

Similarities between TGfU and Game Sense also extend to modes of assessment used to measure learning outcome achievement. Harvey, Cope and Jones (2014) discuss the importance of authentic assessment in teaching and coaching settings which they define as the need for learners to be 'assessed within the context in which the skills are being developed (i.e. in the game)' (p. 180). This 'context of learning' is influenced significantly by pedagogical strategies and the learning theory that underpins the delivery of the subject matter content. Thus, for assessment practice to be authentic it should align with both set learning outcomes and pedagogical practice. Similar authentic assessments have been

used to assess learning and development across both TGfU and Game Sense practices. For example, the Game Performance Assessment Instrument (GPAI) utilised in TGfU research (see Harvey, et. al. 2010) and associated with Game Sense practice (see Light, 2013) and self-assessment practices utilised in TGfU research (see MacPhail, Kirk & Griffin, 2008) as well as Game Sense research (see Light & Georgakis, 2007). Synonymous with research focusing on use of the TDLM and assessment of the value and limits of a player's adaptation to game play (Gréhaigne, Godbout & Zerai, 2011), use of Merand's (1977) notion of effective play-space can/could also be used as an observational tool to determine players' development when using either a TGfU or Game Sense approach.

### 3. 4. Affective domain of learning

The active engagement within a TGfU or Game Sense session places learners in a holistic (i.e. physical, cognitive and social) learning environment relational web consequential to overall learning (Chen & Light, 2006). Moreover, the relational character of learning within games and its associated content (i.e. the relationships between tactics and technique) has also seen TGfU and Game Sense research investigate learner development within the social and affective dimensions of learning (see Harvey, 2009; Jones, Marshall, and Peters, 2010; Light, 2012). Indeed, arguably one of the most compelling reasons for the use of TGfU or Game Sense is the potential to improve social and affective outcomes that are not only common in games and sports engagement but are associated with communication, interaction and teamwork (Harvey, 2009). Rovegno et al., (2001) also demonstrated how the teaching of tactics to elementary-aged pupils required a focus on notions of throwing a catchable pass, a key aspect of the relational character of games. These authors further noted that structuring the learning environment (i.e. the game) so pupils could offload their cognition onto the environment (e.g. by having defence players in basketball defend with their hands behind their backs) was also important factor in helping get a good game going, where the pupils could apply technical skills to overcome complex tactical problems, while enjoying playing the game. Light (2012) states that use of TGfU and Game Sense can also support aspects of learning that are often unintended and less tangible i.e. a positive development of personal identity and sense of belonging. Furthermore, from an ethical development perspective, increased consideration of others (in and out of the lesson/session) has also been associated with engagement in TGfU and Game Sense as well as promotion of equal opportunity and the redressing of unequal power relations between learner and teacher/coach (Light, 2012).

3. 5. Used for both teaching and coaching

Initial reasoning for the development of TGfU by Bunker and Thorpe (1982) was their dissatisfaction with traditional teaching approaches. They had observed that 'present games *teaching* shows at best a series of highly structured *lessons* leaning heavily on the teaching of techniques, or at worst *lessons* which rely on the children themselves to sustain interest in the game' [emphasis added] (Bunker & Thorpe, 1986a, p. 7). It is without question that the intention of TGfU development was to challenge existing teaching (and learning) within school based physical education settings (see Mandigo, Holt, Anderson & Sheppard, 2008; Wang & Ha, 2009; Peters & Shuck, 2009). In recent years though, research into use of TGfU within coaching settings has also emerged (see Harvey, Cushion & Massa-Gonzalez, 2010; Roberts, 2011) with a range of foci (e.g. learner motor skill development, coaching practice improvement). Conversely, although Game Sense developed as an approach to be utilised by coaches in sport coaching settings (see Light, 2004; Evans & Light, 2008), it has also been used in more structured curriculum-orientated environments at primary, secondary and tertiary levels to help engage learners through a focus on active, supportive learning (see Brooker, Kirk & Braiuka & Bransgrove, 2000; Chen & Light, 2006; Curry & Light, 2007; Light & Georgakis, 2007; Harvey, 2009; Jarrett 2011; Light, Curry & Mooney, 2014). Thus, similar to use of other GBAs (such as TDLM), TGfU and Game Sense are now used across a range of teaching and coaching settings (De Souza and Mitchell, 2010; Light, 2013). Interestingly though, it is the reporting of both TGfU and Game Sense being used in a range of different learning settings over a 30-year period (e.g. sports club practices, physical education lessons, after school sports team practices) that has arguably contributed to not only the terms being used interchangeably, but also a lack of awareness of the significant differences that do exist.


