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# THE INTEGRATION OF TGFU INTO THE SECONDARY SCHOOL PHYSICAL EDUCATION CURRICULUM – HOW SUCCESSFUL HAS IT BEEN?

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## ABSTRACT

***In 2005, a new Personal Development, Health and Physical Education (PDHPE) Years 7–10 Syllabus (Board of Studies, 2003) was implemented in NSW (Australia) secondary schools. One area that underwent major changes within the syllabus was that of the teaching of games, with the move towards a TGfU framework. Forty PDHPE teachers were surveyed with questionnaires and focus group interviews to determine their knowledge and understanding of TGfU and the extent to which they have incorporated TGfU into their teaching of games. Pre-service teachers' observations of Physical Education classes were also used to determine the extent that TGfU was being implemented. Fifty-five percent of PDHPE teachers surveyed had poor knowledge and understanding of TGfU, with 32% unaware that the principles of TGfU were written into the PDHPE syllabus. Forty-five percent of teachers reported that they had incorporated TGfU to some extent into their teaching of games, however only 22% of pre-service teachers surveyed indicated that they had observed classes that incorporated TGfU principles. Continuing teacher training and development is required to support teachers in developing an understanding and skills necessary to utilise a TGfU approach that underpins the teaching of games within the new NSW Years 7-10 PDHPE syllabus.***

*Keywords:* *quality games teaching*

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## INTRODUCTION

Whist the concept Teaching Games for Understanding (TGfU) has been around in the literature since the early 1980s, it was not introduced to the Australian sporting community at large until 1996, when Rod Thorpe from Loughborough University, England was brought out by the Australian Sports Commission (ASC) and conducted TGfU workshops around the country. Since Thorpe's visit, many sporting authorities (for example, Australian Sports Commission, Australian Touch Association, Australian Football Federation, Australian Rugby Union), universities and state education bodies have promoted the TGfU approach via professional development and accreditation courses over the last decade. Teaching and coaching resources have been developed and continually updated. A number of tertiary institutions across the country involved in physical education and sports coaching incorporated TGfU concepts into their curricula. However, it has only been recently that the concept of TGfU has been written into secondary school syllabus documents. In 2005, a new *Personal Development, Health and Physical Education (PDHPE) Years 7–10 Syllabus* (Board of Studies, 2003) was implemented in NSW (Australia) secondary schools. One area that underwent major changes within the syllabus was that of the teaching of games, with the move towards a TGfU framework (Werner, Thorpe & Bunker, 1996). This change has implications for practicing teachers in relation to both the content and teaching strategies traditionally utilised in the teaching of games.

Research (Curry & Light , 2006; Light, 2002, 2003; Pearson, Webb & McKeen, 2008; Thomas, 1997a; Turner & Martinek,1999) indicates the strengths of the TGfU approach and the desirability of it as one of the major approaches to the teaching of games in the new PDHPE syllabus. The aim of the Years 7-10 PDHPE syllabus is to 'develop students' capacity to enhance personal health and wellbeing, enjoy and active lifestyle, maximise movement potential and promote lifelong health and physical activity' (Board of Studies, 2003, p.11). Given the decreased involvement of children in physical activity, TGfU is aimed at encouraging children to become more tactically aware and to make better decisions during the game. As well, it encourages children to begin thinking strategically about game concepts whilst developing skills within a realistic context whilst increasing participation and enjoyment. Essentially by focusing on the game (not necessarily the 'full' game), players are encouraged to develop a greater understanding of the game being played. Thomas (1997b) states that the desired effect of this is 'players/students who are more tactically aware and are able to make better decisions during the game, thereby adding to their enjoyment of playing the game' (p.3). Research by McKeen, Webb and Pearson (2007) support the increased enjoyment of students exposed to the TGfU approach compared to traditional teaching of games. TGfU has been shown to result in improved learning outcomes for students. Games are a significant component of the physical education curriculum, with research suggesting that '65 per cent or more of the time spent in physical education is allotted to games' (Werner et al, 1996, p.28).

