Original Article

Teacher engagement with teaching games for understanding - game sense in physical education

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Abstract
    Previous research has suggested that the implementation of innovation that reinvigorates the teaching of games and sports in Australian schools has faced considerable barriers (Alexander, 2008; Light & Georgakis, 2005; Pill, 2009). One example of an innovation to enhance sport teaching and learning is Teaching Games for Understanding-Game Sense (den Dun, 1996, 1997a). This paper presents the findings from a survey of physical education teachers' in one Australian state and the degree of engagement with TGfU-GS curriculum design and enactment. Sixty Four teachers participated in a web survey investigating the penetration of TGfU-GS curriculum. The data was treated as qualitative and the surveys were analysed by comparative systematic interpretation to reveal recurring themes. The analysis indicated that TGfU- GS was thought to be most applicable for senior years (Years 11-12) physical education. Teachers recognised the use of small-sided modified games and 'questioning as pedagogy' as common practice and not distinctive to a TGfU-GS approach. However, the use of questioning was generally not planned for in teacher lesson preparation and lesson planning did not utilise TGfU-GS game categories to thematically develop game understanding systematically across sport specific units of work. While elements of TGfU-GS pedagogy are evidenced in the design and enactment of sport and sport related games teachers TGfU-GS was yet to be fully understood and implemented by the majority of teachers.
Key Words: Physical education, sport, game sense, teaching games for understanding

Introduction

    This paper reports on a research project that investigated physical education teachers' in one Australian state use of, and familiarity with, Teaching Games for Understanding– Game Sense (TGfU-GS) curriculum design and enactment. Previous research has suggested that despite curriculum and pedagogical innovations (such as TGfU) physical education teachers have largely not changed the way they teach (Alexander, 2008; Capel, 2005; Light & Georgakis, 2005; Light & Tan, 2006; Pill, 2009).

    Resistance has occurred despite research recognition of TGfU (Light & Georgakis, 2005) and the impact TGfU (as Game Sense) has made on coaching practice in Australia, most recently through Playing for Life (Australian Sports Commission, 2007; Schembri, 2005). Alexander (2008), in his keynote at the Play to Educate Conference, however, indicated that TGfU is still not common place in Australian school physical education despite 25 years of research and advocacy of its efficacy for game and sport teaching/learning in physical education. This perspective of the penetration of TGfU-GS into Australian physical education has also been commented upon by Forrest, Webb and Pearson (2006).

    The traditional pedagogy of physical education has been positioned as one of the contributors to an often problematic experience of learning. Kirk (2005) summarised traditional physical education pedagogy as "characterized by relatively short units of activity… an overwhelming focus on technique development; a lack of accountability for learning and little progression of learning; and the almost exclusive use of a directive teaching style" (p.246). The defining characteristic of this directive reproductive style is that the teacher does much of the thinking for the student who reproduces knowledge. This is in stark contrast to productive styles which allow students to individually explore problems, make decisions and for new knowledge and movement solutions to emerge. The Productive Pedagogies framework for the design and enactment of quality teaching makes explicit that student engagement in work of intellectual quality is necessary for all students to have a chance to 'do well'(Queensland Department of Education, n.d.). This does not discount the need for directive teaching to produce specific movement task objectives, rather, it foregrounds the need for a 'tool kit' of instructional strategies to meet specific task outcomes and in order to create a menu of learning experiences that meet the

needs and learning styles of a group of students. This is very well explained in Mosston and Ashworth's (2002) book, *Teaching Physical Education*.

