

Teaching Games for Understanding in the Asia-Pacific Region

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Editors: Raymond Liu
Chung Li
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Preface

Since 1994, the Teaching Games for Understanding (TGfU) has been introduced to Hong Kong for more than 10 years. It is an innovative approach to teach ball games and has provided a strong impact to Hong Kong PE teachers to re-think their games teaching approach in their PE lessons. To strengthen their understanding on the TGfU and celebrate its 10th anniversary, we organized the III Teaching Games for Understanding International Conference in Hong Kong in December, 2005. Many overseas and local scholars, coaches, PE teachers and students attended and the feedback was very positive and well-received.

This book is the collection of those papers presented in the Conference. It covers both theory and practical elements of the TGfU from the Asia-Pacific Region such as Australia, New Zealand, Singapore, Taiwan and Hong Kong. All papers have gone through double blind peer reviewed before being accepted for publication. Special thanks should go to the three reviewers, Lobo Louie, Walter Ho and Kuan Rou Huang, for their hard work. We sincerely hope that this book is useful to all interested readers and will contribute to the further development of the TGfU.

Raymond Liu
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Teaching Games for Understanding – 10 years in Australia

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Abstract

Teaching Games for Understanding (TGfU) was introduced to the Australian sporting community in 1996, through workshops presented by Rod Thorpe who was visiting from Loughborough University, England. Now, 10 years on, with the concept having been the focus of many coaching workshops and professional development sessions for physical education teachers and sports coaches, one would expect that TGfU would be well known and utilised among these groups.

This paper reports on the knowledge, understanding and experience that first year physical and health education students at an Australian university have on TGfU. Seventy students were surveyed by questionnaire and then actively engaged in a variety of games that demonstrated the concept and the type of questioning that is prominent in the approach.

The students surveyed had studied physical education during their primary and secondary schooling, and many had been involved as players and coaches in a wide range of sports. Consequently, one would expect that these students would have had prior exposure to TGfU. However, findings confirmed that this group of students had poor knowledge, understanding and experience of TGfU, thus questioning the extent that the approach has been adopted by Australian coaches and teachers of games over the last decade.

Keywords: Australian sporting community, TGfU approach, History

Introduction – Teaching Games for Understanding in Australia

Whilst 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.

Teaching Games for Understanding places an emphasis on the play, where tactical and strategic problems are posed in a modified game environment, ultimately drawing upon students to make decisions. It places the focus of a lesson on the student in a game situation where cognitive skills such as 'tactics, decision-making and problem solving are critical... 'with isolated technique development utilised only when the student recognises the need for it' (Webb & Thompson, 1998: p.1). There is other terminology and variations of Bunker and

Thorpe's (1982) 'Teaching Games for Understanding'. Some of these include: 'Game sense' (ASC, 1999), 'Play Practice' (Lauder, 2001), the 'Games Concept Approach' (Wright, Fry, McNeill, Tan, Tan & Schemp, 2001, cited in Light, 2003) and more recently, 'Playing for life' (ASC, 2005).

Teachers and coaches have been teaching games for many years in physical education lessons and with sporting teams. The difference with TGfU is the approach that is used. The key to the teacher/coach is the questioning technique and the relevance to the student of the introduction of rules and techniques. The focus is on the student and problem solving. In addition, fun is the key ingredient. TGfU is an approach to teaching that makes very effective use of active learning in that the students are learning through playing the games. The use of questioning is a powerful method of encouraging players to analyse their actions, both individually, and as a team. Questions will generally relate to a particular tactical aspect. Effective phrasing of questions can also help to guide the player to an answer, in the event that they are struggling with an activity. Age, experience and ability level of the players will affect the complexity of the questions used.

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 with Year 7 and Year 9 students in New South Wales (NSW) secondary schools. One area that has undergone major changes within the syllabus has been that of the teaching of games, with the move towards a TGfU framework. This change has implications for practicing teachers in relation to both the content and teaching strategies traditionally utilised in the teaching of games.

Primary aged children have recently been exposed to TGfU concepts through the Australian Sports Commission's 'Playing for life' approach adopted in their Active After School Communities (AASC) coach training program. AASC is a national program that is part of the Australian Commonwealth Government's \$116 million Building a Healthy, Active Australia package. It provides primary aged school children with access to free, structured physical activity programs in the after school time slot of 3.30 pm to 5.30 pm. The program is designed to engage traditionally non-active children in physical activity and to build pathways with local community organisations, including sporting clubs (ASC, 2005). 'Playing for life' is an approach to coaching that uses games as the focus of development. By concentrating on game-based activities, children are able to: develop skills within a realistic and enjoyable context, rather than practising them in isolation and from a technical perspective. Become maximally engaged in dynamic game-based activities that use a fun approach to developing a range of motor skills' (ASC, 2005, p.53).

Research (Light, 2002, 2003; Thomas, 1997a; Turner & Martinek, 1999; Werner, Thorpe & Bunker, 1996) indicates the strengths of the TGfU approach and the desirability of it as one of the major approaches to quality teaching of games. Light (2002) highlighted the effectiveness of TGfU for engagement and cognitive learning. Higher order thinking occurs



from questioning and discussion about tactics and strategies and also ‘through the intelligent movements of the body during games’ (Light, 2002, p.23). Cognitive development through decision-making and tactical exploration is combined with skill development within modified games to provide meaningful contexts. Light (2002) suggests that it is difficult for some physical educators to address cognition in games. TGfU is one pedagogical approach that may assist teachers and coaches to address this issue.

Light (2003) examined the response for TGfU pedagogical approach in an Australian University to Bachelor of Education students studying primary teaching. Student evaluations were generally positive indicating an increase in enjoyment, understanding and cognitive engagement in the games. In comparing games sense to skill-based teaching, Werner et al, (1996) state that... ‘while the teacher may be convinced that skill-based lessons are having a positive effect in that some immediate skill improvement is made, the social and skill related interactions might over time convince the youngsters of their lack of ability’ (p.32). Thorpe and Bunker (1986, cited in Allison & Thorpe, 1997) argued that a skill-based approach to teaching less physically able students is likely to: ‘...result in a sense of failure, a lack of enjoyment, poor self-concept and subsequently inhibition of long term participation’ (p.11). In contrast to this, the students who exhibited low physical and technical ability in the TGfU lessons consistently reported significantly higher and more positive scores for these same factors. ‘It appears that a skill-based approach serves only to highlight, confirm and reinforce – often publicly – the pupils lack of physical ability’ (Allison & Thorpe, 1997, p.12).

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 and most importantly, having fun. 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 (2005) 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).

Following TGfU workshops where participants were asked to identify what they perceived as the strengths of TGfU, a number of themes emerge. TGfU 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, 2005)

Investigating the knowledge and understanding of TGfU as a strategy for teaching games

In order to investigate the current knowledge and understanding of TGfU, a two-stage process was implemented. The first stage involved a survey of practicing physical education teachers across New South Wales. This information was collected over 12 professional development workshops conducted by the authors during 2004-5. Results for the first stage demonstrated that there are still many Personal Development, Health and Physical Education (PDHPE) teachers that have little knowledge of TGfU and who adopt the traditional skill development approach to the teaching of games (for full results see Pearson & Webb, 2005).

The second stage of the study surveyed first year physical and health education students at an Australian university. This paper reports on the results from the second stage of the study (see Figure 1). In the second stage, 70 first year physical and health education students completed a questionnaire prior to a theory and practical session (3 hour workshop) on TGfU in May, 2005. This questionnaire consisted of two main sections – their knowledge and understanding of TGfU and their experience/exposure to TGfU.

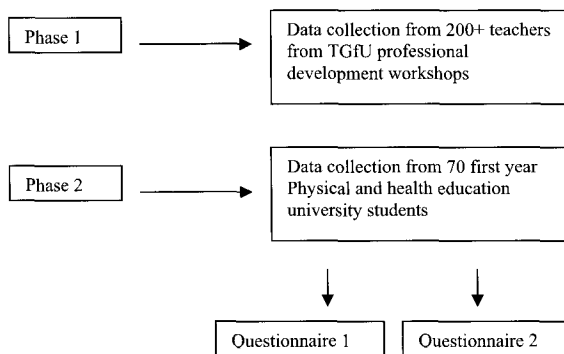


Figure 1: Phases in the study

At the conclusion of the workshop, the participants were given a second questionnaire where they were again asked similar questions as to their knowledge and understanding of TGfU and to compare their knowledge and understanding prior to and after the workshop. They were also given the opportunity to re-answer the question on their experience of TGfU now that they had a working knowledge of the approach. Both surveys were analysed using the SPSS statistical package. Descriptive statistics were generated to provide frequency distributions for responses to each of the questions.

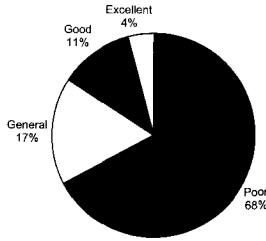
In responding to the first survey, a limited number of students were able to provide a basic definition for TGfU. Those that did respond and demonstrated some understanding of the approach to teaching games mentioned modification of games but little else (16 students). Four students went further to include aspects such as encouraging teamwork and communication. Only one student from the 70 talked about game concept, problem solving, and decision-making. No students displayed knowledge of the four categories of games using the game sense approach. Students' self-reported knowledge and understanding of TGfU is

displayed in Table 1 and represented in Figure 2. Prior experience/exposure to TGfU from the survey is shown in Table 2 and represented in Figure 3.

Knowledge	Poor	General	Good	Excellent
Responses	47	13	9	1

Table 1: Students' knowledge and understanding of TGfU (Questionnaire 1)

Figure 2

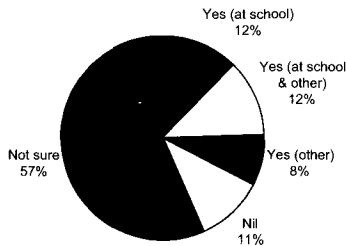


Experience	Yes (at school)	Yes (other)	Nil	Not sure
Responses	12*	12*	8	42

Table 2: Students' experience of Teaching Games for Understanding in Physical Education, sport or coaching (Questionnaire 1)

* some (6) students answered 'yes' for both these categories.

Figure 3



Other strategies to teaching games that were recalled by the students included traditional approach (warm-up, skill drills, game/modified game and cool-down), part-practice, video analysis and simply playing the game.

After this initial questionnaire, students were involved in a TGfU workshop as part of a first year subject, Movement Concepts and Practices where Physical and Health Education students are introduced to teaching strategies which can be implemented when teaching games to promote physical activity in both schools and the general community. Students participate in practical experiences which explore the fundamental principles underlying all movement and identify how these principles impact on the development of specialised skills. The workshop consisted of a theory component outlining the TGfU model, categories of games and different teaching/coaching approaches. This was followed by a practical session which involved the students in three categories of games – invasion, net/court and striking/fielding. Students rotated through each examining different teaching approaches with the focus on problem solving and decision-making. Specific activities for this session closely followed those described by Webb, Pearson and McKeen (2005).

At the conclusion of the workshop, the students were given the second questionnaire. A high percentage of students (75%) were then able to provide a meaningful definition of TGfU in relation to the concept being a problem-solving approach. All students were able to identify at least three of the four categories of games. Table 3 shows students’ self-reported knowledge and understanding of TGfU prior to and after the workshop.

Knowledge	Poor	General	Good	Excellent
Prior to workshop	50	15	3	2
After workshop	0	16	42	12

Table 3: Students’ knowledge and understanding of TGfU (Questionnaire 2)

There are some variations between the figures shown here when compared to those in Table 1 from the first questionnaire. For example, three students originally answered excellent for knowledge in Questionnaire 1 but only two in questionnaire 2 for prior knowledge. A suggested reason for this is that some students re-evaluated just how much they did know about TGfU prior to the workshop after participation in the session.

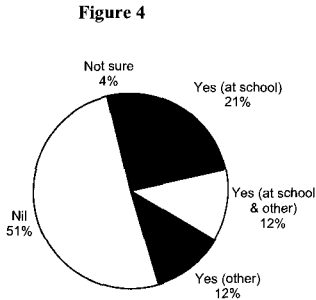
Table 4 indicates student responses when they were given the opportunity to re-answer the question on their experience of TGfU now that they had a working knowledge of the approach.

Experience	Yes (at school)	Yes (other)	Nil	Not sure
Responses	25*	18*	38	3

Table 4: Students’ experience of Teaching Games for Understanding in Physical Education, sport or coaching (Questionnaire 2)

* some (9) students answered ‘yes’ for both these categories.

Table 4 demonstrates that there were a number of students that had prior experience to the TGfU approach than originally reported in Questionnaire 1. This increase in numbers provides a more positive sign that TGfU is being utilised as an approach in schools and the sporting community. However, the fact that more than half this group have had no experience or exposure to the TGfU approach further reinforces that TGfU has not been adopted as widely throughout the state and country as one would assume after ten years. Figure 4 graphically represents the students' experience of TGfU:



Students also had the opportunity to provide comments on the TGfU approach in the second questionnaire. Just over 85% of participants responded favourably to the approach, citing such things as higher enjoyment levels, development of understanding of the game and skills required, high participation levels and inclusiveness. This concurs with previous findings (Light, 2003; McKeen, Webb & Pearson, 2005).

Conclusion

The TGfU framework has been firmly adopted by universities and a number of sporting associations around Australia over the last ten years. The students surveyed in this study had experienced physical education and sport during their primary and secondary schooling, and many had been involved as players and coaches in a wide range of sports. Consequently, one would expect that these students would have had prior exposure to TGfU. However, findings confirmed that the majority of this group of students had poor knowledge, understanding and experience of TGfU, thus questioning the extent that TGfU has filtered down to coaches and teachers of games and sport in Australia.

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 and coaches (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 and coaching accreditation courses. This combined with continuing professional development courses/workshops for practicing teachers/coaches is paramount for the opportunity of the TGfU approach to be adopted by teachers and coaches throughout Australia.

The nexus between teaching and research is paramount for academics associated with Faculties of Education who must concurrently be at the forefront of pre-service teacher training, innovation in multiple educational sectors and teacher professional development. It is, therefore, imperative that academics are active and leading members of their community of practice. Within the specialisation of physical and health education, key members of the community are: teacher educators (i.e., university-based academics); practicing teachers; and pre-service teachers (i.e., university students).

It is only very recently that this combined approach of teaching and awareness of TGfU is becoming a common theme to games education in Australia. With TGfU concepts now being adopted in primary, secondary and tertiary curricula and supported with appropriate research and professional development, the foundation for TGfU in Australia has been laid. The transition from reading and talking about TGfU is finally moving towards coaches and teachers integrating the concepts into their teaching of games.

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The Situated Nature of Learning to Teach: Teaching Games for Understanding Teacher Development in Singapore and Australia

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Introduction

Over the past decade TGfU and its growing number of variations have made an impact upon physical education teaching and policy across a range of cultural and institutional settings. These variations include the Games Concept Approach (GCA) developed in Singapore, Games Sense (den Duyn, 1997) and Play Practice (Lauder, 2001) in Australia, and the Tactical Games approach developed in the USA. While research and anecdotal evidence suggests there is still resistance to its implementation in schools (Butler 1996; Light & Tan 2004; Tan & Tan, 2001) there is increasing interest from teachers and policy makers across the globe. For example, the 2003 International Conference: Teaching Sport and Physical Education for Understanding held in Melbourne, Australia attracted over 70 teachers from Singapore alone. From its origins in the UK TGfU has been modified to suit different cultural contexts such as in the USA, Australia and Singapore. Viewing TGfU from a situated learning perspective (Kirk & Macdonald, 1998; Kirk & McPhail, 2002) highlights the importance of socio-cultural contexts for learning yet this has not been extended to include learning to teach TGfU. Clearly the development of graduating teachers is a pivotal consideration in seeing TGfU makes a difference in games teaching across the range of diverse societies and cultural settings within which it is being developed. Despite this, research on TGfU teacher development has yet to adequately address its cultural considerations. While some reference has been made to culture in research (Light, 2002; Light & Tan, 2004) this important dynamic has been largely neglected in the burgeoning literature on TGfU. With its growth in Asia in places such as Singapore and Hong Kong that are culturally distinct from Western settings such as Australia this seems to be an area of research in need of attention in the TGfU literature.

This paper draws on a collaborative study of TGfU teacher development conducted in Australia and Singapore over 2003 and 2004. It examined teachers' development of TGfU/GCA teaching in a sequence covering the last two years of teacher education and the first two years of full time teaching. This paper draws on data generated in this study to highlight the extent to which teacher development of TGfU is shaped by particular cultural and institutional contexts. It identifies how the different cultural meanings attached to sport and its different place in Australia and Singapore shaped the participants' interpretation, understanding and implementation of TGfU/GCA.

Culture and teaching for understanding approaches

While sport holds a place of unusual importance in Australia and forms an almost inescapable aspect of everyday discourse its position in Asian settings is quite different. It has a

different history and is embedded with different cultural meanings in Asian settings. It also has a different history within schools and as a form of education (for example see, Light, 2001a). Ways of teaching and learning in schools are also reasonably different between Australia and most Asian countries where teaching and learning has historically been underpinned by Confucian ideals. Despite the impact of globalization and the accompanying flow of culture, capital and people across increasingly porous borders there are important differences between education systems in Asia and Western countries such as Australia.

The Games Concept Approach (GCA) was developed in Singapore as a variation of TGfU developed to suit the needs of Singapore schools. The Singapore Ministry of Education adopted GCA as part of its Thinking Schools Learning Nation initiative in 1999 (Tan & Wong, 2000). It was developed in collaboration with leading researchers on tactical approaches to teaching games from the USA and offers a slightly more structured approach by following a pattern of playing modified games, working on the skills relevant to the game and going back to apply them in a game situation (Tan, Wright, McNeill, Fry, & Tan, 2002). The appeal for the Ministry of Education lay in the ways in which, as recent research and writing has confirmed, TGfU can enhance intellectual development through games and sport (for example, Howarth, 2000; Kirk & Macdonald, 1998; Light & Fawns, 2001).

Game Sense was developed in Australia during the mid nineteen nineties and its promotion by the Australian Sports Commission (ASC) saw it have an almost immediate impact upon coaching practice in Australia. It has since begun to influence practice in schools and on policy with games teaching in the NSW year 7-year10 Personal Development, Health and Physical Education syllabus driven by Game Sense. Thorpe worked with Australian coaches and the Australian Sports Commission to develop a game-based approach to coaching. Although very similar to TGfU it is a little less structured and was originally developed with more focus on coaching (Light, 2004). Game Sense is a general reference to game-based coaching that uses questioning to stimulate thinking. Although the ASC provides helpful resources such as a pack of game activity cards, a video and a workbook (den Duyn, 1997) the approach is open to interpretation and less structured than GCA. The terms TGfU and Game Sense tend to be used to describe the same loosely structured game-based approach in Australia.

Method

Participant selection

Five participants from Singapore and four from Australia were involved in the study. The pre-service teachers were selected from volunteers enrolled in the final two years of their primary teacher education program specialising in physical education. The early career teachers were randomly selected from those graduating students who had kept in contact with their former physical education teacher education staff through their attempts to develop their TGfU teaching.

The participants

The participants in the study either graduated from, or were studying in, a general primary teacher education program at a university in Australia and in Singapore. There were six pre service teachers in the study with four from Singapore and two from Australia. These

comprised two in each of the final two years of their program in Singapore and one from each of the final two years of their program in Australia. The early career teachers comprised one teacher in his first year of teaching in Singapore, with one in her first year of teaching and another in her second year of teaching in Australia. All names used in this paper are pseudonyms used to protect the anonymity of the participants.

At the Australian site 'Karen' and 'David' were pre-service teachers enrolled in a generalist primary teaching degree within which they had taken an optional Health and Physical Education subject. 'Kathy' and 'Monica' were early career teachers working as specialist physical education teachers in independent primary schools. At the Singapore site 'Norman' and 'Duke' were pre-service teachers in their first year of a program that prepares primary school teachers to teach physical education while 'Yanni' and 'Esther' were in their second year of the same program. 'Ishak' was a male teacher in his first year of teaching as a specialist, primary school, physical education teacher.

Data generation and analysis

The Australian study was conducted from March 2003 to November 2003 and the Singapore study was conducted from April 2003 to April 2004 with data generated through a series of three extended, in-depth interviews. The data were examined and compared to identify themes and emerging ideas over the period of the study that was then explored in subsequent interviews. This collaborative study sought to situate the participants' belief in TGfU/GCA approach and their experiences of trying to implement it within the context of their own experiences of sport and physical education and the culture within which this occurred.

Results

Sport's cultural meaning

The Australian participants tended to have had more active engagement in sport during their schooling years and valued sport more than the Singaporean participants. Kathy and Karen had a long and satisfying association with sport and were still actively involved in competitive sport at the time of the research. Although there were differences in ability and success in competitive sport all the Australian participants had generally enjoyed physical education at school and had taken part in club-based sport outside school. This influenced their decision to take the HPE option in 3rd and 4th year. In Australia most popular sport is easily accessible for children and young people and is a prominent cultural practice. Most community-based clubs aim to attract as many children and young people as possible and provide some degree of enjoyment for the less able and less competitive. While there are ongoing problems with an over-emphasis on winning in many clubs there is a general cultural assumption that clubs are open to all.

Access to sport is provided primarily within the school system in Singapore and is highly competitive. In some ways it resembles the place of sport in the USA with its stress on success and the development of elite athletes. In Australia there is a government funded sport system that provides pathways into elite level sport but is built upon the place of sport in Australia as cultural practice and an approach that encourages participation. In contrast, the idea of making "the cut off" in American sport captures the ways in which it is far more focused on developing elite athletes and encourages only the more talented. The interviews

with the Singapore participants revealed a view of sport as a competitive arena in which only the successful remained. There was also a view that academic achievement and success were far more important than success in sport. Of all the Singapore participants only Esther, had been a successful athlete. She had been successful at track and field in primary school and her early years of secondary school but the others could not recall any significant success in competitive sport at school. They had, however, played and enjoyed sport at a less competitive, recreational level both in and out of school. Some still played recreational games in their spare time at the time of the interviews. They felt they had not been successful at sport but enjoyed playing sport with little stress on winning and the social experiences that arose from it:

I never represented the school. However, I did relatively well for the inter-class competition. I represented the class in cross-country, running events, and swimming events. But I am really not a team game-type person. It's more of individual sports like running, swimming. Casually, I did take up badminton, volleyball and basketball as a co-curricular activity, but I did not progress into the more elite level. (Duke, Singapore)

In Australia Kathy and Karen had been successful in competitive sport at school and in local community-based clubs. Their parents had encouraged them and sport had formed a central practice in their lives as Karen explains here in discussing her reasons for wanting to teach physical education:

Sport was everything to (my family) all through my primary school and high school days. I enjoyed lots of different sports and that sort of thing and so my decision (to teach physical education) I think I developed on my own, but my dad's keen interest in sport influenced that whole concept of sport for me and how much I love it (Karen, Australia).

At the Australian site Kathy and Karen had also formed valuable and long-lasting friendships through sport. They enjoyed competition and believed strongly in the propensity of sport to provide valuable physical, social and affective benefits. Monica had been good at individual events such as running but said that she had not been 'good' at competitive team sports. Over years of working with TGfU in her teacher preparation program and in her first years of teaching she had, however, developed a love of team sport and a belief that, if taught using TGfU, games and sport provided excellent media for social development. She had not enjoyed physical education at school as she felt the way in which she had been taught highlighted what she couldn't do well. Kathy and Karen were successful athletes but while Davis was not he loved sport. He liked participating and being part of a team but was not fond of competition. He was an avid follower of a wide range of sports but said that he had not been skillful at sport while at school:

I was always one of those people who are half decent at being a sports person, half decent at everything... So I always enjoyed the sports side of things when I was in primary school but I wasn't as good as everyone else. (David, Australia)

At the Singapore site Yanni enjoyed playing sport at a level where he could enjoy it free of the pressure to perform and win in Singapore but did not enjoy it at very competitive levels.