***After a series of TGfU workshops where PDHPE teachers were asked to identify what they perceived as the strengths of TGfU, a number of themes emerge. Teaching Games for Understanding was found to:***

- encourage a holistic approach to the teaching of games
- develop critical thinking and problem solving
- develop deep knowledge and understanding of the game
- promote high levels of participation and enjoyment for participants
- promote player centred learning and relevance of skills and tactics
- cater for varying abilities
- foster efficiency in aspects of implementation (Webb, Pearson & McKeen, 2006).

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Following are some specific references to TGfU principles from the Years 7-10 PDHPE syllabus (Board of Studies, 2003):

1. 'demonstrate movement skills through a range of experiences including: games from categories such as target, striking/fielding, invasion and net/court' (p.24)
2. 'participate in a range of movement activities that demonstrate and enhance their ability to improvise movements to solve problems eg defending or attacking strategies' (p.25)
3. 'adapt, transfer and improvise movement in increasingly demanding contexts eg varying space, rules, equipment and apparatus, time restrictions' (p.35)
4. 'design and participate in modified activities to improve performance and promote safe participation in increasingly complex and challenging situations' (p.35)

Such prescriptive content of what students should be learning would indicate that for effective teaching these learning outcomes would be seen in Years 7-10 Physical Education lessons in NSW schools.

A discussion paper entitled *Quality teaching in NSW public schools* (NSW DET, 2003) was developed to improve teaching practice and hence student learning outcomes. This led to further initiatives to ensure quality teaching was occurring in all NSW schools, one of which was the establishment of the NSW Institute of Teachers in 2004. The NSW Institute of Teachers is a statutory authority for the regulation and promotion of the teaching profession in NSW established under the *Institute of Teachers Act 2004*. The Institute supports quality teaching in all NSW schools. Its charter is to advance the status and standing of the teaching profession. The Institute oversees a system of accreditation and recognition of teachers' professional capacity against professional teaching standards. It also provides a process for the profession to contribute to the development and implementation of initial teacher education and continuing professional development. The Institute is also the accrediting body for all NSW initial teacher education programs. This process involves accrediting those programs that meet the requirements of specific teaching areas and satisfy the Professional Teaching Standards of a graduate teacher at the completion of a four-year degree (NSW Institute of Teachers, 2009).

The standards are intended to describe the nature of teachers' work in three domains: Professional Knowledge, Professional Practice and Professional Commitment. There are seven elements that describe the areas encompassed within these domains. They are:

- Teachers know their subject/content and how to teach that content to students
- Teachers know their students and how students learn
- Teachers plan, assess and report for effective learning
- Teachers communicate effectively with their students
- Teachers create and maintain safe and challenging learning environments through the use of classroom management skills
- Teachers continually improve their professional knowledge and practice
  Teachers are actively engaged members of the profession and the wider community (NSWIT, 2009, p.3)

The Quality Teaching model (NSW DET, 2003) and new syllabus outcomes (Board of Studies, 2003) highlight the need for students to not only participate, but also to be cognitively involved in games lessons. Quality teaching is about what students learn, not just about what they do. TGfU allows students to understand how to use the skills they are acquiring and why they need these skills to play the game. The TGfU approach challenges teachers and coaches to understand the deep intellectual structures of playing and learning to teach a game effectively (Hopper, 2002).

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## AREA OF STUDY

Now, five years on from the current PDHPE syllabus implementation, this study investigated whether Physical Educators in NSW secondary schools have adopted the TGfU approach to the teaching of games in their classes. This paper also discusses how TGfU has been incorporated into a new Bachelor of Physical and Health Education degree (fully accredited by the NSW Institute of Teachers) that commenced in 2008 at an Australian university.

## METHOD

This study involved a two-phase process (see Figure 1) to determine the extent to which PDHPE teachers have incorporated TGfU into their teaching of games in Years 7 to 10 since the mandatory implementation (in 2005) of the new PDHPE syllabus. Phase 1: PDHPE teachers (n=40) were surveyed with questionnaires and focus group interviews to determine their knowledge and understanding of TGfU and the extent to which they have incorporated TGfU into their teaching of games. Phase 2: Third-year Physical and Health Education pre-service teachers (n=50) were also surveyed via questionnaire and focus group interviews after completing their Professional Experience in the schools of the teachers surveyed. The pre-service teachers' observations of Physical Education classes in the schools were used to determine the extent that TGfU was being used in the teaching of games within those schools.