## 4. Differences between TGfU and Game Sense

With the terms TGfU and Game Sense often being used interchangeably is it any wonder that teachers and coaches are more aware of the similarities that exist between the two approaches rather than the differences? Also contributing to a blended conceptualisation of approaches is the limited articulation of verification benchmarks used by a large proportion of TGfU and Game Sense studies. Indeed, in the absence of benchmark statements specifically designed to focus on the fidelity of Game Sense, the use of TGfU-orientated validation protocols such as those offered by Metzler (2011) and Turner and Martinek (1999) have been utilised (see Jarrett, 2011). This begs the question 'If TGfU and

Game Sense are so similar, what benefits are there for teachers and coaches to recognise and understand the differences that do exist?'

Comments by Stoltz and Pill (2014) help to provide the required reasoning for investigation of these differences. When discussing the professional learning of teachers Stoltz and Pill reiterate Elliott's (1989) view that 'pedagogical and teacher expertise is context specific, and so the generalities of educational research which ignore contextual features thereby have little or no use to practitioners' (p. 62). And although Stoltz and Pill (2014, p. 63) point out that teachers and coaches may 'not necessarily see or want to see the same boundaries between pedagogical models as researchers do' Kirk (2011) suggests caution with the extent to which teachers and coaches modify an approach and still be 'doing the model', as continued slippage may undermine intended learner achievement.

In order to appreciate the differences between TGfU and Game Sense it is important to recognise the range of practical and theoretical developments that have influenced how TGfU (and to a lesser extent Game Sense) are now interpreted and used. When commenting on the evolution of TGfU Light (2013) explains that 'given the comparative brevity of its description in 1982 and the extent to which [TGfU] has been examined, analysed, theorised, and had suggestions made for modification since then, it would be surprising if it had not changed' (p. 21). Therefore, the differences outlined below are grounded in the different interpretations of each approach presented in literature over the past 30 years. No one definition of either approach has been adopted to enable a more representative and ecological comparison of differences held within the literature.

### 4. 1. Only TGfU is a model

Light (2013) suggested that the main difference between TGfU and Game Sense is the latter's 'looser approach' with TGfU being more defined and specific in its implementation. This highlights the fundamental difference in the origins of each approach with TGfU being a prescriptive education-focused *model* and Game Sense being a more performance-focused *approach* more open to interpretation to support coaches' (and teachers') existing good practice. With TGfU originally geared toward teaching games in physical education classes, the model offered a prescriptive approach to help teachers provide their learners with opportunities to recognise underlying principles of games based on space, time, force and risk where tactical understanding was reduced to simple ideas that might transfer to other similar games (Kidman, Thorpe & Kirk, 1991). The distinct education focus of TGfU is confirmed by Rod Thorpe who commented that the 'central aim in the lesson was to ensure children understood what they were doing and learning more about games'

(Kidman, Thorpe & Kirk, 1991, p. 233). The more 'fluid' Game Sense approach is supported by the absence of a model which arguably provides teachers/coaches with greater opportunities to teach/coach what they see rather than being hamstrung by any assumed requirement for structured sequencing of learning (e.g. in relation to TGfU model adherence it can be argued that at some point a teacher/coach is required to stop game play to complete required technical skill practice whereas in Game Sense the learner/s may be taken out of the game to address their skill development whilst the game continues). This fluidity also means teachers/coaches have greater options as to when and how to introduce any skill practice as well as arguably providing more opportunities to get learners involved as co-participants in learning.

4. 2. Underpinning theory

Often it is within description of similarity that we find difference. Take for example the use of CLT as a broad conceptualisation for learning associated with TGfU and Game Sense sessions. Mouchet (2014) highlights that TGfU is based on a paradigm that is essentially cognitivist with an educative focus on individual sense and meaning making whereas social constructivism is 'more useful in understanding and theorising the learning that takes place in and through Game Sense due to its emphasis on learning as a social process' (Light, 2013, p. 28). Thus, although CLT is a blanket term now commonly used in physical education literature, teachers and coaches have an obligation to recognise the different theoretical perspectives that underpinned the development of both TGfU and Game Sense to help ascertain which to use, when and why. This can help teachers and coaches align the design of the learning environment (i.e. the games to be played and questions to be asked) with desired outcomes set for each/all learners (e.g. higher level of effective engagement, improved recognition of game play patterns, skill execution under pressure).