He liked playing a range of sports but was not, in his opinion, particularly good at any of them. He enjoyed the social interaction that sport promoted but only at a recreational level:

I guess I spent most of the time (while at school) playing sports recreationally. It was both in school and also outside of school time. This includes the usual common sports like soccer, basketball, and badminton. Although it took up a lot of my time, I felt that I had a very good experience. I am more of an all-rounder, a 'Jack of all trades and master of none.' (Yanni, Singapore)

Apart from Esther, none of the Singaporean teachers had been involved in highly competitive sport. They seemed, at times, almost apologetic for not being successful athletes. They said that they had not felt they'd been particularly good in team games at school due to their lack of success at what Duke calls the more 'elite' level. By elite he was referring to serious, regulated competition. Of the Australian participants Kathy and Karen had been very successful athletes at school and in club sport. Indeed all the Australian participants enjoyed playing sport. They were, however, critical of the ways in which physical education had been taught when they were at school. They felt that an emphasis on performing technique 'correctly' under the scrutiny of the teacher and the other students highlighted what they could not do, embarrassed them and discouraged them from engaging in the games and sport taught.

Interpretations of TGfU/GCA in teacher education programs

In Australia Kathy saw TGfU as a means through which she could realise the teaching that she had aspired to and in a way that addressed her concerns with the ways in which physical education had excluded her less capable and confident friends at school. After her first practical class she said that, "I couldn't believe it. It was such a surprise. I was very excited; the first one was practical. It just excited me. It was like, 'That is how I want to teach PE'". She thoroughly enjoyed the games herself but seemed to be more enthused by the responses of her friends and the ways in which they were included. She liked the ways in which she was able to share enjoyable experiences of games with them and interact with them. The most appealing aspect of TGfU for the Australian participants was the inclusive nature of the modified games used. They liked the ways in which it highlighted the intellectual nature of games and sport and suggested that it could help raise the status of PE in schools. It was, however, the ways in which TGfU addressed their concerns with the exclusion of the less confident and the less able that most appealed to them.

Duke said that he had not been good at team games in school in Singapore and felt that he was not as good as his peers. He had been discouraged by too much stress on competition at school. His positive response to GCA was linked to his own experiences of sport. He felt that, had he been taught using GCA at school, he might well have developed as a far better and more competitive player. He had begun to see GCA as providing a means through which he could teach sport in a way that would enable more children to be good at team sports and develop as better games players. He saw it as providing a way of teaching games that could address his concerns with the way in which he was taught games and sport at school:

If I were to have gone through a similar [GCA] experience, like what I have now, I could have been more involved in team games. And even when I am playing team games now, frankly speaking, I am not as good as my peers. (Duke, Singapore)



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Norman also saw GCA as a teaching approach through which he could provide, not only inclusive and enjoyable experiences for children, but also highlight the intellectual dimensions of games and sport. This was a prominent theme with the Singaporean participants:

PE should not only impact the students in the physical sense because it's not all about the brawn and no brains thing. Especially when it came to GCA, it was very exciting for me. The children are challenged cognitively and creatively as well. (Norman, Singapore)

The Singapore participants were consequently attracted to the capacity of the GCA to meet the syllabus' aims of emphasizing thinking in physical education. They stressed the ways in which GCA emphasized the intellectual aspects of games and sport and its educational value:

... they really have to think and at least it doesn't make the PE lesson boring, as is always with drills. It is good that we make them understand that they need to do some thinking even in sports. (Esther, Singapore)

Discussion

The teachers' stories in this study locate their experiences of TGfU/GCA in teacher education within their life experiences of their particular cultural environments and the place of sport in them. For the Australian teachers the appeal of TGfU was linked to their affective experiences of sport and their firm belief in sport's potential to foster positive social and moral learning. While research suggests that this is a questionable assumption, it reflects a resilient and enduring belief in Australia. Despite the troubling influence of commercial, commoditised sport over the past three decades and the ways in which this challenges the idea of sport as a 'character builder' (for example see, Tomlinson & Fleming, 1995) this has been an enduring justification for the practice of sport in Australian schools (Kirk et al, 1996; Light, 2001b). The Australian participants were attracted to TGfU primarily because of the ways in which it addressed their concerns with ideals of equity, positive social learning and the importance they placed on children's enjoyment of games. While they valued its potential to develop the intellectual aspects of games and play they consistently emphasized its nature as an inclusive approach at a deeper level tied into their own experiences of sport.

The Singaporean teachers were less inclined to expressing any subjective attachment to GCA and were more detached in their descriptions of their experiences of sport. Their stories, however, also reveal the subjective and situated nature of their development as teachers. Reflecting a dominant cultural view of sport's place and practice in Singapore, they were all quick to admit that they had not been 'successful' in sport but had enjoyed participating in less competitive activities and the social experiences that emerged from them. This was not, however, their articulated justification for believing in and striving to develop GCA. Within a cultural and institutional context where academic achievement is prized far more than achievement in sport, or any concern with affective development in and through sport, they justified their commitment to GCA as a way of meeting curricula requirements by making physical education more intellectual. Although not given the same priority as the way in which GCA could promote thinking they also felt that GCA offered a means through which they could provide experiences of sport and games that they had been deprived of at school due to an over-emphasis on competition. While their stories suggest that this may have been a

more important and personally meaningful consideration for them they emphasised GCA's ability to foster thinking skills and meet the requirements of the formal syllabus. They placed more importance on identifiable learning outcomes that met the requirements of the Singapore PE syllabus and its emphasis on thinking than any of the Australian participants.

Conclusion

This study suggests that learning to teach is situated within particular social, cultural and institutional contexts. In this study the different place, meaning and practice of sport in Australia and Singapore and its place in the respective education systems affected the participants' interpretations of TGfU/GCA. Culture and institutional settings interacted to shape the ways in which the participants at both sites interpreted TGfU/GCA. This occurred both at a consciously considered level and at a deeper level shaped by a life of experiences of living in a particular culture and of experiences of sport within those cultures. That is to say that culture and attitudes to sport were embodied to operate at a powerful, non-conscious level (Bourdieu, 1984). Culture is an important factor that needs to receive more critical attention from future research on TGfU. While it can be identified through what people say it is not always so easily identified. It also needs to be considered through what people do as it operates at a number of levels to shape the individual's social action. It needs to be seen, not as a single determining factor, but more as one dynamic interacting with others such as institutional settings and individual agency. We suggest that, not only the way in which culture shaped learning, but also other aspects of the socio-cultural environments within which people live does, needs to be considered in future research on teaching and learning in TGfU. This can then make a valuable contribution toward our growing understanding of issues involved in the ongoing development and implementation of TGfU in a diverse range of settings and begin to make research on TGfU more sophisticated, dynamic and relevant.

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A Model for Professional Development of Teaching Games for Understanding for Teachers in New South Wales, Australia

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Abstract

With the advent of a new syllabus for secondary schools (years 7-10) and a quality teaching focus in New South Wales schools the Australian Council of Health, Physical Education and Recreation (ACHPER, New South Wales) determined that there was a need for the professional development of teachers in teaching games for understanding (TGfU) and relating this to the new syllabus. The result was a full day professional development workshop for teachers of which five have been held and which approximately 200 teachers have attended. This paper will address the content of the workshop and respondents comments about the workshop.

The format for the day was: a review of the literature and key definitions of TGfU and relating it to the new syllabus (45 minutes), practical sessions 1 and 2 (approximately 1.5 hours each) and programming TGfU and the new syllabus (1.5 hours). The paper will clearly outline the content for each of these sessions including the practical components. The teachers' responses indicated that it was highly beneficial.

Keywords: Professional development, TGfU approach

Introduction – Teaching Games for Understanding in Australia

Whilst 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 visited and conducted 'Game Sense' workshops around the country.

Many sporting authorities (for example, Australian Sports Commission, Australian Touch Association, Soccer Australia) and State Education bodies promoted the TGfU approach via professional development and accreditation courses. In 2005, a new Personal-Development, Health and Physical Education (PDHPE) Years 7–10 Syllabus replaced the current syllabus in NSW secondary schools. One area that has undergone major changes within the syllabus has been that of the teaching of games, with the move towards a Game Sense or Games for Understanding framework.

This change has implications for practicing teachers in relation to both the content and teaching strategies, traditionally utilised in the teaching of games. Teachers have been teaching games for many years in physical education lessons and with sporting teams. The

difference with TGfU is the approach that is used. The key to the teacher is the questioning technique and the relevance to the student of the introduction of rules and techniques. The focus is on the student and problem solving. In addition, fun is the key ingredient. TGfU is an approach to teaching that makes very effective use of active learning in that the students are learning through playing the games. The use of questioning is a powerful method of encouraging players to analyse their actions, both individually, and as a team. Questions will generally relate to a particular tactical aspect. Effective phrasing of questions can also help to guide the player to an answer, in the event that they are struggling with an activity. Age, experience and ability level of the players will affect the complexity of the questions used.

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, Thorpe & Bunker, 1996, p.28).

New syllabus outcomes (Board of Studies, 2003) and quality teaching models (DET, 2003) highlight the need for students to not only participate, but also to be cognitively involved in games. The Department for Education and Skills (2004) in England highlights the importance of inclusiveness in physical education with an emphasis on teachers having a deep knowledge and understanding of effective teaching strategies with a focus on student engagement and enjoyment. Whilst Game Sense is not the only pedagogical model for teaching games, it is most certainly one that can be used effectively to achieve the student outcomes.

Research (Light, 2002, 2003; Thomas, 1997a; Turner & Martinek, 1999; Werner et al,1996) indicates the strengths of the TGfU approach and the desirability of it as one of the major approaches to quality teaching of games. Light (2002) highlighted the effectiveness of TGfU for engagement and cognitive learning. Higher order thinking occurs from questioning and discussion about tactics and strategies and also 'through the intelligent movements of the body during games' (Light, 2002, p.23). Cognitive development through decision-making and tactical exploration is combined with skill development within modified games to provide meaningful contexts. Light (2002) suggests that it is difficult for some physical educators to address cognition in games. TGfU is one pedagogical approach that may assist teachers and coaches to address this issue.

Light (2003) examined the response for pedagogical approach in an Australian University to Bachelor of Education students studying primary teaching. Student evaluations were generally positive indicating an increase in enjoyment, understanding and cognitive engagement in the games. In comparing games sense to skill-based teaching, Werner et al, (1996) state that... 'while the teacher may be convinced that skill-based lessons are having a positive effect in that some immediate skill improvement is made, the social and skill related interactions might over time convince the youngsters of their lack of ability' (p.32). Thorpe and Bunker (1986, cited in Allison & Thorpe, 1997) argued that a skill-based approach to teaching less physically able students is likely to: '...result in a sense of failure, a lack of enjoyment, poor self-concept and subsequently inhibition of long term participation' (p.11). In contrast to this, the students who exhibited low physical and technical ability in the Game Sense lessons consistently reported significantly higher and more positive scores for these same factors. 'It appears that a skill-based approach serves only to highlight, confirm and reinforce – often publicly – the pupils lack of physical ability' (Allison & Thorpe, 1997,

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 and most importantly, having fun. 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).

Following TGfU workshops where participants were asked to identify what they perceived as the strengths of TGfU, a number of themes emerge. TGfU 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

(Pearson and Webb, 2005)

Professional development of teachers in New South Wales on TGfU and relating it to a new Personal Development, Health and Physical Education (PDHPE) Years 7-10 Syllabus (Board of Studies 2003)

In 2004 the Australian Council of Health, Physical Education and Recreation (ACHPER, NSW) ran all day workshops throughout New South Wales with the main purpose of providing teachers an opportunity to update on TGfU and relating it to the new Personal Development, Health and Physical Education (PDHPE) Years 7-10 Syllabus (Board of Studies, 2003). The format for the workshop was as follows:

- TGfU overview (45 minutes)
- Practical session 1 (1.5 hours)
- Practical session 2 (1.5 hours)
- Programming implications (1.5 hours)

TGfU overview (45 minutes)

This session introduced the concept by giving definitions and also discussing related terminology such as play practice, games concept approach, game centred and play for life. The benefits of these approaches and the link to technique based approach were also discussed. Following this activity asking the participants to list all the elements of an effective player in a sport, eg basketball so that the participants could understand the relationships between technique, game sense, rules, psychological aspects etc. This was followed by another activity where the participants were asked to apply the Bunker and Thorpe (1982) model to a sport or activity. Categories of games; invasion, net/court, striking/fielding and target were discussed and the reasons for having these categories. The three different teaching/coaching approaches were outlined-the full sided approach where

numbers mirror close to the game itself, the small sided approach eg. 1 versus 1, 2 versus 1 etc and the games for outcomes approach where outcomes are set and a game designed to meet these outcomes. This session concluded by relating TGfU to the New South Wales Personal Development, Health and Physical Education Years 7-10 Syllabus. (New South Wales school system goes from Kindergarten to year 6 which is Primary school and year 7 to year 12 which is High school). The NSW PDHPE syllabus consists of Stage 4 (Years 7 and 8) and Stage 5 (Years 9 and 10). There are 4 strands: self and relationships, individual and community health, movement skill and performance, lifelong physical activity. Examples were then given from the Movement Skill and Performance strand. eg. Stage 4: Students learn to: demonstrate movement skills through a range of experiences including: games from categories such as striking/fielding, invasion and net/wall.

Practical sessions (1.5 hours)

The following is an example of one of the categories i.e. invasion games. The same format was used for the other categories.

Let's now use the sport of Touch (Football) as an example for invasion games. Touch is a sport where the object of the game is to score more touchdowns than your opponents by passing the ball backwards. Each team has 6 players on a 50 by 70 metre field. Modified games are available for junior players. There are 3 scenarios that are used.

The full sided approach

This involves starting with a minimum of 4 a side and a maximum of 7 playing in a minimum of a 20 metre square grid. The object is to score touchdowns i.e. placing the ball on the ground behind the score line. We start with minimum rules and gradually build up teaching techniques as they are needed.

Progression 1: start with players in their own half of the grid. Players may run with the ball, pass the ball forwards or backwards. The only rules are that if touched you must stop and pass the ball within 3 seconds. No kicking and if the ball hits the ground it is a change of possession.

Progression 2: add the 6 touch rule and a change of possession. Teach the skill effecting a touch.

Progression 3: add the rule of only passing backwards and offside. Teach the basic catch and pass.

It is important to constantly challenge the participants through questioning. Questions to ask include: what are our options when we have the ball? Eg., Running into space, passing into space, etc. What are we trying to do in defence? Eg., mark a player etc.

The small sided approach

This is where we begin with a 1 on 1 situation and gradually build up. Launder and Piltz (1992) developed an approach to teaching Touch. Under a modified version of this model the types of activities demonstrated are: 1 versus 1 in a 10 by 10 metre grid. The object is for the ball carrier to make metres before being touched. Mark the spot where touched and change over. The new runner tries to get further. Questions include: what are the best ways to beat the defender? What can the defender do?

This is then followed by 2 versus 1, 3 versus 1, 3 versus 2 etc. Similar questions would be asked

The games for outcomes approach

Here you have a specific outcome. Eg. line defence. You then design a game to meet this outcome.

Finally at the end of the session the teachers formed groups of 6-8 and were then allocated a task. These tasks were: design a full sided, small sided and games for outcomes for a particular sport or activity with appropriate questions for each activity. Each group then demonstrated their work.

Programming implications (1.5 hours)

The last session of the day involved utilising TGFU information and applying it to the NSW Personal Development, Health and Physical Education (PDHPE) Years 7-10 Syllabus (Board of Studies 2003). This included addressing the following: overview of the syllabus, what are the main messages of strands 2 and 4? What does this mean for programming and teaching? Developing a unit of work including where are my students now? Where are my students going to? Examples of common themes eg invading your space. How will my students get there? What makes a quality program?

Teachers' responses to the professional development day

Overall, the teachers responded favourably to the workshop. The following are the responses recorded from 70 teachers:

Score average: (score from 1-10 where 1 is poor through to 10 which is excellent) was 9.22 out of 10.

Table 1 describes the most worthwhile aspects of the workshop as indicated by participants (three most frequent responses).

Aspect of workshop	Number of responses
Learning the questioning technique	12
Developing practical ideas	11
Learning a different style of teaching	6

Table 1: Worthwhile aspects of the workshop

Table 2 shows the recommendations for improvement of the workshop as indicated by participants (three most frequent responses).

Recommendations	Number of responses
More time needed for the workshop	18
Using a better facility and having more space	8
Introduce more novel activities	6

Table 2: Recommendations for improvement of the workshop

Overall the teachers found the workshop to be beneficial rating it 9.22 out of 10. Interestingly the most worthwhile aspect was learning the questioning technique in the TGfU approach followed by them developing practical ideas for their teaching. More time was the major recommendation for improvement with some respondents suggesting an extra day although this recommendation could have financial implications with the teacher taking another day away from the school.

Conclusion

Given that TGfU is still new for many current Physical and Health Education teachers continuing professional development courses/workshops are paramount for the opportunity of the TGfU approach to be adopted by teachers and coaches throughout Australia. The model illustrated above allows teachers new to the approach as well as teachers familiar with it to further update and apply it to the new syllabus in New South Wales.

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Learning to Teach Games for Understanding: Experiences from Four Pre-service PE teachers in the Hong Kong Institute of Education

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Abstract

This paper reports a qualitative study of how 4 skilled pre-service physical education teachers, who were attending the final year of a four-year full-time Bachelor of Education Degree programme, perceived their learning-to-teach experiences of TGfU. Attached to Lawson's occupational socialisation and interpretive inquiry perspective, data were collected through interviewing and writing of critical incidents. Although all participants perceived TGfU positively as a viable approach of PE instruction contributing to pupils' cognitive development and providing fun, they only regarded their socialization of TGfU experience as pedagogical knowledge in the form of teaching procedures which could map well with the current education reform in Hong Kong. Thus, half of them showed hesitation of adopting the model in their future teaching. They were troubled by the anticipated practicality problems and the impacts of their anticipatory socialization. The inadequacy of "tactical knowledge" of individual games threw them into confusion. They could not be sure whether the games education should be oriented towards "cognitive" or "skill" and whether it should focus on "technical" or "thinking" dimensions. They felt doubtful about whether the learning sequence of games should be from "tactic-to-technique" or from "technique-to-tactic". To such an extent, pre-service PE teachers should be acquainted with in-depth theoretical understanding of TGfU and equipped with tactical skills concerning the games they teach.

Keywords: TGfU approach, Physical Education teacher education, Socialization

School Physical Education in Hong Kong

The planning and implementation of the physical education (PE) curriculum in Hong Kong has been improving in the past decade following the government mandate of having qualified PE teachers to teach the subject in schools since 1990. It has also been identified as one of the eight key learning areas acknowledging it as fundamental and major knowledge domain in schools in the current education reform (Education Commission, 1999; 2002). Accordingly, all schools are recommended to allot 5 to 8 percent of the curriculum time for the subject.

However, dominated by concepts of "balanced curriculum" and "education through the physical" orientation, most local PE teachers stick closely to "the multi-activity" mode of curriculum planning. They commonly select a wide range of (at least 8) different physical activities and arrange them in small teaching units aiming at achieving a variety of physical,

moral, social, intellectual and aesthetic education intentions (Curriculum Development Committee, 1975; 1980; Curriculum Development Council, 1988; 2002). Moreover, for ensuring managerial efficiency, the “direct teaching” approach has been adopted by most PE teachers. As the result, most pre-service PE teachers enter the teacher education (TE) programmes with experience of these two curricular and pedagogical models only. As the result, many scholars in the field have advocated the reshaping of our PE curriculum by incorporating more variety of curricular and pedagogical models for PE in schools (Metzler, 2005, Butler, 1997).

On the other hand, local educational reform efforts launched in Hong Kong have addressed new goals of education in terms of “learning to learn” and “all round development” and the role of teachers as being facilitators rather than knowledge providers since 1998 (Education Commission, 1999; 2002). Teachers have been identified as the key players in the reform movement and urged to improve the quality of teaching. They must be prepared to be reflective and innovative to possess new knowledge in their subject area for facilitating more student-centred learning. Accordingly, they were asked to incorporate new methods of instruction and to introduce new approaches for promoting students’ learning towards the educational goals. TGfU has been one of the viable approaches advocated by the Hong Kong Institute of Education.

Teaching Games for Understanding

Bunker and Thorpe (1982) were the pioneers of “teaching games for understanding” (TGfU) in the late 1970s and early 1980s. Since then, TGfU has been developed as a curriculum model in contrast with the traditional technical-based game teaching. It places emphasis of pupils’ learning in games education on the tactical understanding in terms of game appreciation, tactical awareness, decision-making and skill execution in “games”. It stresses the adoption of indirect, pupil centered, inquiry- and context-based approaches for promoting pupils’ learning through games as suggested by Griffin et al (1997).

TGfU has been commonly regarded as one of the innovative curriculum models in physical education (PE) with pre-assumed educational intentions and practices that “tie together theory, planning, classroom management, teaching learning processes, and assessment” (Metzler, 2005, p.xxiv). It has been identified as being attached to frameworks of learning theories namely cognitive, constructivist and situated learning for educating pupils through games as suggested by Butler (1997), Light and Fawn (2003), Grehaigne and Godbout (1995), Kirk & Macdonald (1998) and Kirk & McPhail (2002).

Butler et al (1997) suggested that the basic assumption of TGfU was “Students learn best if they understand what to do before they understand how to do it.” (p.215). It is predominantly cognitive focus. Light & Fawns (2003) also commented that TGfU could promote successfully pupils’ thinking and cognition. This signified a shift in the epistemology of teaching and learning in PE. This cognitive process which involves “thinking in action”, suggests that TGfU is more capable of providing pupils with opportunities to think critically and solve tactical problems during their learning process in games.

TGfU has also been articulated with the constructivist learning perspective. It is believed that learning should be pupil-centered and pupils are active agents who have the capability of



making sense of their learning process by synthesizing new experiences and context, and applying information to new situation (Dyson et al 2004; Butler, 1997).

Similar to social constructivist learning, Kirk & Macdonald (1998) and Kirk & McPhail (2002) suggested that TGfU originated from the situated learning perspective. According to Kirk & McPhail (2002), learning in TGfU was an active process of engagement with socially organized forms of subject matter. Through perceptual and decision-making processes and the execution of appropriate movement responses, pupils' active learning with TGfU was embedded within the constituted physical, socio-cultural, and institutional contexts. On the whole, TGfU has been gradually developed and accepted as a viable curriculum model by PE teachers worldwide.

Development of TGfU in Hong Kong

In 1996, Thorpe, one of the pioneers of promoting TGfU, was invited to introduce the concept through workshops for PE teachers in Hong Kong. Since then, this innovative idea was incorporated in the PE teacher education (TE) in the Hong Kong Institute of Education for pre-service PE teachers (PSTs). Within the PETE curriculum, TGfU is included as the content of curricular and pedagogical modules. PSTs are required to plan lessons and put on trial TGfU in the form of micro-teaching. The concept is then modelled and discussed in professional activity units with reference to the current education reform. PSTs are also required to practise the model in their 2 field experiences (FEs) scheduled at the end of their 3rd and 4th year study respectively.