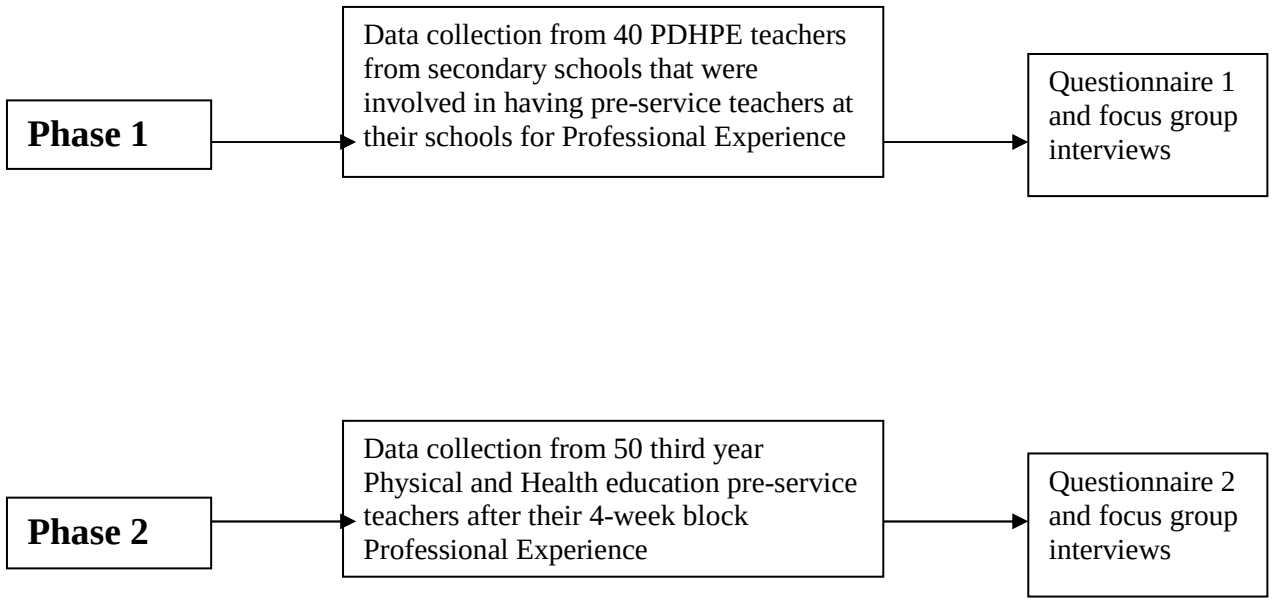


**Figure 1.** Phases in the study

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The study was conducted in October-November 2009. The participating PDHPE teachers were from local regional NSW schools that the regional university utilised for Professional Experience for its pre-service teachers. The participating pre-service teachers were in the third year of a four-year Bachelor of Physical and Health Education degree.

The teacher questionnaire consisted of Likert scale questions, short answer questions and space for written comments. The questions focused on teachers' knowledge and understanding of TGfU, their awareness of TGfU principles in the Year 7-10 PDHPE syllabus (Board of Studies, 2003) and their use of TGfU in their teaching of games. This was followed up by two focus group interviews of four teachers in each group to triangulate data from the questionnaires. The pre-service teacher questionnaire consisted of questions related to their observation of TGfU in practice at the schools at which they were located for their Professional Experience. This was followed up by two focus group interviews of four students in each group to gather further information as to what was observed.

***Data were tabulated to summarise the results of each focus question. Descriptive statistics were also generated to provide frequency distributions for responses to each of the questions.***

## RESULTS

### Phase 1

Twenty-two (55%) of PDHPE teachers surveyed had poor knowledge and understanding of TGfU (see Table 1). Thirteen (32%) were unaware that the principles of TGfU were incorporated into the NSW PDHPE syllabus (see Table 2).