Australian physical education has been discussed as a site which rewards and acknowledges those students who enter physical education lessons with existing skills and athletic competencies while potentially isolating and marginalising students who are not highly (motor) skilled (O'Connor, 2006). The dominant curriculum focus of 'sport-as-technique' (Kirk, 2010) arguably foregrounds learning 'in movement, for movement' while providing limited learning through and about the embodied, situated and subjective experiences of movement. The continuation of a problematic curriculum experience in Australian physical education is to the detriment of both the cultural and educational significance of physical education. It is also detrimental to the alignment of sport teaching in physical education with contemporary sport skill learning theory such as environmental design and dynamic systems theory (Chow, Davids, Button, Shuttleworth, Renshaw, Araujo, 2007) for skill learning. One innovative model through which to reinvigorate sport teaching consistent with contemporary sport skill learning theory is TGfU-GS (Chow et al., 2007; Renshaw, Chow, Davids, & Hammond, 2010).

Teaching Games for Understanding

In Australia, the TGfU model is possibly better recognised as 'Game Sense' (ASC, 1999; den Duyn,1996, 1997a, 1997b). Game Sense came to prominence in Australian sport coaching following a visit to Australia in the mid 1990's by one of the TGfU originators, Rod Thorpe. As a coaching model, Game Sense set out to foreground that good sport teaching develops 'thinking' players (den Duyn, 1997b). Game Sense challenged the traditional coaching emphasis on reproductive practice by foregrounding learning the contextual application of sport skill through designer games (Charlesworth, 1994). This concept was extended from elite coaching to junior sport skill learning through 'game sense games' (Australian Sports Commission, 1999).

> *"There has been a strong shift. The biggest difference is we hardly ever have witch's hats or cones out on the ground now because they don't allow players to train with instinct. We need them to work in movement patterns like they are going to do in a game... It is called game-based training or game-sense training"* (Richardson, in McAsey, April 19, 2008).

This quote demonstrates the influence that Game Sense is having in the field of sport coaching. Within the TGfU-GS sport skill learning paradigm technique was redefined from the reproduction of 'textbook techniques' to the contextual application of movement skills so players learnt 'What to do?' and 'How to do it?' synchronistically. This is evident in the Game Sense definition of skill as "Technique + Game Context" (den Duyn, 1997b, p.6). Direct teaching and reproductive instructional strategies were not shelved. Rather, the need for this type of instructional approach was allowed to emerge from player and teacher/coach understanding of the learning necessary to enhance game play. In this way the emphasis of the learning environment was shifted from textbook learning to game based learning (Pill, 2007).

Bhaskaran (2003) explained that there are two pathways a Game Sense approach can take in practice. A 'small sided approach' where play involves '1 vs. 1' games, gradually building through '2 vs. 1', '2 vs. 2', '3 vs. 2', and so on. This application would also appear to take account of TGfU related training such as Play Practices (Launder, 2001), Designer Games (Charlesworth, 1994) and Smart Challenges (Bell, 2003; Bell & Penney, 2004). Bhaskeran (2003) indicated the second type of Game Sense application was the 'mid size approach'. This involved starting games with a minimum number of players and with limited rules. As game understanding develops the complexity of play is gradually built through the addition of further rules, concepts and techniques. Game Sense has been described as 'playing with purpose' (Pill, 2010).Teaching sport and sport related games from a Game Sense perspective requires awareness that sport skill learning extends beyond the physical, or motor, movement aspects of physical education to include cognitive conceptual awareness so that players develop as effective decision makers (Griffin & Sheehy, 2004).

TGfU has been linked to contemporary sport skill learning theory as an example of constraints based learning theory (Chow et al., 2007). TGfU provides a different curriculum and pedagogical emphasis for game and sport teaching in physical education because of the assumption underpinning the model. "The TGfU model was built on the basic assumption that 'students learn best if they understand what to do before they understand how to do it' (Butler et al., 2003 cited in Griffin, Brooker & Patton, 2005, p.215). The TGfU-GS approach is well described in physical education literature, both academic and applied (see for example; Butler & Griffin, 2010; Griffin & Butler, 2005; Mitchell, Griffin & Oslin, 2006; Schembri, 2005; Slade, 2010; Pill, 2010), and so a detailed explanation is not necessary here.