After introducing TGfU for years, it seems to be an appropriate time to learn more about how PSTs socialize with their TGfU experiences. Besides, empirical research concerning how PSTs actually engaged and perceived their professional learning in TGfU in the context of Hong Kong has been limited. Accordingly, a study was launch for inquiring how 4 PSTs experienced their learning-to-teach TGfU.

Methodology

The focus of this study is to understand how 4 PSTs socialized with their TGfU experience. They were highly skilled students at their final year of the four-year full-time Bachelor of Education Degree programme. During the meaning making process, Lawson's (1983) occupational socialization was adopted as conceptual framework within which PSTs were regarded as active agents in determining their socialisation process. It was acknowledged that their process of learning-to-teach TGfU was perceived as being affected by cultural and societal influences namely the experiences of their anticipatory socialization and social institution of PE, teacher training institutions and schools.

Understanding PSTs' socializing experiences of TGfU was primarily qualitative and the interpretive inquiry was adopted to comprehend how such socialization was experienced in holistic and naturalistic manners (Patton, 2002). The central thought of the interpretive inquiry is "hermeneutics" stressing on the importance of understanding and interpretation. It involves the understanding how PST gave meanings to their socialization processes with the awareness of the context (Bleicher, 1982).

The participants

4 final year PSTs (2 males and 2 females with the pseudonyms Fai, Tang, Lam and Chu respectively) with the ages between 23 and 24 were purposefully selected for the study. They were athletic type PSTs and represented the Institute in a number of sports competitions. Fai was a young man who was enthusiastic in sports. He was a member of the Institute Soccer team. Tang was a sporty young man and represented the Institute in Soccer and Handball respectively. Chu was a female PST with an outgoing character. She represented the Institute in playing Basketball and Netball. Lam was a female student sports leader in the Institute and was well-known for her sports fighting spirit. She was a member of the Cross-Country, Rugby, Soccer, Athletics and Handball teams. It was assumed that these PSTs had rich content knowledge in the forms of tactical and technical understanding of games that they had extensive involvement. It should be noted that they were fresh secondary school graduates and had no prior experience in TGfU before joining the PETE.

Data were collected through semi-structured interviews and writing of critical incidents immediately after the 2nd FE. Each interview lasted for about 30 to 45 minutes and the time was thought to be versatile and flexible. The duration was also regarded suitable for collecting all necessary information as well as maintaining PSTs' concentration.

Critical incident technique initiated by Flanagan (1954) was employed to detect particular issues that PSTs attended to as significant incidents concerning their socialization with TGfU experience. Through adopting the technique, it was intended to stimulate them to identify the “why”, “how”, and “what” of their significant TGfU incidents. These stimulating questions helped to identify possible socialising events and experiences. Samples of the interview and critical incident are attached in Appendix 1 and 2 for reference.

Data analysis

Through inductive analysis, all data were transcribed, organised and coded. Emerging and recurring themes concerning PSTs' professional learning experiences in TGfU were identified for content analysis and compared constantly. During the process, phenomena such as their professional learning, difficulties encountered and perceived values of TGfU were interpreted in a wider context of their socialization. They were then interpolated with the data and cross-case analysis in the process of “saturate”, “abstract”, “conceptualise” and “test” with a spiral and back and forth manner as recommended by Strauss and Corbin (1998).

“Trustworthiness” and “authenticity” of the data suggested by Guba (1990) were employed to establish credibility and legitimacy of this research. During negotiating access, their consent was obtained. They were explained with the details of the study, their rights and obligations. Accordingly, possible methodological means were adopted such as translating interview and critical incident scripts undertaken by a PE professional and verified by the PSTs themselves. Direct quotations with the PSTs' own wordings were adopted to ensure the depth and authenticity of the data. Data of the critical incidents were used for triangulating the accounts made by the PSTs during the interview to ensure that the transcripts were describing their responses authentically (Denzin, 1989).

Discussion of the findings

General characteristics of the participants

All 4 PSTs first came across the concepts and practices of TGfU in their PETE. 2 of them (Fai and Chu) adopted TGfU for teaching Basketball and Handball in their 1st FE. All of them used the model in teaching Soccer, Basketball, Handball and Volleyball units in the 2nd FE. Through constant comparison of the data, four emerging themes were identified as follows:

Theme 1: Values of TGfU

Individual participants perceived TGfU positively with different articulations. They regarded it as an alternative approach of game instruction. In the interview, Lam commented, “TGfU was different from the way that I was taught in my secondary school PE. It might be a better choice of teaching apart from the direct approach and skill instruction.” However, for her, TGfU was misconceived as similar to the technique based teaching. She said, “Frankly speaking, it seems that there is not much difference between TGfU and technique based teaching except the lengthening time on game application.” She admitted that “Pupils appeared to enjoy it much because they had more time to play games.” Similarly, Tang thought that TGfU was another teaching method but with different procedures. In the interview, he said, “We have to start the lesson with games and schedule more time for skill application phase.” He also recognised that, “Normally, pupils would be more motivated when they had more time to play in games.” Both Lam and Tang seemed to have a superficial understanding of TGfU in the form of teaching procedure rather than knowing it from theoretical framework and its respective educational intentions.

On the other hand, Chu commended favourably on TGfU. Her remarks related more to the learning aspect. In her recall of critical incident, she noted, “TGfU is a good teaching method. It involves pupils in games most of the time, within which they can learn how to play smartly as well as acquire fun.” Fai on the other hand, seemed to have a better understanding of the model. In the interview, he said,

It is wonderful! Everyone seemed to be involved in the games voluntarily. They enjoyed the game and played whole-heartedly. Moreover, they learnt tactical concepts through playing and started to think in the game. It is a significant success in motivating pupils to learn through games activities.”

When being asked about the values of TGfU, Lam thought that the questions and answers in-built in her TGfU lessons had promoted the cognitive development of the pupils. Tang also believed that pupils would be benefited in their cognitive development when they were provided chances to think. Fai experienced that his pupils’ cognitive enrichment was cultivated as he has structured them with stimulating questions. He also detected his pupils’ active involvement in thinking during the game lessons. Chu pinpointed in her recall of the critical incident that she was amazed with the cognitive deliberation demonstrated by her pupils during the group discussion. She understood that it was the result of meaningful learning activities. She wrote:



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I was very surprised by the girls' conversation on the concept of support with width in the group discussion. Some of them could recall in detail the game situation, in particular, their right and wrong positions and appropriate movements of support. I finally understand that if we want our pupils to think, we have to give them well-structured and stimulating questions....(Chu)

Fai and Chu had a detailed description on how TGfU matched well with emphases concerning "student centered" and "learning to learn" conceptions advocated in the current education reform in Hong Kong (Education Commission, 1999; 2000). They acknowledged that TGfU was one of the approaches in meeting the goals of current reform. In the critical incident report, Fai wrote that TGfU helped to promote pupils' generic skills,

In TGfU, pupils were provided with a lot of opportunities for group discussion concerning the tactical problems in games. It can promote pupils' skills of communication, collaboration, problem solving and critical thinking. It matches well with the learning-how-to-learn skills advocated in the current education reform....(Fai)

Chu acknowledged that TGfU could cultivate her pupils' critical thinking which was identified as one of the important learning-to-learn skills in the current education reform in Hong Kong. In the interview, she said, "Pupils enjoyed the discussion in-built in the TGfU. I noticed that some of them were really critical during the discussion. They seemed to understand the defensive and offensive concepts such as the 'give and go' introduced in the Basketball games." In comparison, Lam and Tang related relatively little concerning current education reform. They just mentioned that they had to follow the guidelines of the education reform.

Theme 2: Type of professional learning

All PSTs perceived their TGfU experience as a kind of pedagogical knowledge in the form of teaching procedures. They expressed that the TGfU could be well fitted in their game lessons. It illustrated the particular type of professional learning and knowledge structure in their socialization process. Fai regarded it as another mode of game teaching which started with modified games and discussion. Throughout the instruction process, an indirect approach was used for promoting pupils' understanding of the games concept. Tang favoured the discussion, and Q and A sections. Chu recalled that TGfU was conducted in the form of modified games within which pupils' game concepts were cultivated. Lam, on the other hand, expressed that TGfU involved pupils in games all the time.

Perhaps, they were novice teachers and experienced varying levels of "cognitive dissonance" as suggested by Howarth and Walkuski (2003) during their socialization of TGfU experiences. They learnt with their own knowledge structure in perceiving their learning of an alternative conception of how to teach games. On the whole, PETE appeared to be quite effective in acquainting this group of PSTs with the procedures and key modes of learning activities while adopting TGfU. However, their perception of professional learning as such illustrated that they did not understand the model fully.



Theme 3- Hesitations of using TGfU in their future teaching

When being asked whether they would adopt the model in their future PE teaching, Lam and Tang showed some hesitations. In the interview, Tang doubted about the practice by saying that “Mm...It’s fifty fifty. TGfU is only one of the teaching approaches.” Their main concerns related to practical teaching considerations such as the large class size, the difficulty in managing the class in games situation and inadequate space for games. They feared that TGfU would not be supported by PE teachers. Moreover, they voiced that they did not have such experience in their secondary school days. Lam was also puzzled by saying that,

I’m not sure. There was no such approach in our secondary school days. Our secondary school PE teachers usually used the direct approach and we still learnt a lot and enjoyed our PE lessons very much. Whether TGfU can be successfully promoted depends much on the availability of space. It’s not easy to have all the pupils involved in games at all time. Besides, I can’t imagine how the school head will perceive those management problems that might result from the games participation... After all, it’s dangerous to stick closely and solely to TGfU when someone like me who is not very familiar with the approach. (Lam)

Liam’s case illustrated the negative impact of her biographical experience. The experience of having no TGfU in her school days resulted in her reluctance to adopt TGfU in their future teaching. PSTs’ reluctance to adopt TGfU may also be due to the domination of the technical approach as suggested by Brooker et al (2000); Butler (1996) and Placek and Griffin (2001). They commented that the ways of teaching sports and games curricula remained firmly grounded in the teaching of isolated skills.

Theme 4 Dilemma in understanding the Conceptual Procedural knowledge of TGfU

Although all of them had taken part in inter-university sports competitions, it is surprising to see that they had trouble with their inadequacy of strategic knowledge about the game concepts especially the defending and offending ones. Also, they experienced difficulties in digesting and transforming the knowledge to pedagogical content knowledge (Shulman 1987) in the forms of teaching themes and activities. It is commonly accepted that one of the pre-requisites of successfully implementation of TGfU is teachers themselves. Many PE teachers including PSTs in this study do not have sufficient understanding of the concepts of team tactics and strategies since the tactic and tactical awareness of different games like basketball, football, volleyball and handball were highly specialized (Wilson, 2002). Tang and Lam perceived themselves as not being competent when conveying offensive and defensive content in games which required deep understanding of the tactical knowledge. Moreover, they had difficulties in transforming content knowledge (tactical knowledge) to pedagogical content knowledge ie. planning progressive and purposeful instructional activities. In recalling her critical incident, Lam wrote:

It’s rather difficult to teach pupils those offensive concepts in Soccer. I, myself, do not understand these concepts fully and it is difficult for me to select, sequence and simplify these concepts and apply them to my teaching. (Lam)

Tang said that “TGfU was different when it concerned the understanding of the game concepts of playing Basketball. Sometimes, I did not know how to sequence the acquiring of concepts in the unit and lesson planning.” Fai also expressed that “I admitted that it was difficult to understand and teach tactical awareness of Handball by using TGfU.”

The participants perceived inadequacy in the content knowledge regardless of their high involvement in sports training. Perhaps, the games that they taught in their FE did not fall into their expertise. They were found lacking knowledge about how to teach tactics. Perhaps, teachers including PSTs in this study were not convinced that teaching tactics was an important part of PE as indicated by Brooker et al (2000); Butler (1996) and Placek and Griffin (2001).

Moreover, the participants seemed to have dualistic thinking about the cognition and skill performance. They were confused when being tempted between the technique-to-cognition and cognition-to-technique approach. They also experienced dualistic confusion between the techniques and tactics in game performance namely whether it should be the “tactical awareness-to-technique” and “technique-to-tactical awareness” progression in games learning and teaching. In the interview, Fai was puzzled by saying that, “sometimes, I was confused with whether we should teach pupils techniques or provide them with opportunities to apply them in games first.” Chu also had doubt on the teaching sequence. She said, “In the first Basketball lesson, I saw my girls running around chasing the ball in the game. I had the feeling that they should be introduced and mastered the techniques first.” Lam doubted by saying that,

I was frustrated when I saw the girls chasing each other around. Some of them could not even get hold of the basketball. They just did not have the techniques to play in games. Moreover, I was in doubt of whether we should commit a lot of time for discussion or questioning pupils’ game concepts. Sometimes, they did seem to understand what I wanted them to know. (Lam)

Tang argued that “I think pupils should start off by mastering the techniques first before involving in any games. It seemed to be the logical sequence of games learning”. From the PSTs’ articulations above, the PETE appears to be less capable of inculcating PSTs’ belief in the underlying values of TGfU. PSTs in this study seemed to stick rigidly on the procedures of TGfU without making appropriate adaptations to their teaching.

Implications and conclusion

PSTs in this study had different socialization experiences concerning perceptions, understanding, and knowledge acquisition structure while adopting TGfU in their PE teaching. Chu appeared to socialize with TGfU experience positively while Lam experienced a negative socialization and showed reluctance to adopt it in her future teaching. Fai acknowledged the values of TGfU for promoting pupils’ learning through games while Tang was still puzzled on the implementation of it in schools. They demonstrated an active role of managing their learning-to-teach experiences of TGfU in PETE.



All of them acknowledged the values of TGfU in providing pupils with more fun and contributing to their cognitive development. It mapped well with conceptions advocated in the current education reform in Hong Kong. It was “student-centred” and capable of cultivating pupils’ generic skills for learning how to learn. The findings illustrated the effectiveness of the PETE in inculcating PSTs to believe that TGfU was a viable alternative curriculum model for PE.

All PSTs in this study, perceived their inadequacy of the tactical knowledge indicating that they regarded the content knowledge as important and fundamental to their PE teaching. It was suggested that they should be acquainted with in-depth content knowledge of games, in particular, “tactical knowledge” and the “pedagogical content knowledge” for teaching. It echoed the suggestions made by McNeill et al (2004) and Hastie and Curtner Smith (2006) that PSTs should have to possess superior content and pedagogical content knowledge in order to successfully implement games education through TGfU. They needed to improve their content knowledge and transform it into pedagogical content knowledge involving planning and sequencing of teaching activities. The improvement of PSTs’ content knowledge was important regardless whether the teaching of game should be “skills-to-technique” or “technique-to-skills” progression and whether the games should be tactical or technique oriented.

Some of the PSTs (Lam and Tang) showed hesitation to adopt TGfU in their future PE teaching because of the negative impacts resulted from their anticipatory socialization as evidenced by having no TGfU experience in secondary school PE. They also anticipated the negative impact of organizational socialization as revealed in the current practices of school PE teachers and principals who might not like the approach. Their pre-training experience and anticipated organization socialization may be so persistent that teacher educators have to be aware and begin to design ways to explore and deal with such powerful preconceptions. To encounter these socialising impacts, opportunities for recognizing the influence of their histories should be initiated at the very beginning of PETE. They should be helped to assess their teacher perspectives and the programmatic expectations of TGfU through critical reflections and discussion. Moreover, seminars and workshops to be held for familiarizing serving PE teachers and school heads concerning the concepts and values of TGfU are also necessary.

On the other hand, PSTs perceived their socialization of TGfU experience in the form of pedagogical knowledge. For them, TGfU was governed by a set of rigid teaching procedures. PSTs’ knowledge acquisition, which related to learning to teach TGfU warrant the attention of teacher educators and caused confusion. They experienced the dilemma among dualistic conceptions of whether game education should be “cognition” and “skill performance” oriented, and its teaching procedure should be “tactical awareness-to-techniques” or “techniques-to-tactical awareness”. The findings illustrated the relatively ineffectiveness of PETE to instill PSTs with an in-depth understanding of TGfU. A review of the current curriculum design and delivery of PETE for acquainting PSTs with knowledge and skills for adopting TGfU in teaching games appeared to be necessary. Thus a more in-depth inquiry of TGfU including its theoretical and philosophical underpinnings in relation to the nature of learning and theoretical meanings of TGfU should be pursued by PSTs. The programme design of PETE should include the elements of cultivating PSTs with critical reflexivity in assessing the causes, actions and consequences concerning problems and strategies of TGfU. PSTs should be aware of such potential dissonances. They should also be prepared

adequately with a variety of coping strategies. Besides, the vision and mission of teaching games through TGfU should be explained, conveyed and debated in order to facilitate and enhance their professional learning and teaching. Moreover, as teacher educators, we have to aware how PSTs construct their knowledge of learning-to-teach TGfU. We have to find ways to influence them with a conceptual shift in how they can effectively make use for TGfU of promoting pupils' learning through games. After all, there will not be incentive for PSTs to change unless there is a paradigm shift in PSTs' educational values and beliefs about teaching games.

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Appendix 1 Interviewing questions

- How or at what circumstances did you know the term and concept of TGfU?
- Which modules did you come across TGfU?
- What had you learnt from that modules concerning TGfU?
- What were the values of TGfU?
- Are there any relationship between TGfU and current educational reform? What are they?
- Had you tried TGfU during your previous FE?
- If Yes, can you recall some of these experiences such as content, teaching, learning outcomes of students...?
- What were the difficulties of applying TGfU in PE teaching?
- Do the other pre-service PE teachers perceive the TGfU in similar ways?
- How do they perceive the TGfU after the 2nd FE?
- Will you try TGfU in the future teaching? Why?

Appendix 2: Critical incidents

- What was your most satisfying/ happy/ successful experience in TGfU?
- _____
What was your most dissatisfactory / unhappy / unsuccessful experience in TGfU?
- _____
What had TGfU contributed most to our students' learning?
- _____
What was the most difficult thing in adopting TGfU in teaching PE?



Linking Teaching Games for Understanding and Quality Teaching in NSW Secondary Schools

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Abstract

*A discussion paper entitled *Quality teaching (QT) in NSW public schools* (Department of Education and Training, 2003) has been developed to improve teaching practice and hence student learning outcomes. The model of pedagogy outlined in this document focuses on the three dimensions of intellectual quality, quality learning environment and significance.*

Elements associated with these dimensions such as deep understanding, higher order thinking, student direction and inclusivity can be difficult for teachers to implement into practical lessons. When effectively implemented Teaching Games for Understanding (TGfU) is one strategy that allows teachers to address these elements when teaching games in physical education and sport. TGfU places an emphasis on the play, where tactical and strategic problems are posed in a modified game environment, ultimately drawing upon students to make decisions.

Research indicates the strengths of TGfU and the desirability of it as one of the major approaches to enhance quality teaching of games. A survey was conducted with 50 Personal Development, Health and Physical Education (PDHPE) teachers that participated in workshops that linked TGfU and quality teaching. From the data collected, a matrix showing the relationship between TGfU and quality teaching was developed. Whilst TGfU is not the only pedagogical model for teaching games, it is most certainly one that can be used effectively to achieve student outcomes by addressing the intellectual quality, quality learning environment and significance dimensions of the Quality Teaching model.

Keywords: Quality teaching, Quality learning, TGfU approach

Introduction to TGfU

Research and observation of games teaching in physical education typically shows a series of highly structured lessons based heavily on the teaching of technique (Ho, 2003; Light, 2003a; Turner, 1996; Pearson & Webb, 2005). This format generally divides the lesson into an introductory activity, a skill phase and finishes with a game. This traditional model has consistently revealed a large percentage of children achieving little or no success due to the emphasis on performance, skillful players who possess inflexible techniques and poor decision-making capabilities, players who are dependent on the teacher/coach to make their

decisions, and a majority of children who leave school knowing little about games (Werner, Thorpe & Bunker, 1996). The transition from technique learning to game play is difficult for children without an understanding of how and when to use their skills (Turner, 1996).

Teaching games for understanding (TGfU) provides students with a more substantive base and clearer frame of reference for learning about critical elements of game play. The TGfU approach to teaching games places the focus of a lesson on the student in a game situation where cognitive skills such as ‘tactics, decision-making and problem solving are critical... with isolated technique development utilised only when the student recognises the need for it’ (Webb & Thompson, 1998, p.1). Other terminology and variations of TGfU (Bunker & Thorpe, 1982) include: ‘Play Practice’ (Lauder, 2001), the ‘Games Concept Approach’ (Wright, Fry, McNeill, Tan, Tan & Schemp, 2001, cited in Light, 2003a) and more recently, ‘Playing for life’ (ASC, 2005). Modifying and adapting games is also an important part of using the Game Sense approach. The concept of ‘modification for exaggeration’ is used to emphasise particular tactical aspects.

Using the game of hockey as an example, it is important that the student first has an understanding of the game, that the ball must be moved down field, with the intention of scoring a goal. An appreciation of the game might include a grasp of the concept of moving down the field individually or as a team whilst thwarting the opponent’s attempts to take control. One of many examples of tactics is passing to players on the wing to run the ball up field. Whether to have a shot at goals, or whether to pass to a player in a better position is where the skill of decision-making is required. Finally skill execution and performance is required to perform a flick shot to score in the top corner of the goals.

TGfU is an approach to teaching that makes very effective use of active learning in that the students are learning through playing the games. In addition to this, ‘questioning is a powerful method of encouraging players to analyse their actions, both individually, and as a team’ (Goodman, 2001 p.7). Questions will generally relate to a particular tactical aspect. Effective phrasing of questions can also help to guide the player to an answer, in the event that they are struggling with an activity. Age, experience and ability level of the players will affect the complexity of the questions used (Goodman, 2001).

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 and most importantly, having fun. 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). She also gives an account of workshops where participants were asked to identify what they perceived as the strengths of TGfU, with the following five major themes emerging.

TGfU was found to:

- Encourage a holistic approach to the teaching of games
- Promote enjoyment for participants
- Promote player centred learning
- Cater for varying abilities
- Foster efficiency in aspects of implementation

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). Key outcomes of successful physical education are students that have the ability to make successful decisions on the field and have an awareness of both technical and tactical aspects of the game (Martin & Gaskin, 2004).

Quality Teaching model for public schools

A discussion paper *Quality teaching in NSW public schools* (NSW Department of Education and Training, 2003) proposes a model of pedagogy that contains three dimensions for quality teaching and learning. The model was developed by Dr James Ladwig and Professor Jennifer Gore from the University of Newcastle in consultation with and on behalf of the NSW DET. It is based on current research of authentic pedagogy (Newmann et al, 1996) and productive pedagogies (QSRLS, 2001). The three dimensions of the model are:

Intellectual quality refers to pedagogy focused on producing deep understanding of important, substantive concepts, skills and ideas. Such pedagogy treats knowledge as something that requires active construction and requires students to engage in higher-order thinking and to communicate substantively about what they are learning. Research has demonstrated that pedagogy focusing on high levels of intellectual quality benefits students, whether they are high or low achievers, from backgrounds typically identified as educationally disadvantaged or gifted and talented, or students identified with special needs.

Quality learning environment refers to pedagogy that creates classrooms where students and teachers work productively in an environment clearly focused on learning. Such pedagogy sets high and explicit expectations and develops positive relationships between teachers and students among students. Research into effective teaching, authentic and productive pedagogy, teachers’ expectations, students’ time-on task and student engagement has consistently demonstrated that classroom in which there is a strong, positive and supportive environment produce improved student outcomes.