**Table 1.** PDHPE teachers' knowledge and understanding of TGfU (n=40).

| **Knowledge** | **Poor** | **General** | **Good** | **Excellent** |
|---|---|---|---|---|
| **Results** | 22 (55%) | 10 (25%) | 6 (15%) | 2 (5%) |

Those that had poor knowledge could not list the game categories that TGfU utilises and could not provide relevant examples of TGfU principles (eg. inquiry oriented, problem-solving and developing tactical skills) in the teaching of games. Teachers who had a general knowledge of TGfU were able to provide an appropriate description of TGfU and some of the game categories. Teachers with good knowledge were able to provide some specific examples of TGfU principles in the teaching of games. The two participants that demonstrated excellent knowledge and understanding were able to provide an in-depth overview of TGfU and specific examples in all game categories.

**Table 2.** PDHPE teachers' awareness of TGfU in the PDHPE syllabus (n=40).

| **Awareness** | **Poor (nil)** | **General** | **Good** | **Excellent** |
|---|---|---|---|---|
| **Results** | 13 (32.5%) | 21 (52.5%) | 4 (10%) | 2 (5%) |

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Teachers who had no awareness honestly stated that they were unaware that game sense [TGfU] principles were incorporated into the Year 7-10 PDHPE syllabus (Board of Studies, 2003). Just over half the participants had a general awareness indicating that they were aware that TGfU was written into the syllabus and could identify which strands of the syllabus but could not provide specific examples. Those that had good awareness were able to state their awareness of the TGfU game categories and principles of developing strategies and tactics through a problem solving approach. Excellent awareness was demonstrated by two teachers that were able to cite specific outcomes from the syllabus in both stages 4 (Years 7-8) and 5 (Years 9-10). Eighteen (45%) of teachers reported that they had incorporated TGfU to some extent or more into their teaching of games (see Table 3).

**Table 3.** PDHPE teachers' incorporation of TGfU into games teaching (n=40).

| **Incorporation of TGfU into teaching** | **Poor (nil)** | **General** | **Good** | **Excellent** |
|---|---|---|---|---|
| **Results** | 22 (55%) | 16 (40%) | 2 (5%) | 0 (0%) |

Data from focus group interviews supported the results from the questionnaires. Teachers generally indicated that they had not changed the way they teach games after the introduction of the new Year 7-10 PDHPE syllabus in 2005. Some early career teachers indicated that this was the only syllabus that they had taught from and therefore incorporated principles of TGfU.

### Phase 2

Only eleven (22%) of pre-service teachers surveyed indicated that they had observed any classes during their Professional Experience that incorporated TGfU principles (see Table 4).

**Table 4.** Pre-service teachers' observation of TGfU in games teaching (n=50).

| **Observation of TGfU in teaching** | **None** | **Some** | **Considerable** | **Extensive** |
|---|---|---|---|---|
| **Results** | 39 (78%) | 11 (22%) | 0 (0%) | 0 (0%) |

From focus group interviews, the pre-service teachers indicated that they all observed PDHPE teachers teaching games whilst they were at the schools (4 week period). However, the majority of the games lessons observed were quite traditional, in that skills were taught in isolation and then followed by a game, sometimes modified. When in the game situation, the game was refereed according to the rules with little no evidence of students being asked to problem solve or questioned on strategy and tactics.

## DISCUSSION

***Results from the first stage demonstrated that there are still many PDHPE teachers that have little knowledge of TGfU and who adopt the traditional skill development approach to the teaching of games. This has not appeared to have changed from the results of an earlier study conducted in 2005 involving***

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***PDHPE teachers across NSW (Pearson & Webb, 2009). 'I have not changed the way I teach games from the previous syllabus to the new syllabus' (male PDHPE teacher) was a repeated statement from a number of the participating teachers. Many practicing PDHPE teachers have poor knowledge and understanding of the TGfU approach and the teaching strategies for successfully integrating TGfU into the curriculum.***