Physical education – a curriculum focus on cognition in game settings

Going back as far as the mid 1990's and the "Health and Physical Education – a curriculum profile for Australian schools" (1994) (HPE- CP) physical education curriculum and syllabus documents in Australia have focused on students in the middle and secondary years participating in game settings with a high degree of cognitive engagement. For example, the HPE-CP Physical Activity and the Community Strand indicated that at

Standard 5 students should demonstrate the ability to "*Devises and implements strategies in games, using and adapting a range of motor skills*". More recently, and contextual to this research, the South Australian Standards and Accountability Framework for Health and Physical Education (SACSA-HPE) stated that at Standard 4 (Years 7-8) an average student should be able to *"Reflect on the use of specialised skills in various social contexts (including teams) and is able to modify skills to improve performance"* (DECS, 2005). This is indicated by students who can, for example:
- Respond to, and provide appropriately critical feedback to improve the performance of self and others (DETE, 2001); and
- Analyse performance and identify strategies for improvement (DECS, 2005)

The use of learning descriptors such as '*reflect*' and '*devise*' in the description of learning in the middle years of schooling (Years 6-9) indicates that students are expected to engage in movement settings, such as sport, with understanding, awareness and conceptual synthesis of sport skills and concepts. It appears that students are expected to learn through and about their movement experiences, not just to sport-as-techniques (Kirk, 2010) in physical education. This would be consistent with the common reference for physical education explained in the Australian Council for Health, Physical Education and Recreation (ACHPER) National Statement on Learning on the Curriculum Future of Health and Physical Education in Australia (2009). This document explained learning in, through and about movement, as well as learning 'for' movement in diverse contexts and ways, as the defining feature of physical education.

Australian research investigating TGfU- Game Sense in schools

Resource development (for example; Australian Sports Commission, 2005; Launder, 2001; Pill, 2007) and curriculum support for TGfU-GS sport teaching in Australian physical education (for example; Queensland Studies Authority, 1999) is evident in Australian education. However, research concerning the implementation of TGfU-GS informed curriculum and pedagogy in Australian school settings is limited. The literature review for this paper found three studies of relevance. Chen and Light (2006) investigated the responses of a Year 6 class of 30 students undertaking a 10 week cricket unit of work taught using a Game Sense approach. Data was largely qualitative in nature, generated through questionnaires and interviews. This study indicated that Game Sense had a positive effect on social interactions and relationships, student perceptions of learning and attitudes towards the sport. Also with Year 6 students, Austin, Haynes and Miller (2004) reported on a research project that used a Game Sense approach to teach kicking proficiency through soccer for 28 students in a rural NSW primary school. While the overall efficacy of a Game Sense approach for the specific development of kicking competency was inclusive, as all students did not achieve 'competency' at the skill in the post (intervention) test, it was concluded by the researchers that a Game Sense approach was effective for skill development. This conclusion was made on basis that the students' post-test results showed overall improvement in the level of mastery of the kick.

In a secondary school setting, Brooker, Kirk and Braiuka (2000) investigated the implementation of a Game Sense approach during a unit of basketball with a Year 8 class in a suburban high school. The research focussed on the teacher's experience of Game Sense as a new teaching approach. It was found that the teacher's absence of experience with Game Sense created concerns for the teacher. These concerns centred on feelings of (lack of) confidence in the use of Game Sense, stemming from a lack of understanding of the conceptual aspects of basketball. This feeling was accompanied by an impression of not being in control of what the class was learning as the lessons were believed to be less ordered than if they had been delivered the 'traditional' way. The researchers concluded that the teacher would have felt more comfortable teaching basketball using a traditional skills focus because it would have been consistent with the teacher's own learning experience of the game. Additionally, it was concluded that there needed to be a range of 'models' focussing on how to structure and organise physical education through a Game Sense approach in order to support teachers in thinking differently about physical education teaching and learning.