Significance refers to pedagogy that helps make learning meaningful and important to students. Such pedagogy draws clear connections with students’ prior knowledge and identities, with contexts outside the classroom, and with multiple ways of knowing or cultural perspectives. That is, pedagogy that promotes intellectual quality and produces a quality learning environment also requires some means by which teachers link the work of their students to personal, social and cultural contexts (NSW DET, 2003, p.9).

While intellectual quality is central, all three dimensions are essential for improved student outcomes. Each of the three dimensions of pedagogy can be described in terms of a number of elements. These elements draw from research that links quality pedagogy to improved student outcomes. Elements are observable characteristics of pedagogy. These are summarised in Table 1 below:

Intellectual Quality	Quality learning environment	Significance
Deep knowledge	Explicit quality criteria	Background knowledge
Deep understanding	Engagement	Cultural knowledge
Problematic knowledge	High expectations	Knowledge integration
Higher-order thinking	Social support	Inclusivity
Metalanguage	Students' self-regulation	Connectedness
Substantive communication	Student direction	Narrative

Table 1: The dimensions and elements of the NSW model of pedagogy (NSW DET, 2003, p.9)

In working with the model there are four key questions:

- What do we want students to learn?
- Why does this learning matter?
- What do we want the students to do?
- How well do we expect them to do it?

Obviously, the focus of the model is to increase the quality of education and the best way to do this is through pedagogy, which has been shown to have most influence on quality of learning (NSW DET, 2003). The model is designed to promote improved student learning outcomes, cater for a wide variety of individual differences and to deliver equitable student outcomes.

Quality Teaching and TGfU

Most research on quality teaching (QT) has focused on classroom lessons with limited research on practical classes, particularly on the teaching of games. Stirling and Bell (2002) explored effective teaching and quality physical education, placing emphasis on the process of teaching and learning as well as the outcomes. They suggested that quality teaching only occurs when relevant teaching strategies combine with a quality teaching pedagogy. The Department for education and skills (2004) in England highlights the importance of inclusiveness in physical education with an emphasis on teachers having a deep knowledge and understanding of effective teaching strategies with a focus on student engagement and enjoyment.

The majority of research that does link quality teaching and games tends to focus on TGfU. Research (Crespo, Reid & Miley, 2004; Light, 2003b; Thomas, 1997a; Turner & Martinek, 1999; Werner et al, 1996) indicates the strengths of the TGfU approach and the desirability of it as one of the major approaches to the quality teaching of games. Light (2002) highlighted the effectiveness of TGfU for engagement and cognitive learning. Higher order thinking occurs from questioning and discussion about tactics and strategies and also ‘through the intelligent movements of the body during games’ (Light, 2002, p.23). Cognitive development through decision-making and tactical exploration are combined with skill development within modified games to provide meaningful contexts. Light (2002) suggests that it is difficult for some physical educators to address cognition in games. TGfU is one pedagogical approach that may assist teachers and coaches to address this issue.

Light (2003b) examined the response for TGfU pedagogical approach in an Australian University to Bachelor of Education students studying primary teaching. Student evaluations were generally positive indicating an increase in enjoyment, understanding and cognitive engagement in the games. In comparing games sense to skill-based teaching, Werner et al, (1996) state that... 'while the teacher may be convinced that skill-based lessons are having a positive effect in that some immediate skill improvement is made, the social and skill related interactions might over time convince the youngsters of their lack of ability' (p.32). Thorpe and Bunker (1986, cited in Allison & Thorpe, 1997) argued that a skill-based approach to teaching less physically able students is likely to: '...result in a sense of failure, a lack of enjoyment, poor self-concept and subsequently inhibition of long term participation' (p.11). In contrast to this, the students who exhibited low physical and technical ability in the TGfU lessons consistently reported significantly higher and more positive scores for these same factors. 'It appears that a skills-based approach serves only to highlight, confirm and reinforce – often publicly – the pupils lack of physical ability' (Allison & Thorpe, 1997, p.12).

Turner and Martinek (1999) compared two middle school physical education lessons on hockey – one using the traditional method and the other TGfU. They found that there was a clear trend towards better decision making for the TGfU group, who also scored higher for procedural knowledge. The TGfU approach enabled students to control a hockey ball more adeptly, make better passing decisions, and execute passing more effectively than under a technique approach. Harrison, Blakemoore, Richards and Oliver (2004) in their study of volleyball players, found that TGfU also increases self-efficacy of players.

In 2005, a new Personal Development, Health and Physical Education (PDHPE) Years 7–10 Syllabus (Board of Studies, 2003) was implemented in NSW secondary schools. One area that has undergone major changes within the syllabus has been that of the teaching of games with the move towards a TGfU framework. Research 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.

Twenty-five Personal Development, Health and Physical Education (PDHPE) teachers representing the NSW DET regions across the state participated in a professional development day (March, 2004) on implementing the new year 7-10 PDHPE syllabus (BOS, 2003). One workshop on this day, presented by the authors, involved utilising TGfU for quality teaching and addressing the outcomes of the new syllabus. This workshop was repeated in March 2005 with a similar group of PDHPE teachers, thus providing a total sample of 50 teachers.

At the conclusion of each workshop, the participants completed a questionnaire on TGfU and QT. The questionnaire was constructed to provide information on teachers' knowledge and experience of the QT model and also of TGfU. Overall, the group had 'general to good' knowledge of the QT model as most were head teachers of the representative schools, but few had 'good' knowledge of the concept of TGfU prior to the workshop (see Table 2).

Descriptor	Knowledge of Quality teaching model	Knowledge of TGfU (prior to workshop)	Knowledge of TGfU (after workshop)
Poor		20	
General	26	20	
Good	24	10	26
Excellent			24

Table 2. Knowledge of Quality Teaching model and TGfU of workshop participants

The questionnaire also provided participants with a brief definition of the three dimensions of QT and participants were then asked to suggest how TGfU might address each of the dimensions. The responses listed below are those that were suggested by ten or more respondents

Intellectual quality

- Critical thinking about the game
- Problem-solving, questioning
- Discussion and decision-making
- Analysis and understanding
- Deep knowledge
- Examining tactics as well as skill and technique
- Involvement in evaluating their performance

Quality learning environment

- Student-centred, self-directed
- Actively involved (cognitively and physically)
- High participation opportunities
- Cooperative/teamwork opportunities
- Modification of games
- Ownership of ideas

Significance

- Relevance to the game
- Establish meaning to the movements
- Understanding purpose of learning
- Caters for different needs and learning styles
- Concepts adaptable to other games and situations
- Utilisation of different equipment
- Student ownership of ideas

In addition to the above responses, some other notable comments from fewer individuals for each of the three dimensions included

- Intellectual quality – ‘able to synthesis ideas’, ‘directed to think about what they are doing’ and to be able to ‘synthesise ideas’
- Quality learning environment – ‘opportunity for communication’, ‘peer teaching’, ‘non-threatening’, ‘challenging’, ‘fun’ and ‘easier for teachers to monitor students and see them displaying skills/tactics’

- Significance – ‘skills and elements of sport in relevant contexts’, ‘can achieve success’, ‘easily incorporated into assessment’ and ‘life long skill’.

There was overwhelming support for the concept of TGfU complementing the three dimensions of quality teaching. From the responses and research results, a matrix showing the relationship between the QT model and TGfU has been developed (see Table 3).

Quality teaching dimensions	TGfU components
Intellectual quality	Critical thinking
Deep knowledge	Problem solving
Deep understanding	Focus on tactics
Problematic knowledge	Decision making
Higher-order thinking	Deep knowledge
Metalanguage	Deep understanding
Substantive communication	Communication
Quality learning environment	Small-sided approach
Explicit quality criteria	Large-sided approach
Engagement	Games for outcomes
High expectations	Student centred, self directed
Social support	Actively engaged
Students’ self-regulation	(cognitively and physically)
Student direction	Modification of games
Significance	Context of learning – tactics,
Background knowledge	rules, technique
Cultural knowledge	Caters for ranging abilities
Knowledge integration	Gradual progressions
Inclusivity	Concepts transferred to and
Connectedness	from other game situations
Narrative	Game appreciation
	Ownership of ideas

Table 3: Matrix linking quality teaching dimensions and TGfU pedagogy

Intellectual quality can be achieved through TGfU by effective questioning that promotes reflective thinking, decision-making and communication. The gradual progressions involved in TGfU pedagogy benefit all learners, whether they are high or low achievers, as the games and questions can be tailored to suit. Teaching games for understanding requires the learner to make the connections that lead to successful outcomes.

Quality learning environment is supported through TGfU by providing opportunities to maximise students’ time on task and engagement. Students and teachers/coaches work together to solve problems and develop tactical solutions. Team/group work, collaboration and peer learning are all encouraged. There is a focus on inclusion and development of not only skills and tactics but also game socialisation.

Significance is achieved through TGfU in that the skills, knowledge and understanding developed can be readily transferred to other games and situations. Each aspect of the game and associated skills and tactics are put into context to become more meaningful for the learner.

If the goal is to make students think, the TGfU approach to teaching games is far more appropriate than skill-based. With the tactical approach, players learn the structure of the content taught and the relationships between the concepts which comprise it and are able to transfer these concepts to other situations (Butler, 1996). 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).

Conclusion

The QT model (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. Quality teaching is about what students learn, not just about what they do. 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, 2005). However, physical education teachers must also provide opportunities for students to gain knowledge. The paper clearly demonstrates that TGfU is an approach that provides teachers to engage students in learning. 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. 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).

The QT model suggested for public schools in NSW reinforces 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 problem solving. The learning environment needs to be structured to support student learning and involve them in the process and to achieve significance in learning outcomes, students need to see and understand the relevance of what they are learning. The central components of a TGfU approach - student-centredness and tactical questioning - fit well into this prescribed pedagogy. Whilst TGfU is not the only pedagogical model for teaching games, it is most certainly one that encapsulates the dimensions of quality teaching. There are however, many practicing PDHPE teachers that have little knowledge of the TGfU approach and the teaching strategies for successfully integrating TGfU into the curriculum. Continuing teacher training and development is required to support teachers in developing an understanding and skills necessary to utilise a TGfU approach that underpins quality teaching and the teaching of games with the new NSW 7-10 PDHPE syllabus.



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Encouraging Positive Attitudes Toward Sport Through Game Sense Pedagogy in an Australian Primary School

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Abstract

Much recent research indicates that sport and physical education in schools lack relevance for many children and young people. As an Australian variation of Teaching Games for Understanding (TGfU), Game Sense strives to make student experiences more relevant and meaningful. Taking an interpretive approach the research reported on in this paper it sought to provide deep insight into primary school students' experiences of Game Sense and inquire into its capacity to promote more positive attitudes toward sport. Focused on the 'least sporty' students in a grade 6 primary school class, it was conducted in an inner city public primary school in Sydney. The research used students' drawing of their experiences to stimulate meaningful dialogue and provide insight into their experiences of cricket and softball taught using a Game Sense approach. The study showed significant improvement in attitudes toward the cricket and softball, social relationships within the class and general behaviour in the classroom.

Keywords: Attitude, Games sense, TGfU approach

Introduction

Childhood obesity is now a major public health issue in Australia (Magarey, Daniels & Boulton, 2001). While school-based Physical Education clearly has the potential to impact upon children's physical activity levels (Sallis & McKenzie, 1991), this is only likely to occur if the attitudes to physical activity developed in school are positive and relevant to the interests of students (Shropshire, Carroll & Yim, 1997). This research examined the ability of Game Sense, a Physical Education pedagogical innovation to encourage more positive attitudes toward physical activity for a small group of primary school students. The central research question was: 'Can the Game Sense approach to teaching games have a positive impact upon the inclinations of low skilled, less motivated primary school students toward sport?'

Physical Education in Australia

Educational institutions have long understood the connection between Physical Education (PE) and the promotion of social order, physical fitness, and the links between physical activity and health (For example see, Kirk, Nauright, Hanrahan, Macdonald & Jobling, 1996). However, significant social changes and changes in the meaning and practice of education

over the past few decades have seen PE struggle to show its relevance in the curriculum. In most states in Australia PE has been integrated with other subject areas such as health (and in NSW, personal development) but outdated practices and views of learning in PE continue to alienate many students (Ennis, 1999; Graham, 1995). At a time when there is a need to encourage positive attitudes toward physical activity the focus of 'traditional' PE on the drilling of isolated skills highlights what many students cannot do and excluded them from enjoyable and meaningful participation. This is a particular problem for the less 'sporty' students who have felt especially pressured and marginalised by PE (Ennis, 1999; Light & Fawns, 2001; Kirk & Macdonald, 1998). It has also tended to obscure the cognitive and social dimensions of game playing (Light & Fawns, 2001) by focusing too much on the physical aspects of games. This, in turn, has limited teacher expectations concerning the possible extent and range of student learning. In these traditional perceptions of physical education, sport has been understood to develop character, fitness and health, but its potential for contributing to intellectual development has been largely ignored (Howarth, 2000).

Game Sense

Game Sense offers teachers a means through which they can address children's disengagement with sport. It is a variation of Bunker and Thorpe's (1982) Teaching Games for Understanding (TGfU) model for games teaching, and was developed in Australia through collaboration between the Australian Sports Commission (ASC) and Rod Thorpe (Light, 2004). TGfU and Game Sense focus on teaching fundamental skills before taking part in any games. Game Sense places all learning within modified games and emphasises understanding tactics and developing decision-making. This approach highlights the 'thinking and cognition' aspects of PE and is considered by many researchers to reflect the beginnings of a significant shift in the epistemology informing teaching and learning in current Physical Education practices (Light & Fawns, 2003). While there has been considerable research conducted on teachers and pre-service teachers' responses to Game Sense in Australia and elsewhere over the past five years (Brooker, Kirk & Braiuka, 2000; Light, 2002; Light & Butler, 2005), far less attention has been paid to students' responses. This research project examined the ability of Game Sense to encourage more positive attitudes toward physical activity for a small group of primary school students by directly assessing student responses and experiences.

Methodology

Site and participants

The research was conducted at an inner city government primary school in Sydney, Australia. The research focused on a year 6 class for the duration of one school term. This class had 30 students (16 girls and 14 boys). The classroom teacher, Mr T., had found them a difficult group of students to teach, and hoped that sport might offer a way to address some of the problems he was having. He volunteered to be involved in the research in the hope that it would contribute toward establishing a better classroom culture and better behaviour. The class was taught using a Game Sense approach for one hour per week by the second author.



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Data generation

Building on the few research projects in the Physical Education field that have employed the use of visual data (Light & Quay, 2003; MacPhail & Kinchin, 2004) the study strived to make sense of students' experiences of Game Sense through the use of student drawing as a primary means of generating data. While some studies have attempted to interpret student drawings (see for example, MacPhail & Kinchin, 2004) we, instead, used student drawings to stimulate dialogue between researcher and participants. We wanted the participants in the study to lead the research process and take us into their world (Light & Quay, 2003). After Games Sense lessons, eight key informants were asked to draw their experiences of the lesson. Following the lesson all students in the class were asked to draw their experiences of it. We then chose the drawings of the eight key informants to be used in one-on-one interviews over the following week. The first author conducted the interviews by asking the participants to explain their drawings, building questions that explored the meanings they had expressed in their drawings. In this way data were generated from the dialogue stimulated by discussion of the drawings. The key informants took part in three rounds of interviews over the nine weeks. The data was generated not from the researchers' interpretations of the drawings, but from the dialogue that it stimulated in the interview process. Data were also generated through questionnaires and researcher observation by the first author as an observer and by the second author in his role as teacher during the one-hour sessions.

The initial questionnaires were used to get a general picture of the students' attitude toward sport and experiences of it and were used to help identify the least 'sporty' among them. The questionnaires were completed by the entire class prior to the commencement and at the completion of the unit. The first author spent one full day with the class each week of the study noting class behaviour, relationships and the tone of the class. The second author's observations were limited to the one-hour lessons he taught and the time immediately before and after them.

Data analysis

As a researcher/participant, the data analysis was conducted using grounded theory (Glaser & Strauss, 1967). This involved a process of generating data, identifying emergent themes and ideas that were then explored in further data generation. As the process evolved the researchers developed theories to explain what was going on and tested them in subsequent rounds of data generation eventually linking them to formal theory.

The key informants

In order to protect the anonymity of the participants, all names used in this research are pseudonyms. Mark was physically small: a boy who wanted to perform well, but sometimes could not. He was popular with a lot of students and, in his own words; he was 'okay' at sport. Jessica was an eloquent girl, who was well rounded at most subjects, without being gifted. At the beginning of the Game Sense lessons, from my observation, she didn't involve herself much. She chatted all around and stood aside, but in the last several classes, she performed quite well, especially in fielding where she was keen to catch the ball. Emily was similar to Jessica, well balanced and bright. Katherine was tall and rough-and-tumble. She worked as hard as she could and had a happy attitude towards life. She was a netball player who was not interested in other sports, and who said at initial interview that sports did not involve thinking. Rosemary was one of the strongest students, a high achiever in Maths and English but not at

all athletic. She was quiet but not shy. William was a 'non-participating' student who was physically challenged and not interested in sports. Emma, an extremely tall and strong student, was shy and slow. She was embarrassed by her height and slow reaction times and was always picked last by her peers. Rachel had a more positive attitude to sports since she received a lot of encouragement from her parents but was physically quite small which negatively affected her participation.

Results

The pre intervention questionnaires indicated that sport was a popular activity among the majority of students in the class both as an activity they participated in and watched on television. Based on the initial questionnaires we divided the class into four groups of: 1) Those who did not like sport at all (2), 2) those who were ambivalent about it (7), 3) those who enjoyed sport and played it regularly (10), 4) those who made sport a central part of their lives and regularly took part in organised competitive sport (11).

Gradual improvement in performance

As Kirk and MacPhail (2002) suggest, much of the research on Teaching Games for Understanding (Games Sense is a variation of this) has focused on improvement in game play and skill execution. While this research is more focused on the social aspects of learning, understanding was tied into enjoyment, understanding what the games were about and the ability to execute appropriate motor skills. Over the study there was significant improvement in playing ability. Post intervention questionnaires indicated that most students in the class felt their ability to play cricket had improved in terms of skill development and understanding.

Initially, the second author found the class difficult to control and some of the girls in particular were unskilled and lacked confidence in their ability to play. When shown and explained the game, a group of students, mostly girls, stood far behind and paid little attention. However, after only two weeks started, the students, in general, began looking for empty spaces into which to hit the ball and talking about it. During the game the second author stopped to ask the students some focus questions to help them think about their game strategies and give tips to individual players. Students began to think and gradually became more engaged. After a questioning session, a tall girl hit the ball only a small distance to make it hard for the fielders, and another girl pretended to hit the ball in one direction but then hit it in another. The questions were helping the students focus on meta-cognitive game-understanding strategies.

By week three most students were able to verbalize sound strategies about fielding but could not yet embody this understanding in the way they played. During this week the second author encouraged more 'team talk' and gave opportunities for this to happen. They were however, reluctant to get involved in these team talks. They were not yet engaging in real discussions: they took responsibility for themselves but not the team as a whole. We both felt that, while the use of modified games seemed to be encouraging much improved understanding and play, the questioning was not making a significant contribution to learning. This had much to do with the behaviour problems of the class and their reluctance to pay attention. However, at the end of each class when they were seated for a post game discussion and reflection they were attentive and produced some good ideas about play.

In week five some students who had not been able to hit the ball earlier began to try harder and succeed. They also appeared more happier. A lot of the students were started encouraging each other, using both verbal and body language. They demonstrated a growing sense of class unity by cheering and hugging each other when the team or someone in the team performed well. The students' improved in understanding, skills execution and interpersonal relations. In week six the beginning of the game went very smoothly with far less time used by the teacher (second author) in organising the class. Everyone seemed very engaged, found their individual positions promptly and played more confidently. Although the fielding team was not well organised, everyone was eager to try and catch the ball to help the team. The batting team was not just sitting there, passively participating, but was concerned with what was happening in the field. By week seven we noted a remarkable change in the class's interest and motivation. At this they had finished the cricket and moved on to play softball in a nearby park which was about ten minutes walk from the school. The students all grasped the new sport quickly and were quickly able to transfer their tactical understanding from cricket to softball. There was improved teamwork with the batting team with many students excitedly shouting suggestions. One girl who was not good at sport and lacked confidence showed improvement in the way she approached the task of batting in the modified game being played. There was no penalty for missing and this allowed her to be more confident and less anxious. After several tries, eventually she made a successful run. She ran back to her team, yelling "I did it." She looked really happy. Students showed collaborative and individual tactics and skills. I observed that some of those 'less sporty girls' from the beginning were now really participating in the game. This was a remarkable transformation from a disengaged and uncooperative mess to a motivated and competent team game.

While this research was being conducted, the Ashes cricket competition between Australia and England was being contested in England. This provided a very valuable means of gauging student interest in cricket. In week one there was no interest in cricket with many girls clearly showing their dislike of it by refusing to engage in games. However, by week seven there was great interest in the Ashes within the class. Almost two thirds of the class said they had watched it. Four of the students said that they wouldn't have watched it if they hadn't learnt about cricket in Game Sense class. By this time behaviour and student relations had also changed. The students became more settled and sensitive to each other over the nine weeks. They listened and were very attentive. When asked to describe cricket, Mark said: "I describe it as a good game to play, fun, more fun when you're having team members to have working together with each other, and arguing with them fighting over stuff, yeah" (interview, September 2, 2005).

Improved social interaction and social relationships

The most striking result of this research was the improvement in relationships within the class and in self-esteem among the less sporty. Mark said: "Well, we just get to know more people in our class better since some people don't play with other classmates" (interview, September 2, 2005). Team games have great potential for developing teamwork and learning to work and cooperate with others. However, people can be very selfish in team games and learn little about teamwork. For good social learning to occur this has to be an intended outcome with the use of teaching that focuses on achieving it. The modified games used in the cricket and softball all limited the potential for individuals to dominate and encouraged teamwork. In fact, the enjoyment of working as a team was a prominent feature of the study.



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When asked whether they preferred to play sports by themselves or with a team, most students said they preferred playing in teams. Mark said, “I like having like teamwork, how they work together and cooperating” (interview, September 16, 2005). Katherine said: “I think it gives you more cooperation skills and it teaches you to like, it teaches you to not be selfish when you are playing with groups and things” (interview, September 2, 2005).

Emily thought there was a big effect from the Game Sense classes on the relationship between girls and boys. She said: “It’s a big effect. Because, like, with the kanga cricket (modified form of cricket for primary schools), we had to be boy girl partners which was really good, because we could interact with boys, usually the boys wouldn’t talk to us and we won’t talk to them” (interview, September 16, 2005).

Personal perceptions of learning

One of the things about this study that struck us was the difference between what we, and Mr T observed and the real experiences of the students that the interviews and the use of student drawings exposed. This was confirmed in the post intervention questionnaire for the entire class. Over the duration of the term we saw significant improvement in the class’s ability and inclination to play cricket and softball. We also noted significant improvement in social relations and general behaviour. From our perspective they were encouraging but not overly remarkable. There were still many problems. However, when viewed from the perspectives of the key informants the results were remarkable. The use of student drawings and the dialogue it generated provided us with insight that continued to surprise us. They saw their learning as being far more marked than we did. They felt they had learnt so much about tactics and had really developed their skills at the same time. As the games developed and became more complicated over the term, the key informants all felt their abilities developed at the same time. They didn’t feel that they were struggling to ‘learn’ something but that they were just having fun in the game and that learning skills developed in a ‘natural’ way. This learning through practice provides an example of situated learning in which the whole person is engaged in learning and it is not separated from the practice (Lave & Wenger, 1991). William said that, “I don’t realize it [the changing a rule of the game], cos I am already having fun, so I don’t realize I’m actually thinking or like learning, I just think I am having fun” (interview, September 16, 2005).