***'I'm happy if the students participate, have fun and nobody gets hurt' (female PDHPE teacher) was also a common theme amongst the participating teachers in relation to a games lesson. However, there is much more to games teaching than students participating, there needs to be specific learning outcomes. Pearson, Webb and McKeen (2008) linked TGfU to quality teaching by demonstrating how cognitive abilities can be developed through games. Many teachers still view a successful physical education lesson as one that has a high participation rate, is enjoyable and has minimal misbehaviour (Webb, Pearson & McKeen, 2006). PDHPE teachers that embrace the TGfU approach will not only be able to meet the requirements of the NSW Quality Teaching Framework and the Year 7-10 PDHPE syllabus (Board of Studies, 2003) but will also be able to provide high quality learning experiences for students and make a start toward making physical education a truly valuable educational experience in NSW schools (Curry & Light, 2006).***

***It is important to note that individual schools are responsible for their own programming and therefore there was a range in the type of physical activities and games that were observed by the pre-service teachers. The integration of TGfU in games teaching may well have occurred at other times throughout the teaching year. However, all 50 pre-service teachers indicated that they had observed games lessons taught by teachers at their respective schools during their Professional Experience. Results indicated that only 22% of teachers included any observable TGfU principles (eg. inquiry oriented, problem-solving and developing tactical skills) in their games teaching. 'Most games lessons that I observed involved a brief teacher led warm-up, a few skill drills and then students playing the game … or just students playing the game' (female pre-service teacher). Another pre-service teacher (male) commented 'when I taught a TGfU based games lesson, my supervising teacher thought that it was quite disjointed and didn't allow for maximum participation'. It appears from other comments from pre-service teachers that there wasn't much support for TGfU in the teaching of games in the schools that they were located. Comments such as '...it [TGfU] doesn't work' and 'students don't learn skills through game sense [TGfU]' demonstrate the lack of understanding and support for TGfU from participating PDHPE teachers.***

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***There is still a gap between research on teaching and learning games and sport and TGfU practices and development. It is difficult for knowledge to penetrate into the existing practices of teachers (Grétiaigne, Richard & Griffin, 2005). Given that TGfU is still new for many current Physical and Health Education teachers and students, there needs to be continuing awareness and development of TGfU in teacher training institutions. This is paramount for the opportunity of the TGfU approach to be adopted by teachers throughout Australia.***

***Change in educational institutions is traditionally slow. It is anticipated that with the current changes in pre-service teacher education and the NSW Institute of Teachers' new accreditation scheme, teachers will be more accountable for what happens in their teaching. For TGfU to become more commonplace in the teaching of games in schools, it needs to have a solid base in pre-service teacher education programs. As part of the new Year 7-10 PDHPE syllabus (Board of Studies, 2003) and the NSW Institute of Teachers' accreditation process, the Australian university where this study was located developed a new Physical and Health Education degree structure. While the Faculty of Education offered a four year Bachelor of Education (Physical and Health Education) for many years, this new course responded to a number of influences that emerged during the life of the previous program:***

- external reviews of teacher education and related fields;
- research developments in education and teacher education in particular;
- the advent of the NSW Institute of Teachers (NSWIT), which has produced a set of Professional Teaching Standards to which our graduates must conform;
- developments in teaching practice, such as the Quality Teaching (QT) initiative of the NSW Department of Education and Training (DET), the largest employer of the graduates;
- changes in health knowledge and the role of physical education in the well-being of adolescents; and
- further increase in public, political and media scrutiny of teacher education and school and university education more generally.

Professional bodies, industry employer groups, academics and external experts from other teacher education institutions, curriculum specialists, and practicing teachers were consulted in the development of the program. It was agreed that the new degree structure would provide students with a stronger theoretical foundation, further opportunities for professional development and extended opportunities for professional mentoring. This was achieved through the incorporation into the design of the new Physical and Health Education degree structure, three phases (foundation, consolidation and transition) that are a focus for content, delivery, learning outcomes and assessment for each subject within the phase. Additionally this structure provides a means of considering the relationship between subjects within the phase. This horizontal structure formalises previously loose and incidental connections between subjects in a horizontal direction.

One of the decisions was to firmly embed TGfU throughout the movement and pedagogy strands of the new degree. Table 5 shows how TGfU has been incorporated across subjects within the new Bachelor of Physical and Health Education program.