As it was previously suggested that a traditional sport-as-technique model persists in sport teaching in Australian physical education, and that the implementation of innovation that reinvigorates the teaching of games and sports in Australian schools may have faced resistance despite curriculum and resource support, this study set out to investigate the penetration of TGfU-GS into the teaching practice of physical education teachers in one Australian state. The aim of the research was to uncover knowledge about how teachers think, feel and understand TGfU-GS in order to better understand the limits and constraints facing the integration of pedagogically progressive sport teaching in physical education

Method

Data for this study was collected using a Web survey tool. Solomon (2001) suggested that web based surveys are a common tool in social science and educational research containing advantages over traditional survey techniques. These advantages include a streamlining of data collection process formatting for analysis as the responses are entered directly to the data base and enhanced formatting capabilities. Disadvantages, according to

Solomon, are that response rates are subject to convenient access to the Internet and the potential for some respondents to have difficulty with this media. Schmidt (1997) indicated that Web surveys are best suited to targeted populations and recruiting that can be geared directly towards individuals who are likely to be representative of the targeted population as a whole. It was this last feature that attracted the researcher to the use of a Web survey as the data collection tool.

Ethics approval for this research was provided by the Flinders University Social and Behavioural Research Ethics Committee. Membership of the peak professional association for health and physical education teachers was aimed at as a representative sample of the targeted population – physical education teachers in schools in one Australian state. An invitation to participate in the survey was sent to all members of the physical education teaching professional association as an advertisement in the member e-newsletter. This advertisement was paid for from a Flinders University Research Budget (URB 1) grant. This grant also provided the funding for the subscription to the Web based survey tool (Survey Monkey).

The survey data was treated as qualitative as it was the aim of the researcher to uncover knowledge about how people think, feel and understand TGfU-GS rather than in making judgments about whether the thoughts and feelings are valid (Thorne, 2000). Sixty Four (n=64) teachers contributed to the survey. The teaching profile of the respondents is summarised in Table 1.

Table 1 *Survey respondents teaching profile*

The survey consisted of questions containing Open Ended, Likert Scale responses and Limited Response questions. The last two tools were accompanied by the opportunity to comment about the response. As a qualitative study inductive reasoning was used to interpret and structure the meanings that could be derived from the data. Thorne (2000) explained that inductive reasoning uses the gathered data to generate ideas by drawing inferences from observations in order to make generalisations. Beginning with observation of recurring words and phrases initial codes were developed. These codes were then used to detect

The results were generated using the inductive process of comparative systematic interpretation (Leddy, 1993; Thorne, 2000). This process involved taking one piece of data (eg. one statement) and comparing it with all others that may be similar or different. This enabled the development of conceptualisations of the possible relations between various pieces of data (Thorne, 2000). Relations were denoted with a series of codes. The codes were then grouped into similar concepts. The concepts were made more workable through further conceptual coupling to reveal categories of concepts. These categories then formed the basis for the generation of themes which summarised the knowledge emerging from the data.

Results

The data from this study suggests that TGfU-Game Sense has not penetrated into the practice of physical education teachers in a meaningful way. Key curriculum features of a TGfU-GS curriculum design, such as the informed and deliberate planning for the implementation of questions as pedagogy to guide knowledge construction and teaching for conceptual transfer across units of work, were not indicated as normatised practices. The results reveal that TGfU- Game Sense was thought to be most applicable for senior years (Years 11-12) physical education. Teachers recognised the use of small sided modified games and questioning as pedagogy as common practice and not distinctive to a TGfU-Game Sense approach. However, the use of questioning was generally not planned for in teacher lesson preparation and planning did not utilise TGfU-Game Sense game categories to thematically develop game understanding systematically across sport specific units of work. The decisive factor in the choice to use a TGfU-Game Sense approach emerged as teacher familiarity, either through training or experience, with this type of teaching.