The more students practised in Game Sense lessons, the more they realized the importance of thinking skills. Rachel said, “[thinking is] very important, if you want to win the game, just having fun, doing your best and thinking a lot. I think sports are just like good as maths or something, because using your brain just as sports just maths or everything” (interview, September 16, 2005). William said, “Like, normally we play sports that include not much thinking, but these few weeks, we’ve been playing sports that include us to think where to hit the ball, not directly up to the person” (interview, September 16, 2005).

Students’ thinking

The students knew that the second author structured the learning environment and stimulated their thinking, but they said that they still thought by themselves. For example Rachel said, “I think that Richard stimulates us and I think it’s really well and good, because we got to think for ourselves, and we got to know the game better instead of someone just to say, the roles just go, do this, do that, it’s really good” (interview, September 2, 2005).

At the end of week two, after some teacher questioning, some good ideas started to come from the students about fielding. One boy contributed “make a close semicircle”; a girl said “it is good for everyone to spread out, free space will be tighter”. Some students during the discussion were really active and couldn’t put their hands down. Over the term the students became more open to having discussions and conversations about their games. Emma said: “Yes, I do, cos you learn a lot from everyone. It’s good to listen to every body actually, it’s not fair to cut them out, it’s good to take something from everybody, cos even the people that not really good at sports still learn strategies” (interview, September 2, 2005).

Improved attitudes to, and interest in, sport

The intervention over one term of nine weeks had a significant impact upon the attitudes of the eight key informants and upon the entire class as indicated by the post intervention questionnaire. In fact, only one student reported a negative attitude toward sport. At the beginning of the study we had identified her as having very negative attitude toward sport and had sought to have her as a key informant but her parents would not consent to her participation as a key informant. The Game Sense approach provided a more secure and supportive atmosphere than the traditional technical approach does and this was a significant factor in changing attitudes toward sport. Rather than put students under the glare of the teacher and their peers that typically happens in the technical approach Game Sense places students in games where they can all contribute and feel valued to some extent. The less sporty students said that they normally felt nervous or scared when they were playing sport because they might be blamed by their team-mates and even left over or last picked. Since in Game Sense there is no right and wrong action, with the emphasis on contributing ideas, a lot of students felt success was achievable: “I didn’t really feel left out, I feel more welcomed with people and as friends and stuff” (Mark, interview, September 2, 2005). This reduction in anxiety and sense of being a team member was a very significant contributor toward the development of more positive attitudes toward cricket and softball:

I think I did get more self-confidence, with play with Richard, because everyone gets a go not just me, it’s just like heaps of fun. (Rachel, interview, September 16, 2005)

All informants said that before these Game Sense lessons they thought sports lessons were boring, but after them, they were really looking forward to new sports classes:

Yes. I always think playing sports are pretty boring, after this term with Richard and you, but I think it’s a lot of fun now. Cos I normally don’t really like sports, but after these few classes sessions, I really like it now and I look forward to whenever, like I can go. (William, interview, September 16, 2005)

On the way back to school from playing softball in the park the second author asked William how he felt about the lesson. William answered with surprising enthusiasm: “I really really really really really loved it.” The second author then asked him how he had felt before the unit had started. William’s response confirms the significant change in attitudes to sport that many children in the class experienced: “No, definitely not. I thought it would be really boring. I thought I’d hate cricket. But I love it.”

A big effect that sports can have on children is helping them to feel good about themselves. Using the Game Sense approach realised this potential for the students in this study:

I think ... it gives me happiness to know that I can succeed in something, that I can do something, it make me feel good sometimes. (Katherine, interview, September 2, 2005).

Jessica confirmed this very positive response to the unit: “Makes me feel better, makes me feel quite fit, feel good about myself and I know that I am doing the right thing. (Jessica, interview, September 16, 2005)

Discussion

Affective responses

Emotion is an integral part of people’s living and emotions fostered in students’ study can help them learn better (Heywood, 2001). Greenspan (1997) argues that teachers cannot ignore or separate emotion from intelligence. Creating a positive and emotionally rich environment where risk taking is encouraged, relationships are valued, and personal initiative and enthusiasm are cultivated is essential for teachers (Heywood 2001; Kobayashi, 1991). This is also very important in making children’s experiences of sport enjoyable enough to develop life-long positive attitudes toward it. The students in this study showed their happiness with smiling faces, reduced apathy, and more attentive class behaviours. They looked forward to future Game Sense classes and had a positive relationship with the supervising teachers. When describing the feeling of the Game Sense classes, most students stated that “it was really fun” or “I really enjoyed it”. Previous research on Game Sense has also emphasised the affective dimensions of learning (Light, 2003; Pope, 2004). The ‘fun’, ‘joy’ or ‘enjoyment’ dimensions of these Game Sense lessons were embedded in and arose from students’ sense of achievement. The reasons they gave for this was the inclusive nature of Game Sense, which encouraged far more participation and genuine engagement in the games. The social interaction stimulated by Game Sense made the students feel needed, encouraged, and supported by their classmates. They felt they participated in the decision-making processes of the games and that they could challenge and support their team-mates. Game Sense classes transformed a particularly male dominated sport (cricket) into one enjoyed by all. The responses of the ‘les sporty’ girls were particularly convincing. Several of them were not looking forward to playing cricket and had said that it was a boring game. By half way through the study the same girls had stayed up late to watch one of the cricket test matches during the Ashes series in England.

As Light (2002) found with his study of primary pre-service teachers, the students’ enjoyment also arose from their increased understanding developed through the use of modified games. Game Sense lessons started with simple, modified games that provided immediate engagement for students, and opportunities for achievement and interaction. O’ Reilly, Tompkins, and Gallant (2001) support the notion that that low organisation and modified games can stimulate early student attention. With technical mastery de-emphasised, feeling less scrutinised and less intimidated, the less sporty students could use their ‘enabling skills’ to play the game and contribute to their teams using their brains. The students’ experience of achieving what they might have seen as ‘impossible goals’ encouraged feelings of liberation, enjoyment and empowerment.



In the lessons the students received constant and positive feedback that encouraged them to keep trying to polish their skills and think of more strategies. What Bunker and Thorpe (1982) coined “game appreciation” obviously increased for these students, as their identities shifted from ‘loser’ to ‘valued team member’ as their understanding of the games grew.

Cognitive learning

Physical education researchers have highlighted the potential Game Sense holds for cognitive development (Kirk & Macdonald, 1998; Kirk & MacPhail, 2002; Light & Fawns, 2003). The linkage of movement and the verbalization of understanding in Game Sense (Light & Fawns, 2003) integrate the cognitive dimension of the game with skill development (Kirk, et al., 1996). Our observations and interviews suggest that these Game Sense classes engaged students cognitively and provided for increased understanding and enjoyment of games. The student-centred focus promoted increased verbal and bodily interaction, more in-group interaction and increased empowerment in decision making. This made significant contribution towards the students’ enjoyment and confirmed existing research (O’Reilly, Tompkin & Gallant, 2001; Light & Fawns, 2001). Conversations prompted students to think about and verbalize solutions and to bring embodied understandings to a conscious level. Teacher questioning encouraged the students to think about what they were doing and to analyse and reflect upon their own action. Through such dialogue students opened themselves to others, and had more opportunities to influence their understanding of the environment and the world in which they are living.

Complex and situated learning

Some researchers have argued that learning is a complex, multi-dimensional process and that it is socially and culturally situated. (Davis & Sumara, 1997; Lave & Wenger, 1991; Vygotsky, 1978). This implies that learning cannot be understood as a neat linear process, but must be a complex and varied one. The students’ complex webs of experience co-emerge with their understanding and learning (Davis & Sumara, 1997). In PE classes there are countless ties and relationships between students, both socially and physically, their teachers, the sports equipment, the space of the court as well as other variables. Game Sense places students into this relational web. Students are part of the environment and part of the game: they create and reflect the environment, rather than act as isolated, detemporalised and decontextualised subjects. With the teachers’ facilitation, students are invited to approach and interpret this world for themselves. Part of this process is how students learn from Game Sense classes that there is not any single correct way or solution to perform games. This atmosphere allows even the less skilled and less confident to contribute to the collective development of knowledge. All students are taught that there is no one who can really substitute for them in their apperceptions of the world. They have to learn and explore it for themselves. This is what Game Sense offers to education. It offers a rich and adaptable of way of teaching complexity.

The complex learning in this case study was evidenced in a number of domains: post-game talk and the game playing processes themselves. The game situation was ‘live’: students had to think on their feet and deal with dynamic contexts. Light and Fawns (2003, p.165) have pointed out that “performance movements are shaped by a range of cognitive processes” and that that much cognition happens more quickly than through conscious thought. What they describe as “embodied consciousness”, or “the unitary relationship between mind and body as one entity” (Kirk et al., 1996, cited in Light & Fawns, 2003, p. 165).

Conclusion

This research project sought to gain insight into the inner world of students' experiences of Game Sense by giving voice to children's own experiences of Game Sense through drawings, interviews and the dialogue that it produced. Our observations of lessons as both teacher and observer indicated a reasonably significant improvement in playing ability, attitudes toward the games played and social interaction. The inner views of the informants, however, were more striking. From their perspectives they had made profound strides in the development of skill and tactical knowledge of cricket and softball. They also reported very significant changes in their attitudes to cricket and softball as participants and as consumers of sport as entertainment. The changes in some of the girls' attitudes to cricket over a relatively short intervention were remarkable. It is certainly possible that much of this may have been due to the expert teaching of the second author and this cannot be discounted. However, one of the most successful lessons was the last one when the second author was unable to attend and Mr T. took over. He had been slowly taking a more prominent role in the classes moving from observer to team teaching and finally independent teaching. The participants in this study indicated that they had been stimulated to do more challenging thinking through Game Sense, but rather than offering linear, curricular descriptions of learning, the students described their social and emotional involvement in game playing. The students could articulate different modes of learning: differentiating post-lesson discussion and thinking from embodied game playing. The students understood that techniques and tactical skills were important to games but that these were underpinned by generic critical thinking skills. This marks a significant break with traditional PE teaching.

At the study's conclusion, the students universally felt that the Game Sense approach to teaching cricket and softball had been more inclusive than the traditional approaches to PE that they had previously experienced. The social interaction stimulated by Game Sense made the students feel needed, encouraged, and supported by their classmates. The eight key informants indicated that they knew their classmates better at the end of the term and had established more friendships and increased teamwork. An effect of its emphasis on inclusively was that the Game Sense classes transformed a particularly male dominated sport (cricket) that typically excludes females into much more democratic game, enjoyed by all. The inclusive nature of the Game Sense approach relieved much of the anxiety of performing in front of peers and the teacher for a lot of the less sporty students and this helped them build self-confidence. Encouraged by a sense of achieving what might have seemed to be 'impossible goals', the 'less sporty' students developed more positive attitudes toward cricket in particular and sport in general. We recognise that such a relatively short intervention is unlikely to have lasting results but are hopeful that Mr T. will continue to develop his Game Sense teaching and that this will help in the provision of positive experiences of sport for his students. The results of this study are very encouraging and indicate that Game Sense can provide satisfying experiences of sport and encourage more positive attitudes toward sport among the students who lack confidence and are less inclined to make sport part of their lives.



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Teaching Attack and Defence in Team Games: A Teaching Games for Understanding Approach

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Abstract

This workshop is based on the publication Teaching Attack and defence in Team Games: A Teaching Games for Understanding (TGfU) Approach, (Slade, 2005). In this workshop I will demonstrate how, through the use of the TGfU methodology, one can teach both fundamental movement skills and generic tactics and strategies associated with attack and defence in team invasion games.

Keywords: Attack and defence, TGfU approach

Background

Holt, Streat & Bengoechea (2002) published results of a survey of one thousand physical education classes in Western Canada, that revealed over 55% of class time was spent in games. My extensive experience of physical education teaching in New Zealand schools would allow me to suggest that should a similar survey be undertaken here, it would produce comparable figures regarding the time spent on game playing in our school physical education programmes. Outside of school in New Zealand there are also many national, regional and local programmes that encourage young New Zealanders to take part in games and sports. Recently though, questions have been asked as to the effectiveness of these programmes in achieving outcomes associated with both the development of fundamental movement skills and in their role as a motivating vehicle to encourage young people to maintain sufficient interest in and an understanding of, the value of physical activity as a means to remain physically active as adults.

In a New Zealand study of the performance of fundamental gross body movement skills Sanders & Kidman (1998) raised doubts about the effectiveness of New Zealand primary school physical education programmes in developing children's fundamental movement skills. Their study of 225 Dunedin school children aged 10 years suggested that 82.2% of the children were either poor or very poor in fundamental gross body motor skills. Their study also revealed that 84% of these children participated in some form of after school or community sport. While that last statistic was encouraging from a participation perspective what was disquieting was its reflection on the contribution of junior sport coaching programmes in the development of children's fundamental movement skills. It is quite well documented (Fox 1992; Lee, Carter & Xiang, 1995, as cited in Sanders & Kidman, 1998) that an absence of fundamental skills is a barrier against long term involvement in physical activity.

Many years earlier than the Sanders and Kidman study, Bunker and Thorpe (1983), at Loughborough University in England were also expressing dissatisfaction at both the manner of game instruction and the outcomes they were observing in English schools. For example, they felt that students leaving school did so with little understanding of the tactics and strategies of games and as such missed out on one of the real pleasures and motivating factors required to remain active in sport namely, being capable of employing tactics in games. In response to those concerns they developed a methodology of instruction, adopted in this text and demonstrated in this workshop, of Teaching Games for Understanding (TGfU).

The adoption of the Bunker/Thorpe TGfU methodology in the Slade (2005) text was made because I believe we all, but especially children, appear to have an almost inherent desire to play games. Games therefore provide the motivation for participation in physical activity. The TGfU model also provides scope to address concurrently, the development of fundamental movement skills and the teaching of tactics and strategies of attack and defence in team games. It is hoped that the motivation from playing games in this manner will transfer positively to an interest in sport and physical activity in general that will encourage students to remain physically active as adults.

Fundamental skills & tactics

The games used in this workshop from the Slade (2005) text only require the use of the gross-body motor skills of running, dodging, catching and throwing. The effect of this is twofold. Firstly, the students repeated exposure to those fundamental movements means they learn those skills. Secondly, because the movements are so 'simple' the students are able to overcome the attention deficit typically faced by novices playing a game. Typically a novice's primary focus is on the techniques of the game. Because this primary focus takes so much of their attention they lack sufficient secondary attention capacity, an attention deficit, to undertake the cognitive activity of thinking about the tactics and making decisions about how to play the game.

Legitimate peripheral knowledge

In identifying that games take place within a social-ecological context, Kirk and MacPhail (2002) pointed to a problem for teachers and coaches associated with instructing novices. They noted that increasingly novices bring considerable declarative knowledge and motivation, to their early introduction to games and sport, gleaned from hours of viewing sport on television. They suggest that novices arrive having formed a legitimate expectation of what a game will feel like to play. They also suggest that if the introduction to that game does not meet that expectation of how they anticipate the game will feel, then the novice may be reluctant to continue in the sport beyond their introductory experience.

The problem for the teacher or coach is how to capture that motivation based on the novices peripheral experiences. How to provide them with early game and sport experiences that allow them to participate, with underdeveloped movement skills, in ways which make them feel like they are playing the game they've seen on television or at some venue. The games in the text (Slade, 2005) and demonstrated in this workshop will demonstrate how it is possible to achieve that outcome.

Games used in the workshop

In this workshop the major tactical concept I wish to demonstrate through using the TGfU approach is progressive-zone-defence. The games used to do that are called Splitz Attack, Zone Defence, Outlet and 5:3:2 Goal.

In the first game, Splitz-Attack players try to progress through entrance gates to three different levels. Safe zones are provided immediately behind the gates. There is always one more gate to get through than defenders e.g., Level One, one defender and two gates, Level Two, three gates and two defenders. Key concepts for attackers include, dodging, feinting attacks and timing their attempts to pass through a gate. For the defenders some concepts include not targeting one player but using an off-centre sliding zone defence.

Game two, Zone Defence, is a 3 vs 3 passing game where the object is to throw a ball to hit or knock- over one of two cones. The cones stand at either end of the playing area inside hoops. Having two cones to defend forces two of the three defenders to stand close to their cones. This allows the third player to play in front of them. The game structure forces a pyramid zone defence on the defenders. As the attackers probe from side-to-side looking for space to throw the ball and hit the cones, the defenders have to slide towards the point of attack. This forces the defenders to play using a sliding zone defence.

The game Outlet is exactly the same as Zone Defence except in one aspect. After a shot or turn-over by the attackers, the defending team must make an outlet pass to one of their two players standing in hoops at half-way. After the outlet pass the passer exchanges places with this hoop player who passes and enters the game to keep the teams at 3 vs 3. This introduces elements of speed into the game, teaches the basic tactic of an outlet pass while maintaining the game around the concept of a zone defence.

The games in this series become progressively open in their structure. In 5:3:2 Goal, six players, without running with the ball, attempt to make 5 passes in Zone One without being tagged while in possession of the ball or dropping it. In Zone Two – three passes and in Zone Three two passes. They then try and score a bonus 10 points by throwing the ball into the goal in the manner of Team Handball for a possible 20 points.

In Zone One there is one defender. If the attackers are successful that defender joins another defender in Zone Two to make it 6 attackers vs 2 defenders. Again if successful, those two defenders drop back to join another defender in Zone Three to make it a 6 vs 3 scenario. The defenders dropping back provide the attackers with the problems of dealing with a progressive zone defence that increasingly requires more accuracy and precision from their throwing and catching techniques. It also requires considerable thought to over-come the structure of the defence.

In all of these games the context gradually changes from closed to open skill playing environments. However, only four fundamental skills are used and concepts associated zone defensive strategies are taught.

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The Framework of Teaching Soccer for Secondary School Students in Hong Kong – The TGfU Approach

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Abstract

This article reports a workshop presentation suggesting a conceptual framework of teaching soccer by adopting the TGfU approach for secondary school students in Hong Kong. It was intended to help teachers to tackle three basic questions of instruction namely, “Why to teach?”, “What to teach?” and “How to teach?”. Firstly, the emphasis of teaching soccer should focus on adopting experiential learning concept for cultivating the learning-to-learn skills highlighted in the current education reform. Secondly, the attacking and defending principles of soccer were assumed to develop themes as teaching content, which were the basics for all tactical concepts of soccer performance. Thirdly, teachers could make use of the teaching progression of a variety of games forms and cognitive deliberation techniques for sequencing learning experiences for students. The framework of using experiential learning as theoretical basis, developing learning-to-learn skills as possible objectives, selecting themes from attacking and defending principles as teaching content and sequencing teaching activities from the games forms and cognitive deliberation techniques served as practical guides for teachers to teach soccer by using the TGfU approach in the context of Hong Kong.

Keywords: TGfU approach, Soccer, Games teaching

Introduction

Teaching Games for Understanding (TGfU) has been developed by Bunker and Thorpe (1982) of Loughborough University in the late 1970s and early 1980s. It has subsequently been adopted as a popular instructional model for physical education (PE) worldwide. The model places emphasis on students’ understanding of games through guiding them to acquire competence in game-play and understanding of game tactics. Mitchell, Oslin and Griffin (2006) summarized the merits of TGfU and suggested that students’ interest and excitement in games resulted from TGfU can serve as a positive motivator. Students would be empowered with knowledge through increased understanding of the game and thus would be less reliant on the teacher for their participation and decision making. Moreover, students could transfer their understanding across games since games in the same category were structured with similar tactical problems.



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Martin and Gaskin (2004) commented that the use of TGfU in games teaching was to a certain extent, applying the concept of experiential learning (Kolb, 1984; McCarthy, 1980). Experiential learning was first modelled by Dewey (1938) and expanded by substantial contributions from Lewin (1951), Piaget (1970), Schon (1983), and Kolb (1984). The educational process of TGfU may be understood in the form of Experiential Learning Cycle (Figure 1) described by Kolb (1984). It starts by involving students in a particular game form as the concrete and structured experience. Opportunity will be provided for students to reflect and understand tactical concepts indirectly through a variety of cognitive deliberation techniques. Students will then be involved in the game again for testing the tactical solutions resulted from their reflection. On the whole, the experiences of game play are integrated with facilitated reflective processes. It aims at helping students to explore the experience of game play, analyze pattern of tactical movements emerged, strategize for the next experience and transfer learning to another environment in games as far as possible (Ricketts & Wills, 2002). Accordingly, TGfU can be conceptualized in games teaching as following sequence: (a) Game (experience), (b) Cognitive Deliberation (Reflection and Forming abstract concept) and (c) Game (testing in new situations).

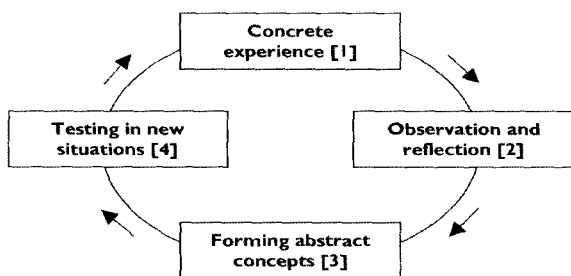


Figure 1. Kolb's experiential learning cycle (Smith, 2001).

For successful promotion of learning through TGfU, Metzler (2000) commented that teachers must be able to identify the major tactical problems in a game and organize learning task to focus on the development of solutions to the inherent problem. He or she must be able to use games to design learning tasks that develop tactical awareness and the motor skills needed to perform in the game. Moreover, students have to be provided with meaning reflection to be engaged with tactical problems.

Similarly, for successful implementation the TGfU model, “teachers must be truly knowledgeable about game structures and be able to select developmentally appropriate game forms and modify games to help students understand the activities without violating the basic principles on which the games are based.” (Harrison et al, 2004, p.187). Teachers have to be helped in understanding the framework of teaching games by using TGfU conceptually. The purpose of this paper is to suggest a conceptual framework for helping teachers to plan and structure the “why”, “what” and “how” of the teaching soccer by using TGfU in the context of Hong Kong.

Framework 1 – Educational goal of PE curriculum in Hong Kong: WHY to TEACH?

Ever since the late 1990s, the education reform has been launched in Hong Kong with the emphasis of cultivating students' whole person development and the learning-to-learn

capability (Education Commission, 2000). The Curriculum Development Council of Hong Kong (2002) also suggests that PE, as a key learning area in the school curriculum, should aim at developing students' confidence and physical competence, as well as their ability to involve in a wide range of activities associated with the development of an active and healthy life-style. Within this context, the aims of school PE should contribute not only to students' physical, intellectual, social and moral development, but also their learning-to-learn capabilities in terms of generic skills namely collaboration, communication, creativity, critical thinking, and problem solving. The cultivation of students' learning-to-learn skills is also thought to be important for developing students to be life-long learners (Education Commission report, 2000).

In response to the current education reform, teachers are recommended to think of innovative teaching approaches to enhance life-long learning skills. Accordingly, the learning-to-learn skills namely collaboration, communication, creativity, critical thinking, and problem solving are recommended to be the guiding objectives of TGfU units.