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**Table 5.** Bachelor of Physical and Health Education subjects incorporating TGfU (commenced 2008)

| *Year* | *Subject with specific TGfU components* | *Supported by Pedagogy subjects* | *Enhanced by Professional Experience in schools* |
|---|---|---|---|
| *1st* | *Foundations of Movement Skill Acquisition* | *Foundations of Teaching and Learning in Physical and Health Education* | *10 rolling days over 10 weeks in Primary school* |
| *2nd* | *Teaching and learning net court, striking and target games* | *Quality Teaching and Learning in Physical and Health Education* | *3 week block in secondary school* |
| *3rd* | *Teaching and learning invasion games* | *Curriculum Perspectives in Physical and Health Education* | *4 week block in secondary school* |
| *4th* | *Promoting lifelong physical activity* | *Leadership, Management and Professional learning in Physical and Health Education* | *7 week Internship in secondary school* |

***Descriptions of the some of the movement subjects are provided below:***

1st Year - Foundations of Movement Skill Acquisition
This subject will engage students in theoretical and practical experiences that will examine the fundamental principles underlying all movement and identify how these principles impact on the development of specialised skills and the promotion of lifelong physical activity. The categories of games, the principles of play and the basic principles underpinning the individualisation of instruction for exceptional learners in physical activity settings will be introduced in this foundation subject.

2nd year - Teaching and learning net court, striking and target games
This subject will actively engage participants in a variety of games (net/wall, striking/fielding and target) that demonstrate the different approaches to the teaching and learning of games. Key game concepts will be explored in a variety of increasingly complex contexts and integrated with learning theories relating to enhancing student learning. Demonstrated game skills and teaching competencies in selected games will be required.

3rd Year - Teaching and learning invasion games
This subject will actively engage participants in a variety of invasion games that demonstrate the different approaches to the teaching and learning of games. Core game concepts related to invasion games will be explored in a variety of increasingly complex contexts and integrated with learning theories to allow analysis

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and evaluation of a variety of pedagogical approaches used for teaching games which can then be incorporated into unit and program design. Demonstrated game skill and teaching competencies in selected games will be required.

4th year - Promoting lifelong physical activity

This is a core subject and the final in a sequence of five subjects that focus on movement skill acquisition and the promotion of lifelong physical activity. With research clearly confirming the short and long term health benefits of physical activity the need for all individuals to adopt lifelong physical activity is vital. This subject will examine opportunities for physical activity over the lifespan and analyse the barriers to physical activity. Students will participate in and research a broad range of movement experiences – competitive and non-competitive, individual, group and team, recreational, health and fitness and outdoor education challenges. Planning programs for groups and individuals in fitness and physical activity in both school and community settings will be examined.

These are core subjects that explore the pedagogical basis of TGfU with specific links to programming of games teaching and Professional Experience for pre-service teachers. It is anticipated that with a strong focus on TGfU throughout the new Bachelor of Physical and Health Education program, TGfU will become much more commonplace in the teaching of games in NSW schools than the results of this study have indicated.

## CONCLUSION

***The monitoring of standards and the quality of teaching performance has become very apparent in NSW public schools and requires teachers to adopt effective teaching strategies. The central component of TGfU – an inquiry oriented and problem solving approach to develop tactical understanding – fits well into this prescribed pedagogy for the teaching of games. Physical education teachers must provide opportunities for students to gain knowledge and learn during games lessons. The Quality Teaching framework suggested for public schools in NSW reinforces mandatory syllabus outcomes by requiring teachers to have deep knowledge and understanding of concepts and ideas and for students to be challenged and be engaged in critical thinking and decision making.***

***From the results of this study, it must be concluded that the integration of TGfU into the NSW secondary school physical education curriculum has so far been unsuccessful. It is essential that quality physical education has student learning as a central consideration and focuses on developing knowledge for life-long physical activity (Hickson, 2003). Whilst TGfU is not the only pedagogical model for teaching games, it is most certainly one that encapsulates the dimensions of quality games teaching. Continuing teacher training and development is required to support teachers in developing an understanding and***

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***skills necessary to utilise a TGfU approach that underpins the teaching of games within the NSW 7-10 PDHPE syllabus (Board of Studies, 2003).***

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