4. 3. Conception of game stronger in Game Sense

According to Light (2013) the use of modified games within TGfU is designed to help learners/players understand the place of certain skills in the game through engagement in game play. If required, learners/players can then practice these skills before returning to the game. In Game Sense the focus of learning is within games as much as possible with no prior identification of skills to be developed. Skills and tactics are thus 'learnt and developed within game contexts rather than being identified within, and practiced for, game contexts' (Light, 2013, p. 23). The implications of this difference are significant as it requires teachers/coaches to consider the context of learning (e.g. learners ability levels,

motivations) as well as the structure of the learning episode (e.g. intended learning outcomes) prior to determining which approach better serves the needs of learners.

### 4. 4. Structure of learning

Typically, TGfU begins with a simple game or activity that progressively becomes more tactically complex (Light, 2013) with the underlying purpose of learning to maximise appreciation, enjoyment, cognitive development and physical growth to encourage participation in future games, activities and sport (Storey & Butler, 2010). A Game Sense approach adopts a similar focus but traditionally geared more towards a sport coaching protocol where the games used typically aim at improving or changing specific aspects of team play (Light, 2013; Light & Mooney, 2014). Thus, the holistic education focus of TGfU when compared to the more performative sport-specific origins of Game Sense implies the need for difference in the structure of learning. With TGfU providing a strong conceptual framework for understanding game categorisation and using the sampling of different games to support transfer of learning (Storey & Butler, 2010) there are inherently greater opportunities available to include a broader range of games to structure learning. Indeed, the essence of Game Sense (certainly in a coaching setting) is not the introduction of a sport and how it is played but a pedagogical approach to help those with an enquiring mind and previous knowledge relating to the sport/activity to achieve their expectations of engagement in more senior, competitive sport (Light, 2013). With this said, however, it is important to recognise the educative and performance development value of both approaches and the achievement of learning outcomes across a range of teaching and coaching settings for either approach.

## 5. Teaching and coaching lesson/session outlines for TGfU and Game Sense

To highlight further the similarities and differences that exist between TGfU and Game Sense in both teaching and coaching settings (as well as the assumed differences in learning outcomes that would exist), four separate lesson/session outlines are presented below (see Tables ii, iii, iv, v). Each lesson/session concentrates on the same sport of basketball with a focus on developing decision making around shot selection. Both the TGfU lesson and session includes reference to an identified strategic focus of learning followed by a typical lesson/session structure that moves from initial game form at the beginning to modified game/full game at its conclusion. Sample questions are also provided to direct learners to the strategic focus of the lesson/session. Both the Game Sense lesson and session involve a greater emphasis on learners determining the

strategic focus of learning with a focus on staying in the game longer. Typical questions used to prompt learner thinking/engagement are included as well as additional pedagogical skills/strategies available to be used by the teacher/coach. The example questions included within each table are by no means exclusive to that particular lesson/session approach but are offered as a guide. Indeed, dependent upon learning objectives, it may often be the case that the same questions could be asked even when different approaches are used.

5. 1. Teaching - lesson specifics

Both the TGfU (Table ii) and Game Sense (Table iii) lesson outlines focus on a single gender, mixed ability, 60 minute class of 13 year old school learners. The class has previous experience of being taught basketball in their primary schooling.

5. 2. Coaching - session specifics

Both the TGfU (Table iv) and Game Sense (Table v) session outlines focus on a single gender, similar ability, 60 minute coaching session for a group of 13 year olds. The group has previous experience of being taught basketball in their primary schooling with some playing at the club longer than others.

Table ii. TGfU basketball lesson - teaching outline.

| Strategic focus | Initial game form | Tactical focus | Technique focus | Modified game/full game | Sample questions |
|---|---|---|---|---|---|
| Developing decision making on shot selection | Lesson begins

3 vs. 3 small-sided game

Space: key area out to 3-point line

Rules: no dribble, start from top of 3-point arc or side line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play | Creating and moving into space

Game: 3 vs. 1 small-sided game with no dribble

Progression: 3 vs. 2 small-sided game with no dribble

Space: same as initial game

Rules: same as initial game, 30 second time constraint

Game condition: must be open (unguraded) to shoot | Shot set up  and establishing triple threat position

Select from static or dynamic practices:

1. Self-toss, catch and shoot (from different court positions)

2. 1 with 1 (pass, catch, triple threat (shoot/pass/ dribble) from different court positions | Half court 4 vs. 4

Rules: start from half way line or side line, no dribble once ball enters 3-point arc

Game condition: must be open (unguarded) to shoot

Lesson concludes | Offense: What are you trying to do when you do not have the ball?