Framework 2 – Attacking and defending principles: WHAT to TEACH?

Wade (1970) suggests that there are a number of attacking and defending principles that are vital for the successful performance and tactical understanding of soccer. All tactical movements begin with ball possession within which all players of two teams are competing for. The team with ball possession starts attacking while players of the opposite team begin to defend. The key principles that players of the attacking team have to employ include supporting each others in depth, width, mobility and penetration aiming at creating opportunities to score goals. In response, players of the defending team try to employ depth, balance, concentration, control and composure to defend and deny scoring opportunities and regain ball possession.

Holt et al (2002) also suggest that “a player who understands the key principles of soccer will have a good understanding of similar sports, such as field and ice hockey, rugby, lacrosse, or water polo, despite not yet having the specific technical skills developed to play those games” (p.170). It is recommended that the principles of attack and defense of soccer should serve as practical guides for developing, planning and sequencing teaching and learning themes and units. The details of the principles are explained as follows:

Attacking Principles

<i>Tactical Problem</i>	<i>Description</i>
Penetration	advancing to pass defenders by shooting, dribbling, passing, running or group play
Depth	Supporting team mates upfront and behind for creating scoring and safe options.
Mobility	Creating numerical advantage opportunities through changes in position and movement off the ball.
Width	Supporting team-mates from the broad aiming at stretching defense, creating space and isolating defenders to 1v1 opportunities through passing.
Improvisation/Creativity	Individual flair achieved by breaking over dribbling, running with the ball, diagonal run, overlapping run, over taking or blind side runs.

Defending Principles

<i>Tactical Problem</i>	<i>Description</i>
Delay	pressuring player with ball, closing the gap and denying space to slow down the attacking and allow defenders to organize.
Depth	assisting the defense by providing support in defending the depth.
Balance	reading the attack and positioning with equal or greater number of defenders at the point of attack while simultaneously covering the vital area near the goal and the blind side.
Concentration	compressing or restricting the attack into a confined area or the defending third.
Composure	patience to delay and wait for support, discipline to play goal side to stop shooting opportunity.

Framework 3 – The method: HOW to TEACH?

A key component of Kolb's (1984) model of experiential learning is reflection. Dewey (1938) defines reflection as "the international endeavour to discover specific connections between something which we do and the consequences which result, so the two become continuous" (p.151). The reflection process turns the experience into experiential education (Joplin, 1981). It requires the teacher to assume a facilitator mindset to nudge students into overcoming their insecurities and inhibitions in order to learn. After a game experience, students will be provided with the opportunity for cognitive deliberation. The active reviewing cycle, 4 "Fs" (Fact, Finding, Feeling and Future), suggested by Greenaway (2000) may be served as practical guides for teachers in structuring stimulating questions for meaningful reflection. The following are some of the examples of how the 4 Fs can be used for motivating students to think as well as the sample lesson plans:

- (i) Facts – What had happened? : A memory exercise where people recall the sequence of events or describe key moment or forgotten details.
e.g. What have you achieved in the game?
- (ii) Feelings–What did you experience? : Encourage people to tune into their experiences and to express and share their feelings.
e.g. How did you feel about being successful/ unsuccessful in achieving the tactical goal?
What was/were the key element(s) of achieving the tactical goal(s)?
- (iii) Findings–What did that happen? : To brainstorm a list of issues they could explore.
e.g. In what way and to what extent have you achieved the tactical goals in the game?
What is/are the key tactical position(s)/movement(s) in applying the tactical concept?
- (iv) Future – How will it affect you? : Typically a planning exercise.
e.g. What will be the key tactical movement for achieving the tactical goal?

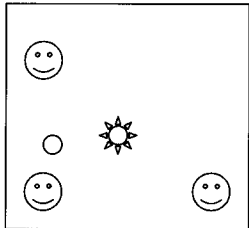



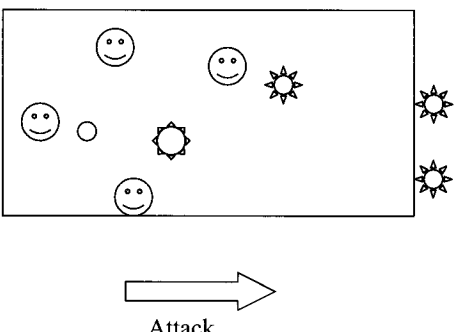


Sample lesson (1)

Education Intentions:

- a. Tactical Problem – Support with width
- b. Generic Skills – Critical Thinking

Activities

<p>1. Briefing of the game (experience): 3 Vs 1 ball possession game in a 10m X 10m grid</p>	<div style="text-align: center;">  </div> <p>Key :</p> <ul style="list-style-type: none">  Attacker  Defender  Ball
<p>2. Cognitive deliberation - Group discussion (reflection):</p> <ul style="list-style-type: none"> i/ How many passes that you can keep in the game? ii/ How did you feel about being successful/ unsuccessful in keeping the ball possession? iii/ What was/were the key element(s) of keeping the ball possession? iiii/ In what way and what extent have you achieved the ball possession in the game? iiib/ What is the key tactical position/movement(s) in applying the tactical concept? iv/ What will be the key tactical movement for achieving the ball possession? 	
<p>3. 3 Vs 1 ball possession game</p>	<p>(Discussion for effectiveness and efficiency)</p>
<p>4. 3 Vs 1 ball possession game with conditions of limited touches</p>	<p>(Challenge by increase complexity)</p>
<p>5. 4 Vs 2 score by passing to the baseline player or keeping 10 passes in 10m x 30m grid.</p>	<div style="text-align: center;">  </div>
<p>6. 4 vs 4 small-sided game</p>	<p>(With Discussion)</p>
<p>7. Overall Debriefing</p>	<p>Hong Kong Institute of Education Library</p>



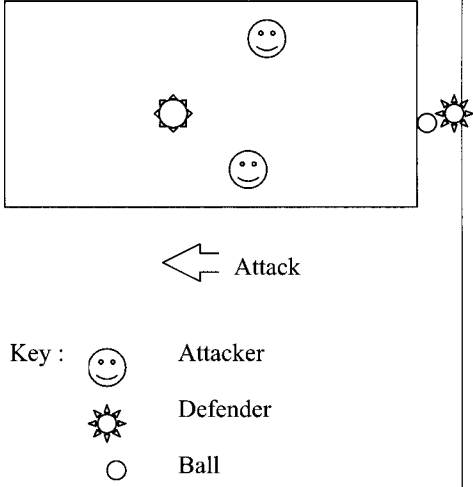



Towards a real game situation

Sample lesson (2)

Educational intentions-

- a. Tactical Problem – Delay in defense
- b. Generic Skills – Communication

Activities

<p>1. Briefing of the game: 2 vs 2 with one defending player retreating from 10 m upfront in 10m x 30m grid</p>	 <p style="text-align: center;">← Attack</p> <p>Key :</p> <ul style="list-style-type: none">  Attacker  Defender  Ball 	
<p>2. Cognitive Deliberation- Group discussion (reflection)</p> <ul style="list-style-type: none"> i/ What have you done as the 1st and 2nd defender? ii/ How did you feel about being successful/ unsuccessful in defending the attacking players? iii/ What was/were the key element(s) of defending the attacking players? iiii/ In what way and to what extent have you achieved to defend the attacking player? iiib/ What is key tactical position/movement(s) in applying the tactical concept? iv. What will be the key tactical movement for achieving the tactical goal? 		
<p>3. 2 vs 2 with one defending player retreating</p>		<p>(Discussion for effectiveness and efficiency)</p>
<p>4. 3 vs 3 with one defending player retreating</p>		<p>(Challenge by increase complexity)</p>
<p>5. 4 vs 4 with one defending player retreating</p>		<p>(With discussion)</p>
<p>6. Debriefing</p>		

Conclusion

It is hoped that teachers may find the framework beneficial in helping them to decide “why to teach”, “what to teach” and “how to teach”. On the whole, teachers have to aware that it may be too time consuming when involving students in the cognitive deliberation and reflection

process in figuring out the tactical solutions. It also requires them to adopt the mindset of being facilitators. The TGfU model is student centered and the responsibility of learning is shifted to students. It also provides students with opportunities in collaborative learning. Students are also expected to act as active participants in their learning process. On the whole, as argued by Theodoulides & Armour (2001), a PE program that places focus on pupils' cognitive learning would need to be accompanied by a significant change in thinking by many physical educators. It is the openness of teachers to put on trial the suggested framework that results in their confidence and ability to implement any new practices like TGfU.

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Capturing the Essence of Rugby through Game Sense

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Abstract

This paper is written from the perspective of an experienced rugby union coach and player and a beginning researcher on the application of 'understanding' approaches to coaching and focuses on the sport of rugby union. It draws on my own experiences of learning to play rugby union from childhood up to playing at elite level and coaching up to international level. Informed by the relevant literature on Game Sense coaching it discusses what a Game Sense approach to coaching has to offer for rugby coaches while identifying some of its limitations. In particular, it focuses on the notion of using modified games to learn how to play rugby. Reflecting upon my own experiences of playing 'pick up' games as a young boy, my experiences of being coached using games and my use of games in my own coaching I identify and discuss what I feel are the particular strengths of a Game Sense approach, for rugby coaching and how this can build on the important learning that arises from early experiences of games to motivate players and develop the intelligent play needed in a complex game such as rugby. The challenge for me as a coach and researcher is to investigate ways to maximise the use of Game Sense when designing the delivery of coaching sessions. By interviewing elite level coaches, information can be ascertained on the extent to which Game Sense is taken up and implemented.

Keywords: Games Sense, Ruby coaches

Learning through games

Many of my fondest memories of playing sport are those of playing hastily organised 'pick up' games with mates. My earliest memories of involvement in sport as a young boy are those of countless hours spent playing a range of informal games with friends. Typically we played games such as touch football (rugby), forcing back (a kicking game), British bulldog, soccer and fly with intensity and great joy until the sun went down or I was required to go home for dinner. It was in these games, organized and run by ourselves without the intrusion of adults that I enjoyed the most and learnt the most about how to play games. We modified games to suit the spaces and conditions we played in, the number of players we had at hand and our own ideas of what a good game was. Dwyer (2004) in his memoirs makes similar references to games played in his development years.

As I grew up I moved into more organised and increasingly more competitive sport and particularly rugby. This transition involved different experiences of learning how to play. It involved being coached in sport and adopting the role of the player being taught how to play

by the expert. It involved being told what to do, having adult ideas of training imposed upon us and far more structured learning experiences. This is not to say I didn't enjoy it because I did. I have many fond memories of learning to play rugby and of some great coaches that I respected immensely. Of course there was less motivation for the often-demanding drills that we had to do and far less ownership but I never questioned the need for these changes as I moved into a career as an elite level rugby player and left my childhood memories of games play further behind. Drilling and perfecting technique to become a better player was unquestionable for me. It was common sense. That is until my first exposure to Game Sense. After reading about it and talking to proponents of the approach the idea of learning to play sport like rugby through a games-based approach triggered some critical reflection upon the way I was coaching and the ways I had been coached all my career. It brought back the memories of the enjoyment and the skills and understanding I developed with my mates so long ago. As I read, talked and thought about the idea of coaching through modified games my interest grew. The possibilities for coaching in ways that were motivating and helped players develop perception, decision-making and tactical understanding excited me. I have since begun to incorporate Game Sense into my coaching and have begun to conduct research on the use of Game Sense in elite level rugby in Australia. This paper is, therefore, the reflections of an experienced player and coach informed by developing knowledge of Game Sense as a beginning researcher.

My next conscious consideration about the use of games in rugby coaching was while I was coaching Sanyo Rugby Club in Japan. Several of my players were Polynesian and were overweight. They had difficulty with the language and the cultural demands of training in Japan. In order to get them to reduce their weight and develop appropriate game related fitness the team played a selection of games closely mirroring Rugby. This resulted in a number of effects. Firstly the players lost a considerable amount weight, secondly they improved their fitness and thirdly they were compliant at training. At that time I had not heard of the term Game Sense. I was just trying to engage the players so they could reach their potential.

Reflecting on twelve years (1993-2005) of coaching experience with the Lloyd McDermott Rugby Development Team, which is an Indigenous Rugby program, I remember using games to motivate players in ways that resulted in greatly improved performance. Early in our existence we ran extensive training camps over a number of days but we found that our players lost interest when faced with long training sessions that were skill and drill based. They enjoyed free flowing games of touch rugby before training but did not carry that enthusiasm through into drills and skill sessions. When it came to playing full practice games or using touch football or any other game as part of warm up our players came alive and were far more motivated. We responded by using games as much as we could in training. We did not necessarily use a Game Sense approach with questioning but employed games as much as we could. Not only did the boys enjoy training more, they also improved rapidly. In 2000 our team won the World School Boy Tens (ten players in a team instead of fifteen) tournament using a combination of games and drills to prepare for the tournament. Given that a number of our player did not have a rugby union background this was an impressive achievement and we felt that the use of games played a big part in it yet, at the time, did not really understand how. This paper is a reflection of my recent experiences and preliminary study into the use of Game Sense.



The study and methodology

This study employed a case study approach by focusing on four rugby coaches working at elite levels in NSW and the ACT. As a former player and coach I had access to top-level coaches in Australian rugby.

The study investigated the impact that Game Sense coaching pedagogy had upon or influenced elite level rugby coaching in Australia and what factors are shaping its implementation. Using semi structured interviews, employing a number of focus questions and grounded theory, the views of the coaches were analysed. The following focus questions were used in the study. What are coaches' beliefs about good coaching? How have coaches' experiences of coaching as players shaped their attitudes toward Game Sense and the principles underpinning it? How have coaches' experiences as coaches shaped their attitudes toward Game Sense? What are coaches' experiences of using a Game Sense approach or game-based coaching?

The four case studies used a series of extended interviews conducted over a four-month period from July to October in 2005. The interviews were one on one, conducted at participants place of work and on one occasion at there place of residence. Grounded theory was employed to derive themes and theories from the real world experiences of coaches through the analysis of interviews. The initial interviews were between 45 minutes and an hour. These were followed up with two subsequent interviews which were designed to confirm theories, draw out new ideas and to test subsequent theories. The interviews were approximately one month apart.

Participants

Barry

Barry aged 65 is a previous national, state and first division coach. He has been a participant in the national coach education program and is a level 3 coach with the Australian Rugby Union. He has a background in engineering and has in recent times been responsible for a state academy. Barry has a passion for the game and was a willing participant.

Billy

A school teacher by training, Billy aged 42, retired from playing rugby five years ago and moved into coaching during that period. He has been a participant in the national coach education program and is a level 3 coach with the Australian Rugby Union. He moved into current position with the state after being an academy coach and a successful career coaching first division rugby.

Jack

Jack aged 36 is a tradesman by training and had a successful building business before completing sports coaching qualification at a tertiary level. He has been a participant in the national coach education program and is a level 3 coach with the Australian Rugby Union. He has represented at state and national level before the transition to coaching. Jack coached a first division team before taking up an appointment with a state based academy.



Simon

Simon aged 30 is tertiary trained in human movement and currently holds a coaching position with the national team. He achieved this after a long playing career at club level and coaching stints overseas in Japan and France. Simon was a successful Australian Institute of Sport Scholarship coach while still playing rugby.

What Games Sense has to offer Rugby coaches?

Player motivation

At an elite level working with the Australian Under 19's (1997 – 2000) the Head Coach Gary Ella always saw modified games as important component of training. The result was a group of motivated and engaged players through out a long preparation program for a major tournament or match.

During my time at Eastwood Rugby Club in Sydney as the Head Strength, Conditioning and Skills coach I witnessed how monotonous, high repetition training affected the desire of players. In 1999 after consultation with coaching staff we implemented a number of training sessions that were game based. It must be pointed that the majority of the players had already established a reasonable training base from previous years of training, however as a result of the games based training the players maintained a high level of fitness and eventually won the Sydney First (1999) Division Championship. Last of all it must be outlined out that the players were also required to complete resistance, agility and speed sessions in addition to the team based game training. An important additional consideration was that we did not see it as necessary to carry out fitness tests that year as we monitored players' responses to training and games. We would normally have periodised a number of testing dates through out the year to ensure fitness parameters were maintained.

Fun

One of the criticisms of traditional approaches was that technical instructional approaches were favoured and that at some levels of training players became bored and lost interest (Bunker & Thorpe, 1982; Bunker & Thorpe, 1986; Light, 2004a). Coaches in this study were aware of this and commented on the application of games as a form of social interaction and fun. Simply put in the first interview by Barry, "the other thing I find is people don't get nearly so tired when they're enjoying themselves", when asked about the fun element and the use of in training. Simon made the same observation:

Yep. Firstly, at the start of the session. It can be used for I suppose social, so in so far as a game of dummy touch football at a certain stage of the game where there's the fun factor. (Simon, Interview 1, 15/07/05)

Engagement

The advantages of using Games Sense or games training is that players are engaged to a deeper degree with their learning environment, are motivated and can employ skills at the same time as making decisions about tactics. (Light, 2004a) Billy thoughtfully observed that strength of Game Sense was learning at a non conscious level, "It's repetitious practice that

becomes embedded in their subconscious and then they become subconsciously competent without fear". This implies that a drill approach would not engage a player for a long enough period of training time for them to develop the skills subconsciously. This engagement during practise is important from a coaching point of view because you want players to develop the skills, tactics and strategies that become an automatic response in a game. The idea that subconscious learning takes place also adds to the concept of implicit learning which was mentioned by coaches in the study. That Game Sense or games training offers an opportunity for players to learn in a way that is not usually evident in a traditional technical approach.

Application of skills

Coaches viewed games as an avenue to test whether players had mastered predetermined skills which had been taught in training sessions.

We use games, games are probably the litmus test of their transition between block skills into whether they can actually apply those block skills. I think it means that players have to read cues. So, they start to become programmed to cues that you can't actually teach inside a block or a blocked drill (Simon, Interview 2, 24/08/05)

Here Simon recognises the importance of perception at picking up cues but only sees the need to introduce game like contexts once the skills have been mastered.

Independence, perception and decision making

Player independence can only occur, in my opinion, which is also supported by (Kirk & MacPhail, 2002), when players can perceive information and make a decision, this can be both a conscious or unconscious reaction. Drills based training does not allow this to occur because the pressure and dynamics that occur in the game are not present. The drill is practise in isolation. In my first interview with Barry I was motivated to explore other options when he made this observation. "I think we have to play intuitively. In rugby you can't think your way through the action side of the game". In terms of the role Game Sense plays in this learning Barry saw this as a way to improve players' reactions or instincts.

So, by playing games, especially training games, where the result is not terribly important, people can play with an open mind and I think that's a really important thing. I think that – I don't know if everyone understands the same thing I'm thinking of when I say open mind, but you have to play with your mind vacant. You have to play with your conscious mind vacant to enable information to rocket through it quickly and transfer to action. (Barry, Interview 1, 28/07/05)

Player independence is an important attribute and coaches should be able to instil this as a trait so that players can make decisions on the field without hesitation. To enhance this approach coaches can use questioning. In this study coaches saw questioning as a positive approach and an opportunity for clarity and chance to discuss options. Billy's response is typical of the responses from coaches:

Probably if they make a mistake, rather than tell them what the mistake is generally to go through a questioning type situation to see if they can actually come up with the answer without belittling them. But essentially I do try and play devil's advocate a little bit and say, what if or, you know, how what and I (Billy, Interview 2, 25/08/05)

Here Billy seems to be referring to questioning used in a similar way that is used in Game Sense. Rather than tell his players he wants them to think and come up with answers. Although Billy and the other coaches do not use Game Sense pedagogy their coaching seems to be influenced by the same ideas that shaped the development of Game Sense. It can be argued that by using the inquiry approach it opens up options for coach player dialogue that facilitate independence and decision making.

Fitness, Transfer and Specificity

One of the areas reported by other coaches in previous studies has been the use of games to develop the fitness of players. (Light, 2004a) It has been argued that games can more accurately mirror the requirements of rugby. This facet of Game Sense or games training interests me and in the past when I was coached, games were often seen as inappropriate, diversionary or a waste of time. However coaches as seen in this study now see real benefits in that games and fitness are closely related.

I think there has to be a connection between practise and fitness. If there's not we've got to devote more time. Now, for the best use and the most efficient use of time, we should do it and I know we can do it, from experience, therefore you must do it. Now, I find that game playing is a fantastic way to get fitness if you ensure that the rules of the game command it. (Barry, Interview 2, 25/08/05)

Barry went on to explain that the games need to be monitored so that players work off the ball in order to get the maximum amount work out of the session.

The only thing you have to be aware of is some guys will not do any work. So, you've got to pick them out and say I'm okay with this, but you know you're going to be running rep 400's because you're not doing anything now. (Barry, Interview 2, 25/08/05)

The specificity of training has become an important concept in the preparation of rugby teams. Coaches' see Game Sense or games training as providing a degree of transfer from the training pitch to the game.

Limitations of Games Sense in Rugby

There are however limitations or challenges when using Game Sense in coaching. It is often difficult to see improvements as a direct result of Games Sense and its application appears messy. Coaches when using Game Sense are required to take a guided discovery or problem solving approach which is a departure from the normal directive teaching position. (Cassidy, Jones, & Potrac, 2004) This way of coaching can create difficulties as some coaches feel they have lost their control over the session. (Light, 2004a)



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The use of questioning is pivotal to the application of Game Sense. (den Duyn, 1997) This is one area from my study that is not fully understood by elite coaches in rugby. The use of questioning is usually conducted at the end of a session or game. Coaches feel the demands of coaching prevent this from occurring. (Light, 2004b) There is a perception created by the new professionalism of rugby where players are viewed as a human resource which needs to be cultivated. This expressed as a demand on coaches. Jack in the third interview describes the environment in which a coach operates:

Even though we have professional players we only have a limited time to coach them. The game is very technical now and to ask questions (of players) all the time may reduce the real time we can coach. (Jack, Interview 3, 21/10/05)

There is a limited amount of time for training and coaches have to maximise their use of time to ensure efficiency and effectiveness therefore the use of questioning may not receive the attention that it deserves.

Coaches still maintain a central position in the relationship of learning when it comes to coaching. There has not been a dramatic shift to athlete-centred learning although a number of coaches recognised the importance of implicit learning, subconscious learning and that players have different learning requirements.

Conclusion

Game Sense was developed as an alternative to the traditional technique approach and focused on developing player's game awareness and skills at the same time. The challenge in elite rugby coaching and the implementation of the Game Sense approach with senior or elite players hinges on a number of key issues. Firstly the acceptance that senior or elite players have already developed the core skills and tactical knowledge used in rugby through practise and experience over time. The further development of Game Sense at the elite level of coaching is supported by Rick Charlesworth former coach of the Australian National Women's hockey when he states, "the Game Sense approach is relevant to the ongoing development of elite players." (Kirk, 2000)

Secondly, in my opinion Game Sense has not been fully explored or understood in coaching. This could be alleviated in the future by better dissemination of ideas through coach education programs where attention could be paid to the area of learning as discussed by authors such as Davis, Sumara, and Luce-Kapler, (2000). Woodman, (1993) pointed out that pedagogical approaches in coaching effectiveness have been difficult issues to embrace in Australian coach education programs. This is possibly why the rugby coaching pathway and accreditation programs are coach centred not player centred when it comes to establishing the coaching environment or determining pedagogical priorities. This is partly due to the technical and safety considerations that are unique to rugby which need to be addressed through directive instruction.