The results indicated that that practices consistent with TGfU-GS are already common to many teachers 'pedagogical tool-kit'. Specifically, the use of small-sided modified games to maximise participation, the instructional practice of modifying game rules to emphasis tactical elements of play (64% of respondents [N=15]), and the pedagogical use of questioning emerged as consistent features of teachers practice. Forty-one respondents (64%) indicated that they sometimes use a TGfU-GS 'game-question & reflect-practice-game' teaching cycle (Pill, 2007) rather than traditional 'practice-instruct-practice' cycle. While the distinctive TGfU-GS pedagogical feature of guiding learning by the pedagogical use of questions was common, (63% [N=41] of respondents indicated use of this pedagogical tool), it did not appear to be a consistent practice. 23% (N=15 respondents) indicated consistent use of predetermined questions in the enactment of sport teaching. There appeared less engagement with the act of pre-planning questions as part of curriculum lesson design, with 13% (N=8) regularly engaging in this aspect of lesson planning. Additionally, 14% (N=9) of respondents consistently used a 'question first' approach to emphases a learner centred environment for the construction of game knowledge.

In a TGfU-GS model game categories provide a construct through which to link game knowledge across sports within the same category (den Duyn, 1997b). 28% (N=18) of respondents used game categories to

connect game understanding and tactical appreciation between sports in the same game category. The conceptual elements of sport related games teaching did not feature as consistent curriculum features. Teaching players to read the play and develop appreciation of the 'patterns of play' which can develop in games featured in 28% (N=15) of teachers enactment of sport teaching. However, 41% (N=26) reported the deliberate teaching of the 'principles of play' inherent in the sport being taught. A tactical problem solving focus featured in 36% (N=23) of respondents sport teaching, however, the use of a tactical focus to provide lesson activity coherence featured as a regular curriculum feature in 13% (N=8) of respondents. In the area of student game assessment, 16% (N=10) regularly considered how to gather data to measure the level of success in both 'on-the-ball and off-the-ball' phases of game play, while 17% (N=11) considered this both sometimes. Teacher planning for the coherent progressive teaching of game knowledge and understanding, and not just 'skill' featured in 33% (N=21) of respondents teaching, of which 17% (N=11) regularly undertook this as a planning activity.

The qualitative themes which emerged from the data are summarised in Table 2.

Table 2. *The qualitative themes which emerging from the TGfU-Game Sense Web survey data*

□ TGfU-Game Sense pedagogy is more suited to senior level physical education.
□ TGfU-Game Sense is more suited to team games and invasion games.
□ Questions are frequently used as an instructional strategy and this is not seen as distinctive to a TGfU-Game Sense approach.
□ Teacher ability and inexperience ~ training with the TGfU approach is a barrier to using a TGfU model.
□ Small sided modified games are frequently as part of sport teaching pedagogy, and not seen as distinctively TGfU-Game Sense related.
□ Most of the respondents did not consider how game knowledge and understanding can be developed coherently and sequentially from unit to unit of work, or from year level to year level.
□ The collection of data from game observation that informs both the level of involvement of players and the level of success of the involvement in both 'on the ball' and 'off the ball' elements of game play is not common practice.
□ Planning game and sport teaching from the premise that the uniqueness of a game lies in the thinking and decision making (cognition) that occurs in the game is not common practice.
□ Modification of game rules to restrict how a game can be played to emphasise game understanding, such as particular game tactic or principle of play, is common practice.

Discussion

One of the major conceptual shifts in teaching that awareness of TGfU-GS approach implies is that the uniqueness of a game lies in thinking and decision making that occurs as players read the game environment and then respond with an appropriate movement selection. The results from this analysis of teachers' engagement with TGfU-GS suggest that thinking about games and sport teaching from this perspective is not a common feature of the teaching practice of physical education teachers. However, it was more likely that a TGfU-GS approach would be adopted in senior years' physical education. As one respondent noted, they would use it "*at senior level when a deeper understanding of the game is required. It takes a long time to assess and there isn't always time in the lower years*". This comment also provided an example of the common suggestion of short duration 'multi-activity' (Alexander, 2008; Kirk, 2010) programming in the qualitative data. Another example typical of comments indicating a multi-activity curriculum was common in schools was, "*when you have 3 week units we usually only get to cover basics*". It was not always possible that teachers could alter this curriculum design as "*the curriculum planning is out of my hands*", being controlled by another member of the staff. "*It is considered by the head of the faculty*".