Defence: What are you trying to do as a team to defend the basket?

Offense: What are the different ways to make yourself open to receive the ball?

Offense: What do you need to consider when deciding whether or not to shoot? |

Lesson outline adapted from Turner (2005) and Webb, Pearson & Forrest (2006)

Table iii. Game Sense basketball lesson - teaching outline.

| Initial game form | Determining strategic focus | Skill practice | Subsequent game/s | Additional pedagogical skills/strategies to be utilised |
|---|---|---|---|---|
| Lesson begins<br><br>3 vs. 3 small-sided game<br><br>Space: key area out to 3-point line<br><br>Rules: no dribble, start from top of 3-point arc or side line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play<br><br>Questions: 'What do you need to consider when deciding whether or not to shoot?', 'Where could you move to on the court to maximise your scoring threat?' | After observation and reflection on initial game play a focus on decision making surrounding shot selection is decided on by learners in collaboration with the teacher<br><br>Questions: 'What were the offensive and defensive challenges present in the 3 vs. 3 game?', 'When in possession of the ball what are your options?', 'When deciding whether to shoot what are you looking for in your opponent?' | 1. Self-toss, catch and shoot (from different court positions)<br><br>2. 1 with 1 (pass, catch, triple threat (shoot/pass/ dribble) from different court positions | Subsequent games would specifically target development of team play to enable better shot selection.<br><br>3 vs. 2 and 4 vs. 4<br><br>Space: half-court<br><br>Rules: no dribble, start from half-way line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play<br><br>Optional game condition: must be open (unguarded) to shoot<br><br>Lesson concludes | Stop play: allows teacher to question specific aspects of team play and stimulate critical reflection and team discussion<br><br>Modify playing space and/or rules: promotes problem solving ideas to be developed, discussed and trialled by teams<br><br>Learner extraction from game: facilitates opportunity for discussion between learner/s and teacher focusing on development of technique or tactics |

Session outline adapted from Light (2013)

Table iv. TGfU basketball session - coaching outline.

| Strategic focus | Initial game form | Tactical focus | Technique focus | Modified game/full game | Sample questions |
|---|---|---|---|---|---|
| Developing decision making surrounding shot selection | Session begins<br><br>3 vs. 3 small-sided game<br><br>Space: key area out to 3-point line<br><br>Rules: no dribble, start from top of 3-point arc or side line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play | Creating and moving into space<br><br>Game: 3 vs. 2 small-sided game with no dribble<br><br>Progression: 3 vs. 2 small-sided game with no dribble<br><br>Space: key area out to 3-point line<br><br>Rules: same as initial game plus 30 second time constraint to shoot, offense keeps possession if they score | Shot set up and establishing triple threat position<br><br>Select from static or dynamic practices:<br><br>1. Self-toss, catch and shoot (from different court positions)<br><br>2. 1 with 1 (pass, catch, triple threat (shoot/pass/ dribble) from different court positions<br><br>3. 3 vs 1 (offensive player sets screen on | Full court 5 vs. 5<br><br>Rules: game refereed, 30 second shot clock, teams keep score with double points on offer with every score directly resulting from a player made open by a screen<br><br>Session concludes | 'What tactics can you use to assist a teammate's chance of scoring?'<br><br>Defence: 'When defending an opponent with the ball what are you trying to do?'<br><br>Defence: 'When defending an opponent without the ball what should you consider?'<br><br>Offense: What are the best ways to make yourself open to receive the ball within the key? |

| | | | defensive player, offensive teammate uses screen to receive ball in triple threat position) | | |
|---|---|---|---|---|---|

Lesson outline adapted from Turner (2005) and Webb, Pearson & Forrest (2006)

Table v. Game Sense basketball session - coaching outline.