Some coaches identified the need to contextualise training and allow players the opportunity to react independently but there is still an emphasis on structured training at this level. Although there is a need for structure a number of coaches see the potential of Game Sense with the use of questions, for areas such as instinctive responses, subconscious learning and



implicit learning. These views indicate that coaches appreciate or understand some elements of complex learning.

As the changing face of Australian society is reflected in the decrease in physical activity of young people I am encouraged by the words of Bob Dwyer former Australian Rugby World Cup winning coach. In his memoir, Dwyer (2004) postulates that many champion Rugby and Rugby league players had skills and strategies honed through playing games. He makes the following observation:

Those seaside games, whether touch or tackle, were great fun and a priceless introduction to the challenges and opportunities of the Rugby codes. It may not have been apparent to the casual observer but what was occurring in those Bronte battles was akin to a hothouse of rugby learning where theory, experimentation and understanding were constantly analysed on the scorching summer sand. So much of Australia's sporting culture as evolved from these pick up games played on beachfronts or in public parks. It still happens today: a few mates get together after school and link up with a mob of others, introductions are made and a game is under way.

The challenge now is to extend the use of Game Sense past just its use for testing skills and tactics, motivating players and improving fitness to point where it is accepted as pedagogical approach to coaching. It is acceptable for coaches to stand back and allow players to learn from their involvement in the practise environment. Further research is required to see how "understanding" approaches can be developed in elite level rugby.

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The Integration of Teaching Games for Understanding into the Undergraduate Bachelor of Sport and Recreation Programme at the Auckland University of Technology: Construction and Implementation of a Rugby Union Seven-a-Side Coaching Session

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Introduction

In 2004 the Division of Sport and Recreation, Faculty of Health revised the sports coaching stream papers with the goal of providing students with a continuum of coaching papers from Certificate to Post-Graduate study. The major point of difference in the application of these papers has been the delivery of teaching games with move towards a Game Sense for Understanding (TGFU) framework.

This change has had immediate implications for the student coaches when delivering coaching sessions. An important learning outcome of the TGFU approach is the development of cognitive capabilities. The six step model presented by Bunker and Thorpe (1982) describes a process for developing appropriate decision making and improving game play performance. The game sense approach places a different focus on the teaching/coaching of games. The focus of the model is placing the student coach in a game situation where tactics, decision making and problem solving is critical.

This new approach (for many of our Bachelor of Sport and Recreation students) has proved to be challenging for the student coaches, as in the majority of cases these students have been exposed to the traditional skills or technique bases approach. In particular, they struggle to understand the implications of this change of emphasis and hence devise suitable coaching lesson plans.

As educators the challenge is to find ways to motivate and support student coaches to research and construct effective learning orientated (cognitive) coaching lesson plans. The desired outcome enables student coaches to appreciate the links between games and to improve their own game coaching performance.

The workshop will emulate the TGFU model presented by Bunker and Thorpe (1982) in light of cognitive research and provide a Rugby Union Seven-a-Side coaching lesson plan. While the coaching lesson will focus on evasion techniques the workshop will demonstrate how the model may be modified to accommodate various cognitive objectives. The steps in the model follow the TGFU progression:

1. Game
2. Game Appreciation
3. Tactical Awareness
4. Decision Making
5. Skill Execution
6. Performance



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In addition the cognitive process will help to identify the importance of perceptual skills as part of the learning skills. Athletes will be asked to identify the moves, see the patterns and to see the opportunities as they develop.

Coaching session plan (Exemplar)

An important learning outcome of the Teaching Games for Understanding approach is the development of cognitive capabilities. The six step model presented by Bunker and Thorpe (1982) describes a process for developing appropriate decision making and improving game play performance. The game sense approach places a different focus on the teaching/coaching of games. The focus of the model is placing the student coach in a game situation where tactics, decision making and problem solving is critical.

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Rugby Seven-a-Side Game Sense Lesson Plan

Aim: *Tactical problem, movement & skills in rugby*

Tactical problem: principles of attack

Off- the-ball movements: supporting the ball carrier

On-the-ball skills: catching, picking up the ball

Lesson 1.

Tactical Problem: Going forward – gaining territory

Lesson focus: Evasive running, passing long & short, and kicking

- Objectives:**
- Present target to passer
 - Ball in two hands
 - Position ball away from defender
 - Use quick accurate passes

Step 1: Game
& **Step 2:** Game
Appreciation

Warm up (15 – 20 minutes total)

Ball Tag:

Using 20-m x 20-m area. Two teams jump for the ball. The object is to get six passes between team members before they can tag a team member from the opposition. If the ball is dropped or intercepted the ball goes to the opposition.

Increase the size of the area once the game gets under way. Increase or decrease the number of passes before a tag is made - dependent on the ability level of the group. The ball can only be passed, i.e. no kicking.

Once a tag has been made all teams members run back to their baseline and line up on either the right hand side or the left hand side of the goal. Points are awarded for the number of times a team makes six passes. Makes a tag or is the first to line up. The first team to ten points is the winner. There is time repeat the activity and change the constraints (conditions). Play two innings.

Dynamic Stretching (10 minutes)

Light aerobic activity (dependent on activity level from ball tag)

- Sideways, backwards, down and ups
Progressively more intense dynamic exercises designed for arm & shoulder region, lumbar & dorsal regions, abdominal and legs:
- Butt kick, lunges, leg swings, arm circling
Functional skill activities, (sport or game based). Unit skills or sub group.

A. Game	2 v 2 10-m x 10-m possession game
Goal:	Pass as often as possible, to catch the ball so that the game can be continued
Conditions:	Complete ten or more passes before kicking to partner Restarts by team that does not drop the ball or has not achieved the set number of passes.

Step 3: Tactical Awareness

Questions:

Q: What is the goal of your game?

A: Pass as often as possible

Q: What did you and your team mates do to be successful?

A: Make quick & accurate passes. Catch the ball under control. Move to an open space.

Q: What did you or your team mates do to keep the defense from intercepting the ball or blocking your pass?

A: Run towards the defender. Position the ball away from defender. Change direction of the ball by veering away into the outside space. Accelerate to take advantage of the defender's hesitation.



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Q: Did you use any signals to let your team mate know that you wanted to receive the pass?

A: Hold hands as a target up or out to let the passer know where to pass the ball.

Q: When you were catching the ball, where should your head, eyes and hands be?

*A: Head and eyes focused on the passers hands (release point) and hands and palms extended away from the body in the direction of the pass, fingers making a **W** (smiley face).*

Q: Once you received the ball, what was the best way to hold it so that the defense didn't know whether you were going to pass, run or kick?

A: Hold hands up as and away from your body thus allowing you to flick the pass quickly using your wrists and arms, hold out front so as to deceive which direction you are going to run and or to drop onto the foot to kick.



Step 4: Making Appropriate Decisions. What to do, how to do it.

Figure 1. Holding the Ball in Two Hands

The photo shows the different offensive decisions a player has while being guarded up close. Notice that the player has both hands on the ball and looking for support. A player must be composed & knowledgeable enough to make split second decisions about who to pass to and when to pass.

Q: Do we have any teams that were able to obtain 10 passes then kick every time that they had possession of the ball?

A: If not, we should practice maintaining possession so our team will have more opportunities to score points (10 passes) and then be able to kick.

B. Practice Task:

With a partner, practice evasive running in possession of ball. To practice beating the man, one on one.

Goals: To evade opponents while running without becoming isolated
Perform side step and /or swerve, beat partner by sheer pace, change of pace.
Use feint and then swing away executing the swerve.

Cues: Ball in to hands, run towards defender, change pace ... and / or direction of movement, position ball away from defender, accelerates into space.

Step 5: Skill Execution



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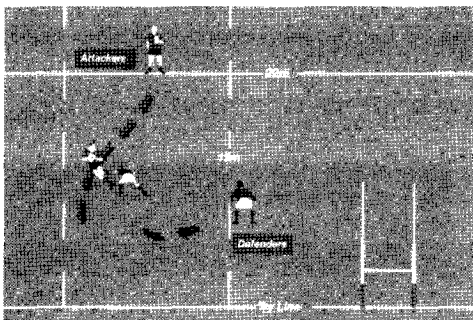


Figure 2. One v One Evasive Drill

Key Coaching Points

Alternate both sides of the field.
Nominate whether the defender will use a two-handed touch or tackle.

Variations:

Change angles / increase the number of players.

- C. Game:** 2 v 2 evasive touch-down game
Goal: Evade defenders and touch-down as often as possible
Conditions: Working in areas of 22-m x 15-m grids. Maintain possession of the ball by providing a target for the passer, receiving ball and evade the defenders by performing a side step or swerve. Beat defenders by sheer pace, change of pace and quick accurate passing.

Step 5: Skill Execution

- D. Practice Task:** With a partner, practice evasive running in possession of ball. To practice beating the man, one on one.
- Goals:** To apply pressure and or regain possession by kicking the ball along the ground in space just behind the opposition, or just over the line of defence. Perform fend, grubber or chip kick.
- Cues:** Hold ball in to hands, run towards defender, looking for space behind the defence place kick. Strike the ball with the top of the kicking foot (chip) and laces instep for the grubber. Head down and eyes on the ball. Use short follow through and look to regain the ball. When using the kicks, regaining ball is paramount.

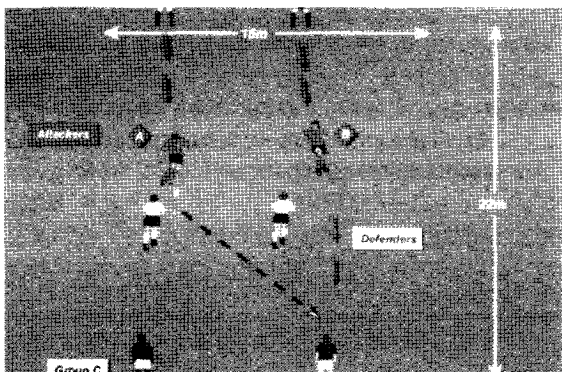


Figure 3: Two v Two Kicking Drill

Key Coaching points:

Put ball between defenders if a grubber and over players if a chip kick. Assess options each time.

Variations:

Increase the number of players.

- E. Game:** 3 v 3 evasive touch-down game
Goal: Evade defenders and touch-down as often as possible
Conditions: Working in an areas of 22-m x 15-m grids. Maintain possession of the ball by providing a target for the passer, receiving ball and evade the defenders by, performing a side step or swerve. Beat defenders by sheer pace, change of pace, a fend, grubber or chip kick and quick accurate passing.

Step 5: Skill Execution

Questions:

Q: What is the goal of your game?

A: Score as often as possible by beating the defenders

Q: What was the most common way of beating your opponents?

A: Quick accurate passes.

Q: What is the suggested way to receive a pass?

A: Chin up, eyes open. Move onto ball straight. Extend hands towards ball (finger spread). Watch ball into hands and then chose best option.

Q: What should you do when putting a grubber kick through?

A: Kick the ball only a short distance and try to spiral the ball end over end. Attempt to contact the ground in front of the kicker by less than 2-m. Kick behind defending players with toe downwards

Q: How do you stop getting your kick charged down?

A: Ensure that you don't get too close to your defender before you kick

Q: When is a fend / push off most effective?

A: The fend is most effective if the tackler gets within a arms length because this allows the ball carrier to exert force to either push the tackler way or to knock away the arms as the tackle is attempted.

F. Action Fantasy Game

Step 1 Again: Back to the Game

Scenario.

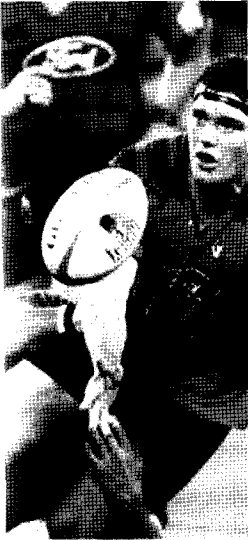
The Canterbury Crusaders are playing the ACT Brumbies in the final of the Rugby Super 12. The Crusaders were leading 24 -19 at the end first of the First half but were almost undone by the Brumbies captain Stirling Mortlock's accurate goal kicking.

With the Brumbies now leading 35 – 34, play has been suspended due to a serious injury. When the players resume their game in five minutes time they must get back into the swing of things quickly. With 5 minutes left to play, the Brumbies want to continue their comeback while the Crusaders will need all their composure to gather the chip kicks and halt the Brumbies attacking skills and re-establish their lead. They want to obtain a 7 point buffer.



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After 5 minutes of practice, finish the game.

Both teams go back to their end of the field and decide what strategies to use to accomplish their goal. They practice and then come back together to play out the final minutes of the game.

G. Cool Down and Conclusion

Light aerobic activity – walking light jogging
Static stretching all major muscle groups – hold end range for up to 30 seconds

Hydrate

Restate the objectives of the coaching session highlighting the key teaching points from both the game sense situations and the skill practices. Ensure that the students/athletes understand the key points and can recall them with prompting from the coach.

Notes: The questions, while being prepared, are not asked because they appear in the lesson plan. They show that the student coach has thought about teaching and coaching aspects of tactical play. When the situation/s arises during the coaching session then it is up to the student coach to stop play and to ask the questions. That may involve all players or it may only involve the 2 to 4 players at that activity. If it is a key learning/coaching point/s and the majority of the players are making the same error/s, then it is best to stop all the players and introduce the coaching point/s.

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Teaching Games for Understanding: An Alternative Approach to Teach Tae Kwon Do (Free Fight)

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Abstract

Nowadays, Tae kwon Do (TKD) becomes more popular in Hong Kong. Quite a number of primary and secondary schools organize TKD training courses for students as extra-curricular activities. According to many coaches' observation and opinions, the author noted that the drop out rate is also quite high and boredom might be one of the main reasons why students withdraw from training and learning of TKD. In this project, Teaching Games for Understanding (TGfU) was adopted to teach TKD. Two groups of TKD junior students, which include 15 each, are randomly selected for the experiment. One group was taught by a coach using direct teaching method and the other was by the same coach using TGfU approach. After six lessons, the results indicated that there is a significant difference between two groups in terms of enjoyment of TKD free fight. Also, it is found that the enjoyment is direct proportional to their interest of future participation.

Keywords: TGfU approach, Tae Kwon Do, Enjoyment, Future participation

Introduction

Tae Kwon Do (TKD) is a kind of martial arts in Korea and it has been disseminated all over the world. In American schools, students' interest in martial arts has grown in the past two decades (Winkle & Ozmun, 2003). Similarly, it also becomes more popular in Hong Kong. Quite a number of primary and secondary schools have TKD training courses for students as extra-curricular activities and inter-schools competitions are held every year. Its popularity might be due to the fact that it can enhance students' health-related fitness, performance-related fitness, self-concept and esteem, and cognitive abilities.

However, many students show strong interest to participate in at the initial stage. Some of them especially teenagers attend TDK training courses for only a few months or are awarded a certain initial levels. Subsequently, they withdraw from training. It is noted that the leaving rate is quite high (SDB, 2002). According to many coaches' observation and opinions, boredom is one of the main reasons why students leave the training. This is what Kim (2002) indicated that boredom is the biggest enemy for a martial arts practitioner.

TKD can be divided into three parts, "kicks" and "punches skills" ; "forms" and "free fight". The most interesting part is "free fight" because it allows body interactions between participants and it has a lot of variations in between the games.

Nowadays, the author observes that many TKD coaches adopt direct teaching method to teach "free fight" in which it causes boring. It is understandable that TKD involves skills and techniques training. Direct teaching method is assumed to be more effective. It is therefore many coaches have no intention to change their teaching approaches. Furthermore, it is extremely difficult to change their mindset to accept other teaching methods.

Teaching Games for Understanding (TGfU) is an innovative teaching approach of ball games. The emphasis is on teaching the game itself and its tactical awareness. Techniques will be taught whenever necessary. One of the advantages of this approach is to promote students' "enjoyment" to learn the games. In this project, the objective is to adopt TGfU to teach TKD teaching. It is hoped that TGfU will become an effective alternative approach to teach "free fight" of TKD so as to provide enjoyment to students during their training and will actively participate in practicing TKD in the future.

Literature review

Games have been a major part of most physical education programmes, often constituting a majority of time in physical education curricula (Holt, 2002). In Hong Kong, Liu (2005) also indicated that nearly 1/3 of the PE curriculum is related to teaching ball games.

Bunker & Thorpe (1986) observed that much games teaching and coaching was dominated by the development of techniques within highly structured lessons. They also indicated that in school physical education, the development of techniques took up the majority of lesson time with little time left to actually play the game. Even when game play was included in lessons, teachers and coaches rarely made connections between the technique practices and how and when these techniques should be applied in game play (Kirk & McPhail, 2002).

An alternative approach to learning in ball games that attempts to address these key issues is a TGfU approach. This approach emphasizes game appreciation and tactical awareness as a basis for making game play decisions, and meeting skill development needs (Cushion, 2002). The TGfU model embraces differential development and allows learners to work at their own rates. The model employs constructivist theory about learning and knowledge, and within this context, students are encouraged to construct their own cognitive maps, as they create relationships amongst classifications and games (Butler, et al 2003). It is full of fun, even for students with less ability, who can be easily turned off and made to feel less competent by a technique-oriented approach (Butler; Griffin, et al 2003).

According to American classification, TKD practice is typically divided into four areas: fighting techniques, forms, sparring and self-defense (Lawler, 2001). However, it is slight different in Hong Kong and self-defense is not included. Fighting technique is represented by "kicks and punches skills" and sparring means "free fight". In freestyle sparring, practitioners perform different techniques against an opponent, with the intention of scoring a point. Partners move back and forth (usually within a circumscribed area and called "the ring") exchanging techniques and trying to block, avoid and counter one another's movements (Lawler, 2001). Forms (called "hyungs") are pre-set patterns of techniques and other movements that practitioners memorize. Depending on the style of TKD that practicing, the practitioner might learn a new form every month or two until practitioner achieve at black belt level (Lawler, 2001).



Drills are normally the major focus of teaching TKD. Students are firstly taught with conditioning of the body, and then followed by repetition of basic movements, drills of free fight under closed situation and finally doing some stretching. The above practice will lead to boredom since students are instructed to learn the techniques in a repetitive way. Kim (2002) reflected that boredom is the biggest enemy for a student and even coach of TKD. Coach should always adopt new teaching ideas, drills, games, exercises and techniques to teach students in order to maintain their interest to learn and teach. It was suggested that a coach should be more creative and receptive of new ideas.

Methodology

In this project, all participants were students of TKD training courses organized by Hong Kong TDK Association. Two groups of 30 students (males & females) aged 10 to 16 were randomly selected to take part in this survey. They were junior TKD students achieving at the level between yellow belt to green-blue belt and with less than one year of TKD training experience. They had limited knowledge of TKD and training of “free fight”.

Both groups with 15 each attended six lessons, lasting for one hour each. Group A was the control group and students’ were taught the “free fight” by direct teaching method (traditional method). Group B was the target group and they were taught “free fight” by TGfU. The lessons were focused only on the tactical aspect of “free fight”. No kicking skills or forms would be taught. Six TGfU lesson plans were prepared for the coach who was awarded black belt six dan. These two groups were taught by the same coach.

The procedure of the TDK lessons used in this study consisted of:

- a. 5-10 minutes warm up period during which non-TKD activities were performed.
- b. 5-10 minutes period after the warm up in which TKD fundamentals (punches, blocks, twists, etc) were performed individually, in pairs and groups.
- c. 35-40 minutes period practice free fight through games and tactical awareness were practiced including different games, competitions, random attack and defense, respectively. Students are encouraged to add creative elements into practice, visualization of good performance and video training.
- d. 5-10 minutes cool down period

After finishing six lessons, students were invited to fill in a questionnaire to collect their feedback on enjoyment, interest, feeling and intention about their further participation. In total, there were two parts. The first part consisted of 14 questions and the second part was related to their intention to take part in TKD in the future. The questions were in English and to avoid misunderstanding of the meaning of the questions, coach was invited to explain each question. Therefore it was assumed that all students should understand explicitly the meaning of the questions. Data were collected and analysed by using the Independent-Sample t-test of SPSS to compare the means of two different teaching approaches and Factor Analyses using the Principal Component Extractions method was also adopted to calculate correlations between students’ feeling and future participations in lifelong activity. Statistical significance was set at $p=0.05$.



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Results

By using the Independent-Samples t-test of SPSS, the means of each question of group A (Control) and Group B (TGfU) and mean difference between two groups are calculated in Table 1. For each question, the highest score is 5, meaning more agree with that question and the lowest is 1 meaning more disagree with that question. For example, in question 1 “I enjoy it”, the mean of Control Group is 2.53 but TGfU Group is 4.00. The difference indicates that the TGfU Group is comparatively more enjoyable than the Control Group in practicing “free fight” of TKD.

From the findings of the mean difference between two groups, the TGfU group has indicated very positive responses towards this new approach such as, students enjoy it (Question 1) ; find it pleasurable (Question 4) ; feeling good (question 8) and the TGfU approach gives me energy (Question 6) ; is very exciting (Question 11), respectively. They are also evidenced by the results of mean difference between two groups which has shown significance at $p < .05$ level except Question 6 (Mean Difference 0.33 at .109 level of significance).

Question	Group	Mean	The Mean Difference between Group A & B	Level of Significance (Two-tailed)
1. I enjoy it.	A	2.53	+1.47	.000
	B	4.00		
2. I feel bored.	A	3.67	-1.40	.000
	B	2.27		
3. I dislike it.	A	3.40	-2.00	.000
	B	1.40		
4. I find it pleasurable.	A	2.73	+0.93	.000
	B	3.67		
5. It is no fun at all.	A	3.53	-1.60	.000
	B	1.93		
6. It gives me energy	A	3.07	+0.33	.109
	B	3.40		
7. It makes me depressed.	A	3.00	-0.53	.020
	B	2.47		
8. It's very pleasant.	A	2.53	+1.47	.000
	B	4.00		
9. My body feels good.	A	2.67	+0.47	.017
	B	3.13		
10. I get something out of it	A	2.73	+0.53	.033
	B	3.27		
11. It's very exciting	A	2.73	+1.47	.000
	B	4.20		
12. It frustrates me.	A	2.60	-0.53	.038
	B	2.07		
13. It's not at all interesting	A	3.47	-1.27	.000
	B	2.20		
14. It gives me a strong feeling of success.	A	2.53	+0.80	.001
	B	3.33		

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Table 1: The Mean Difference between Group A (Control) and Group B (TGfU)

For future participation, the mean showing intention to take part in practicing TKD in the future is 2.73 out of 5 (SD .961) in group A whereas Group B has got the mean of 4.00 out of 5 (SD .655). The mean difference between two groups is -1.27 (Table 2).

Group	Subjects	Mean	SD
A (Control)	15	2.73	.961
B (TGfU)	15	4.00	.655

Table 2: The Mean of Showing Intention for Future Participation in TKD between Two Groups

In order to study the correlations of students' enjoyment and their future participation, the Factor Analyses using the Principal Component Extractions method is adopted to extract 11 relevant questions out of 14 related to enjoyment. By using the Independent Sample T Test, the result indicates that there is a significant difference of .802 ($p < 0.05$) between Group A and Group B.