"*Lack of curriculum models, lack of knowledge, lack of time to develop curriculum modules, lack of help*". An absence of experience with, and exposure to, student-centred styles (Green, 2000) such as TGfU-GS is indicated in the results of this study. *"Have not had much exposure to the principals etc"*. Respondents felt that a lack of experience and exposure to TGfU-GS teaching was a constraint on their ability to design and enact this type of teaching. "*Easy to say, in practice it is very difficult to achieve*". While the data indicated teachers used questions as pedagogy, planning to guide learning using question as pedagogy occurring as a deliberately planned for teaching strategy did not feature as a prominent planning practice. For example, "*I often use questions to develop the students' tactical understanding of the game, not sure they are predetermined? But usually asked in relation to something that has happened whilst playing the game*".

Lortie (1975) explained how teaching behaviour is for many teachers an unproblematic and unanalysed practice which remains largely intuitive and imitative. Buchmann (1987) expanded this observation of teaching further, describing most teachers practice as comprising "ready made recipes for action and interpretation that do not require testing or analysis while promising familiar, safe results" (p. 161). Teachers therefore often proceed with the design and enactment of teaching through a series of tried by experience assumptions and strategies, creating a type of default setting for decision making (Tomlinson, 1999). This may explain the lack of

substantive penetration of TGfU-GS thinking into curriculum design and enactment. The absence of role modelling and opportunities to observe and experience TGfU-GS teaching creates a self perpetuating constraint upon the potential of assumptions and ideas for practice stemming from 'rethinking games teaching' (Thorpe, Bunker & Almond, 1986).

Another possible explanation for lack of penetration of TGfU-GS is provided by Groundwater Smith (1992). Groundwater-Smith (1992) explained that teaching is first and foremost a social practice. As a social practice, there exists a culture within the community of practice of each subject area of the curriculum. This culture has an oral discourse, values and ideology that communicates within and beyond the community of practice what is normal and expected of teaching and learning. Disrupting this entrenched normatised professional reality is an inherently difficult proposition, as the results of this study imply. This is captured in this respondents comment: "*There is a widespread expectation that we are just teaching them how to play Interschool sports*". Student expectations of the sport experience in physical education are also part of the social practice of physical education. Respondents commented that a TGfU-GS approach was constrained by students' expectations of the enacted curriculum. For example, "*skill practice though drill is the most appropriate way to meet the desires of the students*" and, "*students not wanting to investigate their own development and reflect* " . As TGfU- GS is not just a pedagogical adjustment to games and sport teaching but a paradigmatic change (Sweeney, Everitt & Carifio, 2003) it confronts cultural resistance as well as resistance from the 'everyday philosophy' (Green, 1998) of individual teachers.

Moving forward with the implementation of innovation that reinvigorates the teaching of games and sports in Australian schools

Green (1998) explained the problematic nature of disrupting the cultural and social processes of physical education to bring about change for the enhancement of teaching and learning in physical education. Green suggested that helping teachers' see how a redirection of practice helps with meeting the everyday demands and constraints of teaching, assisting to effectively improve the everyday reality of teaching for the teacher, could be an effective strategy. Green advised to concentrate less on the formally articulated nature and philosophy of a teaching approach like TGfU-Game Sense and "more on the everyday practical constraints on the PE teacher (1998, p.135).