| Initial game form | Determining strategic focus | Subsequent game/s | Additional pedagogical skills/strategies to be utilised |
|---|---|---|---|
| Session begins<br><br>3 vs. 3 small-sided game<br><br>Space: key area out to 3-point line<br><br>Rules: no dribble, start from top of 3-point arc or side line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play<br><br>Questions: 'What do you need to consider when deciding whether or not to shoot?', 'Where could you move to on the court to maximise your scoring threat?' | After observation and reflection on initial game play an aspect of team play is determined (by players in collaboration with coach guidance) as the focus of subsequent games<br><br>Questions: 'What were the offensive and defensive challenges present in the 3 vs. 3 game?', 'When in possession of the ball what are your options? Can you demonstrate them in this scenario?', 'When deciding whether to shoot what are you looking for in your opponent?' | With a focus on developing decision making surrounding shot selection agreed upon, subsequent games would specifically target development of team play to enable better shot selection.<br><br>3 vs. 2, 4 vs. 3, 5 vs. 4 small-sided games (5 vs. 4 progressing to inclusion of $5^{th}$ defender from base line after 5 offensive passes)<br><br>Space: half-court<br><br>Rules: no dribble, start from half-way line, teams swap when ball out of bounds or offensive infraction or defensive team gains possession, defensive foul resets play<br><br>Optional game condition: must be open (unguarded) to shoot<br><br>Session concludes | Stop play: allows coach to question specific aspects of team play and stimulate critical reflection and team discussion<br><br>Modify playing space and/or rules: promotes problem solving ideas to be developed, discussed and trialled by teams<br><br>Player extraction from game: facilitates opportunity for discussion between player/s and coach focusing on development of technique or tactics |

Session outline adapted from Light (2013)

## 5. Importance of recognising difference between approaches

As already alluded to in this paper it is important for teachers and coaches to recognise and appreciate the differences between TGfU and Game Sense as doing so will focus consideration not only on the context of learning but also on the intended structure of learning (e.g. a more prescriptive lesson or a more adaptive session) – both being essential considerations for 'good teaching/coaching practice'. Also, the authors believe that teachers and coaches have an obligation to recognise the different theoretical perspectives that underpin use of both TGfU and Game Sense as this knowledge can help drive the professional development of teachers and coaches and stimulate further

discourse and development relating to pedagogical choice and implementation. Appreciation of the differences that exist between TGfU and Game Sense can also help prepare teachers and coaches to recognise (and challenge when necessary) the assumptions that are sometimes associated with each instructional pedagogy (e.g. that you 'just play games' or that use of TGfU or Game Sense is the same when used in either a school-based curriculum lesson or a sport coaching setting). Having a knowledgeable, contextual understanding of which model/approach might better serve the needs of learners/players surely has the potential to make good teachers and coaches even better?

## 6. Challenges for teachers and coaches

A number of challenges exist for teachers and coaches when trying to understanding the differences between TGfU and Game Sense; specifically the determination and implementation of the 'more appropriate' pedagogy to enhance teaching/coaching practice. Accessing research can be a time consuming pursuit, especially when the predominance of TGfU and Game Sense literature is available only in English language. Specific contextual aspects of TGfU and Game Sense research may also limit generalizability of findings and transfer of meaning based on teachers'/coaches' geographical location. The authors suggest that further investment in 'verified' TGfU and Game Sense research published in bilingual journals is required along with making pedagogy-themed conference attendance more appealing and accessible for teachers and coaches. The authors also agree with Zuccolo, Spittle & Pill (2014) and their call for further exploration of how Game Sense is interpreted and used by coaches as well as non-users' perceptions of TGfU and Game Sense. The development and online presence of an International Advisory Board through the TGfU Special Interest Group (see www.tgfu.info) has helped to encourage the wider dissemination of information but with anecdotal evidence suggesting the limited uptake of TGfU and Game Sense by teachers and coaches further innovative investment is required.

## Conclusion

This paper has outlined the similarities and differences between TGfU and Game Sense through analysis of relevant literature published over the past three decades. By providing examples of TGfU and Game Sense lesson and session outlines the authors hope to encourage readers to challenge their own understanding of the similarities and differences that exist between each approach and how each might be used to enhance future practice

and learners' learning. Discussion within the paper also focused on the importance for teachers and coaches to recognise the different theoretical perspectives that underpin the use of TGfU and Game Sense as this knowledge can help drive the professional development of teachers and coaches and improve fidelity of pedagogies implemented. The identification of similarities and differences between TGfU and Game Sense can/should also stimulate further comparisons to understanding of other game based approaches, such as TDLM, and the fidelity of their use also.

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