The evidence from this research is that pedagogy associated with a TGfU-GS approach was not seen as necessarily distinctive to TGfU-GS. That many teachers already enacted teaching using game-centred (Pill, 2007) strategies suggested that TGfU-GS could be packaged less as a 'radical reform' (Kirk, 2010) or 'paradigmc shift' (Butler & McCahan, 2005; Clennett & Brooker, 2006; Richard & Wallian, 2005) and more as a realignment of practice or more prominent foregrounding that many teachers already teach in a manner not too far removed from the beginnings of a TGfU-GS approach. Green (1998) explained that physical education teachers practice was more likely to emerge from the practical realties of teaching and the everyday philosophy of the community of practice within which the professional identity of the teacher is subject to influence. Presenting TGfU-GS as a change in emphasis rather than a change in practice (and as such, not disruptive to the established cultural norm of the physical educator) could mean that TGfU-GS is more palatable to the teacher and, therefore, more likely to be assimilated into the valued ideology and practice of physical education teachers.

One of the interesting findings emerging from this paper is the absence of school based research related to the implementation of TGfU-GS in Australian physical education. An absence of reporting of efforts in this area of sport related games and sport teaching and learning could be a contributor to the lack of progress in establishing TGfU-GS as valued practice in school settings. The absence of an Australian 'teaching games and sport for understanding' research narrative I argue is a constraint on informed consideration of the merits and possibilities for TGfU-GS practice for individual physical education teachers and specific school contexts. There appears a need to build empirical evidence of the validity and worthiness of TGfU-GS as a pedagogical model (Metzler, 2005; Webb, Pearson & Forest, 2006) for Australian schools that achieves sport learning outcomes in physical education.

Conclusion

The results of this study indicate that as a pedagogical model, TGfU-GS has not substantially influenced the physical education teaching practice of the teachers surveyed. However, some instructional elements consistent with a TGfU-GS approach are common practice. It may then be possible to further the penetration of TGfU-GS as valued and valuable for enhanced game learning by highlighting starting points for a TGfU-GS approach are already evident in the work of many teachers. Therefore, TGfU-GS may not represent a 'rethinking', 'new approach' or 'paradigm shift' in thinking about game and sport teaching but rather a refining and further development of existing practices.

Traditional physical education teaching has emphasised motor skill development and fitness for games and sport. TGfU-GS presents alternative adjustment of emphasis to thinking-decision making, fitness and motor skill development as combining to express game competency. Kinchin and O'Sullivan (2003) wrote that this

change in emphasis moves teaching from 'teacher centred' to 'learner centred' with an emphasis on "teaching for understanding". While this can be framed as in conflict with traditional ideologies focussing on reproductive teaching enacted as direct teaching, and as challenging the normative habits of the physical education community of practice, this paper has considered that it may not need to be so.

While it is difficult to speculate broadly from one study, the indications from the analysis of the data collected for this study is that in the fifteen years since Game Sense emerged in Australian sport and sport related games teaching literature it has not substantially influenced the practice of physical education teachers. Tinning et al. (2001) wrote that "it is ultimately up to the teacher as to whether curriculum change or reform will live or die" (p. 229). This points to the essential nature of reforming, or reformatting, physical education teaching through the understanding of their work that teachers bring to the design and enactment of curriculum. The implementation of innovation that reinvigorates the teaching of games and sports in Australian schools through progressive pedagogical practice such as TGfU-GS must, I suggest, happen with teachers and from within the physical education community of practice. It must be seen to assist the effort of the teacher in meeting the everyday realities of their work, rather than a complete challenge to their existing orthodoxy. I argue that demonstrating how TGfU-GS achieves both enhanced learning and learning engagement through pedagogical adjustments to existing practice should be a focus of future TGfU-GS school research. A suitable framework would be research in the 'pedagogue tradition' (Bishop, 1992; Pill, 2008). Research in the 'pedagogue tradition' moves away from idealised situations to which educational reality should aim and research that seeks to explain educational reality or to establish a rigorously defendable theoretical position, to direct improvement of teaching through accumulated shared wisdom of teachers exploring their practice. This is summarised by Bishop (1998), who wrote that "the pedagogue tends to involve teachers *in* the research process" (p. 38). This is not withstanding the need for more TGfU-GS research in Australian sport teaching generally.

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