Discussion

Under the education reform and advocate of developing students' multi-talents policy, Hong Kong elementary and secondary school physical educators have incorporated a variety of lifelong fitness activities into their curriculum. These new activities are both exciting and stimulating for their students as well as non-traditional for physical education classes such as wall climbing, challenge rope course, bowling, martial arts (Tai Chi, TKD, Karate), respectively. Martial arts can enhance students' health-related fitness, performance-related fitness, self concept and esteem, and cognitive abilities (Winkle & Ozmun, 2003). Toskovic, Blessing and Williford (2002) reported that adults participated in TKD exercise programme from which the cardiovascular function, weight control and weight loss are improved. Other studies involved children and adolescents participating in martial arts have shown improvements in muscular strength (Falk & Mor, 1996), flexibility and balance (Violan, Small, et al, 1997), and anaerobic power (Melhim, 2001).

Additionally, participation in martial arts programmes has also enhanced various positive psychological attributes. Parents and adolescents noted that the most important benefit of martial arts is to increase children's self-confidence (Boudreau, Folman & Konzak, 1995). In a recent study, Toskovic (2001) indicated that adolescents participating in TKD significantly improve their tension, depression, and anger scores.

In extracurricular programmes, TKD is one of the popular activities in many school sectors. Although there are benefits in participating in TKD activity, the drop out rate is very high after practicing a period of time (SDB, 2002). It is reported by the coaches that one of the reasons of high drop out rate is due to boring of the TKD course. Bycure & Darst (2001) reported that students don't really care why it is good for them to do a certain activity though they are concerned only about how it applies to them personally. How to encourage students to become actively involved in the practicing session is very crucial for the coaches. Capturing students' attention requires session planning that connects to their interest (Bycure & Darst, 2001).

However, delivery of the subject matter plays a key role in the success of a TKD course. No matter how interest the subject matter is, the practicing session will fail and students cannot learn properly when coach delivers it in a strict and direct way (Liu, 2006). How to deliver “Free fight” of TKD interestingly is an issue related to teaching approaches.

From the finding in this study, the TGfU group has indicated that they enjoy the TKD practicing sessions which are full of fun and exciting. The mean of the TGfU group is 4.00 whereas the Control group is 2.53 with mean difference of 1.47. The problem is the TGfU group practices TKD with games and tactical awareness in which the delivery approach is very lively and full of fun. The students could practice TKD with various games, attack and defense with tactics and creativity. It is entirely different from the drill and repetitive teaching approach which put emphasis on practicing TKD poomse (a series of movement sequence). The purposes of the poomses are practicing in technical skills. They are the essence of TKD and are relatively complex consisting of blocking, punching, and kicking techniques as well as twisting, leaping, turning, and jumping movements performed at high intensity and including a number of pauses. In the practicing sessions, students are required to practice all these skills for numerous times without any other varieties. Eventually, they will feel bore and lead to withdrawal from the practice.

Most Hong Kong people are interested in sport. Participation in exercise programmes has become a very popular leisure activity. Research show that some two-thirds of newspaper readers regularly read the sports pages and live broadcasts of sports events have high viewing rates (HAB, 2002). However, this is not the case when it comes to playing sport. Most Hong Kong people are reluctant participants. A recent survey done by the Hong Kong Sports Development Board in the years of 1996 to 1999 indicate that less than half of Hong Kong people over the age of 15 take part in sports activities (SDB, 2002). Additionally, in a survey conducted by the Baptist University also report that only 14.8 % of men and 13.9% of women exercised at least twice a week and for more than 20 minutes (SDB, 2002). The reasons for such low participation rates include lack of time, pressure of study, having little interest and enjoyment, respectively.

In this study, the result indicates that there is a significant correlation between enjoyment and future participation in TKD. It implies that students enjoy practicing TKD by using the TGfU approach and show strong will to continue practicing TKD in the future. But, the control group reports that they gain little enjoyment in practicing TKD taught by the drilling approach and they will eventually withdraw from the TKD in the future. The above finding is matched with what Ryan et al’s survey in 1997.

Ryan et al (1997) indicated that people whose participation was motivated mainly by competence in skills of that particular sport activity and enjoyment as primarily having an intrinsic focus. Frederick and Ryan (1993) conducted a study on 376 adults to examine motivational differences between two groups in which one group was practicing individual sport activity and the other performing fitness exercise. The results showed that people who participated in individual sports were motivated more by interest and enjoyment while those involved in fitness exercise were driven by body-related motives.



Conclusion

In conclusion, TGfU approach can be served an alternative approach to teach “Free fight” of TKD in which students gain enjoyment from practicing it. Students also reflect that they will continue to participate in it in the future. For the benefit of students and to promote TKD in Hong Kong, it is recommended that the TKD Association and coaches have to re-think their coaching strategies to students.

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Promotion of Physical Fitness in Schools – Implications on the Chinese Culture

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Abstract

The President Council on Physical Fitness was founded in the US in 1958 with an objective to improve the physical fitness of school children. The recent recommendation from the US Surgeon General Report (2002) indicated that most Americans failed to exercise 30 min per week. A recent study (Fu, 2001) with the Hong Kong population supported this observation, suggesting that 60-67% of the general population was sedentary, exercising less than 30 min/week. However, we also noted that the perceived importance of an active lifestyle was low in secondary school children – 15% (Fu & Hao, 2003), indicating that primary preventive and intervention programmes should be recommended for children and the general public. The paper would discuss the promotion of an active lifestyle in the Chinese culture and the challenges ahead.

Keywords: Active lifestyle, Physical activity education

Introduction

Despite efforts by many countries to improve the physical fitness of children during the past 40-50 years, they were met with little success. Obesity has become one of the major health risks in developed and developing countries and quality of life has hence deteriorated. The US Surgeon General Report (2002) recommended the general public to walk 30 min each day as a start toward a more active lifestyle. In Hong Kong, 60-67% of the population was sedentary, exercising less than 30 min/week and prevalence of child obesity was increasing at an alarming rate. Thus, primary prevention programmes must be planned for children and the school would be the best place to initiate these programmes.

Physical fitness

If we apply Harrison Clark's definition of physical fitness, most children are fit because they appear to have endless energy and are always eager to play. However, some might be overweight and obese due to diet and parental influences but these can be modified. We also found that children's attitude towards physical activity declined with age. In Hong Kong, in a survey of over 25,000 school children, it was found that primary schools children have positive attitudes towards physical activity but as they grew older, it became neutral (Fu, 1993). Recent studies found that the prevalence of obesity among Hong Kong 7-16 years old

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children was quite alarming – 27 to 30% (Sung et al., 2001). The close association between obesity and mortality led World Health Organization to define obesity as a disease (1998). It was suggested that increased affluence would also increase the likelihood of an unhealthy diet that in turn contributed to the development of obesity. It was thus obvious that the role of the parents is important in the prevention of child obesity – they should be better informed and take a proactive role in this endeavour.

For children with a normal diet, they are naturally fit but this might not continue after puberty when other socio-cultural factors such as peer pressure, academic pressure, and economical considerations are more relevant. Physical fitness testing has been conducted in local schools for over 40 years but some might have a negative impact on the children if teachers regarded physical fitness test items as an end rather than as a mean. New test items that are more sports related should be developed in the form of games and physical activities. Children will most likely engage in physical activities that they are interested, are successful and have fun in the process.

Active lifestyle

Hong Kong children (8 to 12 years) were reported to have very low levels of habitual physical activity – 76% did not have 10 min when their heart rates were over 139 bpm in a day (Macfarlane, 1997). Fu and Hao (2003) found that 62% of girls and 45% of boys aged 12-14 years were inactive (exercising less than 15 min twice/week). Similar results were observed with 15-18 years old girls but some improvements with the boys. Lau and Leung (2003) found a significant relationship between parental attitudes and experiences towards physical activity and their children's physical activity involvement.

Johns and Ha (1999) found that physical and social environment affected the level of physical activity of 6-8 years old children. Cheung (2002) identified five motives for 6-20 years old athletes in school competitions namely, skill development, fun, team spirit, excitement and affiliation/friendship. Chan et al. (2003) reported gender specific in the choice of sports as well as time spent in sports. Boys preferred basketball and girls liked volleyball and the latter also spent less time in physical activities than the boys.

Most studies reported that the over-nutritional diet in Hong Kong increased the risk of coronary heart disease among children. Restriction of dietary fat without an improvement in physical activity might be inadequate in developing better health among children (Leung et al., 2000). Yu et al (2002) found that obese children (12-18 years) participated less (30%) in physical activity than normal children. Fung and Yuen (2003) found that 85% of 15-18 years girls desired to lose weight.

In recent years, local researchers have identified and investigated factors influencing lifestyle such as dietary habits, motives for physical activity, body weight, self-esteem, energy expenditure and depression. Along with limiting factors identified in other research findings (Fu, 1993), the development and promotion of an active lifestyle must be a goal given top priority by Hong Kong SAR Government in the years ahead. For Hong Kong to remain as an attractive international business city, providing quality of life for the residents here is imperative.



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Recommendations

Recent findings showed that the physical fitness of Hong Kong school children is declining and the prevalence of obesity among them is increasing. It is believed that primary prevention programmes should be developed especially for them. It is recommended that we initiate changes in the following areas:

Curriculum

The present school curriculum needs revamping. The proposed changes by the Hong Kong SAR Government in the school curriculum in 2009 and corresponding changes in the public examination (HKCEE) to four core subjects (English, Chinese, Mathematics and Liberal Studies) plus 2 other subjects was a step in the right direction. School teachers would need to be retooled to deliver quality education in the new curriculum, especially in the areas of subject content and assessment methodology. Children should not have to learn by memorization and have more time to read and think analytically. They should have more time to participate in co-curricular activities such as sports activities and other school teams such as debate and choir.

Physical Education curriculum

In developing the future physical education curriculum, the following strategies should be employed:

- A. They should be fun, attractive and challenging.
- B. They should facilitate development of positive self-image and self-concept.
- C. They should contribute to the acquisition of motor skills (such as acquiring a lifetime sport).
- D. They should contribute to the development of social skills.
- E. They should be perceived to be purposeful.

Community support

The development of physical education in Hong Kong has been following the footsteps of the United Kingdom in many aspects. The 1966 Riot in the territory led to increased awareness of the need to promote sports culture, especially for youth. However, as the urbanization process during the past 30 years was unmatched by city planning and development, the SAR Government must continue to join force with the National Sports Associations and the private clubs to provide attractive and affordable facilities and programmes for the public and children. Some suggested that the same period was the Golden Era of physical education and sports in Hong Kong – the construction of many sports facilities for the public and the remarkable success of Hong Kong athletes in international competitions (Gold medals in Wind Surfing in the 1996 Olympic Games and in Cycling in the 1998 All China National Games).

The development of sports culture in the Hong Kong Chinese still faces an uphill battle because academic success and career are given much higher priority over success and participation in sports. The awareness and emphasis on health and quality of life by the public would provide the much needed incentives to further develop and promote sports culture in



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the territory. It is also important to educate the parents and have their support on this endeavour.

Professional support

As a cosmopolitan city, Hong Kong has incorporated many western practices in the local culture and such integration takes time. There is a dire need to continuously provide refreshing subjects for our professionals so that they are well aware of current trends and research findings. Their ability to understand, articulate and implement new initiatives and adapt them in the traditional settings would remain an important factor in our success to meet future challenges. It is equally important that we develop leadership from our local professionals to accept this task.

Others

The policy of dual emphases on sports for the masses and sports for the elite athletes must remain since it would satisfy the motivation for health and quality of life on one hand and the need for sports superstars and national pride on the other. The concept that an active lifestyle promotes health and quality of life must be accepted by parents and children. For the exercises of assessment in schools and admission to tertiary institutions, the emphasis on non-academic activities such as sports should be implemented and articulated to all stakeholders – parents, teachers, and children.

Summary

In applying the Puritan's work ethics towards participation in physical activities, some Americans were quite successful in maintaining physical fitness through regimented physical conditioning. The recommendations by the American College of Sports Medicine on exercise prescription have been adopted in the US for over 30 years and many Americans have benefited from this approach. Recent findings indicated that exercise in itself is not enough and lifestyle appears to be even more important (See Figure 1). It is accepted that an active lifestyle is associated with quality of life. What lessons can we learn from the Americans who have been advocating physical fitness for the past 50 years?

Physical work is not highly regarded in the traditional Chinese culture and leisure activities might not involve physical activities. However, with the importing of western diet and technology, the development of an active lifestyle and a healthy diet is essential to the attainment of health and quality of life. Parents and children must be well informed on the merits of an active lifestyle and a healthy diet and how to acquire them. It is believed that with strategic planning in the school curriculum and PE curriculum, improving community support networking, and retooling PE and sports professionals, children will be able to learn how to remain fit and healthy throughout their lifetime. They will be able to develop and maintain active lifestyle and enjoy health and quality of life as they grow up. All children should learn at least a lifetime sport whereby participation (active and/or passive) brings joy and social reinforcement. It is imperative that we learn to pursue an active lifestyle and enrich it with specific programmes in schools and in the community – such as setting a target of walking 8,000 steps per day.



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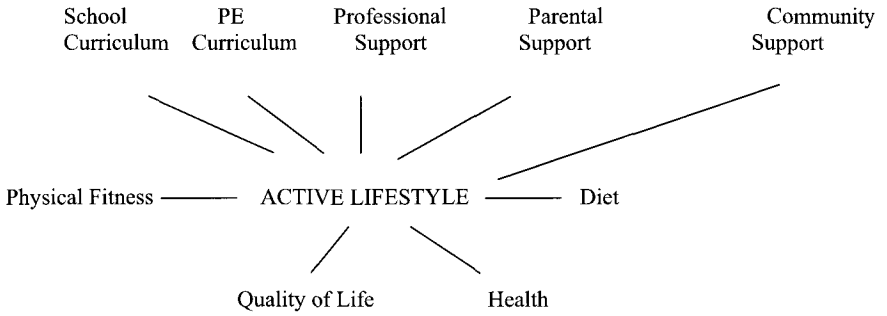
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Figure 1. The Development of An Active Lifestyle in School Children.



特教幼兒在團體遊戲課程之學習

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摘要

「遊戲是幼兒的第二生命」，喜愛遊戲也是幼兒的天性，杜威 (J. Dewey) 強調「寓工作於遊戲」，以及「從遊戲中學習」的觀念。本研究旨在以個案研究探討一名學齡前特殊班幼兒在團體遊戲中的學習表現。研究對象為台灣省花蓮地區某學前特教班幼兒，這些幼兒的症狀包括重度智障、注意力不足過動兒、多重障礙等類型。研究的方法係對該班教師採深度訪談，輔以教學活動影帶、團體遊戲活動設計、團體遊戲簿等文件資料的蒐集。根據研究結果，本文提出建議供未來學前特教機構及相關單位，和未來相關研究的參考。

關鍵字：團體遊戲、特殊幼兒、學習表現

緒論

研究動機

遊戲對成人而言是一種消遣、娛樂或逃避例行事務的方法，對幼兒而言，遊戲就是工作，遊戲是幼兒獲取經驗、學習與實際操作的手段。以遊戲為本位的教育可以追溯到早期遊戲教育的先鋒-盧梭(J. J. Rousseau)、裴斯塔洛齊(J. Pestalozzi)、福祿貝爾(F. Frobel)等人的教育理念。十九世紀幼教之父福祿貝爾即傳遞「遊戲乃維護保持兒童工作驅力最優雅的工具」(周玉秀, 2000)；「遊戲是幼兒時期的最高發展，因為它是幼兒心靈的自由表達，幼兒的遊戲不單只是運動，它充滿意義而且極為重要」(高淑貞, 1994)。「從遊戲中學習」的口號，一直以來是幼兒教育的目標。而皮亞傑(J. Piaget)也認為：提供幼兒自發性的學習與探索情境，能使幼兒從中學習到新的知識(引自魏美惠, 1995)，幼兒透過遊戲可以使現實符合自己原有的認知結構(黃瑞琴, 1999)。

台灣的幼稚園課程標準中將遊戲依其內容分為「感覺運動遊戲」、「創造性遊戲」、「思考與解決問題遊戲」及「閱讀及觀賞影劇、影片遊戲」等五項。遊戲課程的實施依活動主題以「自由活動」、「個別活動」、「分組活動(角落或小組活動)」及「團體活動」等方式進行，並且強調提供豐富的學習資源、學習環境與足夠的時間讓幼兒透過遊戲的方式學習(中華民國教育部, 1987)。



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在幼兒學習領域中，特殊幼兒屬於弱勢的族群，多數人都將特殊幼兒指向學習或身心有困難的幼兒而言，其中有一種類型為「智能障礙」(mental retardation)，有人稱它為智能不足，它是指個體在理解、記憶、思考及社會適應等方面有某種程度困難的一種標記(林美和，1992)。維高斯基(L. Vygotsky)提出「鷹架行爲」(scaffolding)的概念，他認為讓幼兒在從事某項工作時透過成人或同儕給予支持可以鷹架幼兒的行爲(黃期璟，2003)，而這個觀念對學習或身心上均較一般幼兒困難的特殊幼兒而言更是需要。因此，如何從智能障礙幼兒的學習為起點，以及如何設計適當的活動讓智能障礙者學習，並兼顧以「幼兒在遊戲中學習」的觀點，並針對學齡前智能障礙的幼兒進行遊戲活動，就成為本研究主要的研究動機，並期望藉由遊戲活動方式，以提供學前特教教師設計課程活動和未來相關研究的參考。

研究目的

根據上述的研究動機，本研究的研究目的有以下幾項：

- (一) 瞭解學前特教教師團體遊戲教學活動歷程。
- (二) 瞭解智能障礙幼兒在團體遊戲活動中的學習表現。

文獻探討

一、遊戲的性質及其相關研究

(一)、遊戲與遊戲課程的性質

遊戲是一種隨個人意志而自由選擇的活動，以獲得直接的歡樂，作為參加活動的直接報酬，它是幼兒自然的活動和自然的學習媒介，具有想像力的行為模式，且能同化調整外界的現實，以符合個人的概念(蔡淑苓，2004)。所以遊戲本身是伴隨著快樂和滿足的活動，它是自覺的，而且自由的，並以自信為目的(陳正奇，1990)，而它主要的功能即在於實驗、治療、生活技能的演練、休閒，以及練習個體維生的基本技能(郭靜晃譯，1992)。而所謂的團體遊戲則是由參與者共同進行的一個活動。

由幼稚園發展史窺知，遊戲早已是幼稚園課程的核心要務(Monighan-Nourot, Scales, Van Hoon, & Almy, 1987)。Sponseller(1974)將各種類似遊戲的行為區分為：「自由遊戲」(free play)、「引導遊戲」(guide play)、「指導遊戲」(directed play)、「擬似遊戲的工作」(work disguised as play)、「非遊戲的工作」(work)五種類型。這些遊戲類型的分類從「以幼兒為中心」到「以教師為中心」，隱含了教師將學習包裝在遊戲中的不同作法，除了自由遊戲是指幼兒隨心所欲的自發遊戲之外，其餘皆或多或少有成人介入的成分。目前幼稚園採行的課程模式種類繁多，其中「建立在遊戲基礎之下的主題課程」，主張教育關注具有內在價值、有助於兒童發展的活動，強調遊戲對幼兒學習的重要性，課程知識的學習並非所論(李子健、黃顯華，1996)。

若以遊戲為本位的課程而言，在遊戲的「課程選擇」方面，Van Hoon, Scales, Monighan-Nourot 和 Alward(1999)主張以遊戲作為幼兒學習活動的核心，透過每日的例行活動(daily life activities)與教師計劃的活動(teacher planned activities)的實施，來培養具有能力的幼兒

(二)、遊戲的理論

自十九世紀以來，與遊戲相關的理論陸陸續續的建構發展，依其建構時間先後之順序及探究之方向可分為 19 世紀的古典學派，以及 1920 年代以後發展出來的現代理論。由 Mitchell(Elmer Mitchell)和 Mason(Bernard S. Mason)界定的四種古典遊戲理論中，「能量過剩說」(surplus energy theory)和「休養說」(relaxation theory)均視遊戲為調整精力之途。「練習論」(pre-exercise theory)與「重演論」(recapitulation theory)則視遊戲為一種本能的行為。

現代遊戲理論認為遊戲是有價值的學習經驗，強調遊戲對個人身心發展及適應的重要性。現代理論不只在解釋為什麼要遊戲，也說明遊戲行為的前因後果，以及幼兒在遊戲中的角色情形，提出這種角色的發展。現代理論包括主張遊戲是在調節受挫經驗的「心理分析論」(psychoanalytic theory)；此外，「認知理論」(cognitive theory)則主張幼兒熟練並鞏固所學技巧，或藉由區別意義與實物來提高想像思考，或是增加思考及行為上變通能力；再者，「警覺調節理論」(arousal modulation)認為遊戲是讓幼兒增加刺激，以保持最佳警覺程度；「Bateson 理論」(Bateson theory)則主張遊戲是矛盾的，其中的活動都只是假裝而不是真的，藉此提升兒童了解遊戲與真實生活中各層面意義的能力(郭靜晃譯，1992)。

(三)、幼兒遊戲的相關研究

遊戲與學習發展之間並沒有一致的看法，Montessori(1995)認為遊戲是學習與發展過程中一個瑣碎、無足輕重的行為現象。但是，更多數研究結果肯定遊戲對幼兒學習發展的價值，遊戲無論是對智力(Christie, 1983)、問題解決能力(Smith & Dutton, 1979)、創造力(Vygotsky, 1990)、語言與閱讀能力(Athey, 1984)、讀寫能力(Musthafa, 2001)、社會能力(Morrisset & Lines, 1984)、情緒表達(Morrisset. & Lines, 1984)、甚至是運動能力(林勤昌, 2005；陳信全, 2002)都有明顯的助益。Johnson等人(1999)指出，遊戲經驗可以提供廣泛的學習機會，遊戲好玩與快樂的本質，能具體地連結遊戲與學術科目的學習。遊戲愉快的氣氛可以促進正向的學習態度，引發內在的學習動機。同時，遊戲具備銜接基礎學習的功能，提供幼兒學習基本技巧與概念的機會，教師並可針對發展遲緩的幼兒給予適時地個別輔導，來鷹架幼兒的學習。

二、智能障礙的性質及其相關的研究

(一)、智能障礙的性質

智能障礙 (mental retardation) 也有人稱為智能不足，它是指個體在理解、記憶、思考及社會適應等方面有某種程度困難的一種標記 (林美和, 1992)。依照身心障礙及資賦優異學生鑑定標準第三條第二項第一款所稱的智能障礙，係指個人之智能發展較同年齡者明顯遲緩，且在學習及生活適應能力表現上有嚴重困難者，其鑑定標準有二，包括心智功能明顯低下或個別智力測驗結果未達平均數負二個標準差；學生在自我照顧、動作、溝通、社會情緒或學科學習等表現上較同年齡者有顯著困難情形。

但由於這些智能障礙者的心理和行為表現個別差異很大，綜合歸納其特徵，包括：會經常注意到錯誤的事情，對於需要深入處理記憶的問題頗有困難、問題處理策略和自我調

節能力的困難度、分類能力差、語言發展顯著差異和遲緩、學業屬於低成就者、經常有交友的問題、自我概念偏低、容易放棄有挑戰性的任務（張世慧、藍瑋琛，2005）。

（二）、智能障礙者的學習特徵

智能障礙者的學特徵包括注意力缺陷、知覺能力缺陷、記憶力缺陷，以及類化能力缺陷等四個層面。在注意力缺陷上，包括注意力不能持久、無法同時注意較多的東西或學習工作、容易分心；在知覺能力的缺陷上，包括不能正確辨認物體的方向、位置與形狀，而造成在符號、圖形、文字、字母或聲音等方面的辨認產生困難；至於在記憶力的缺陷上，則須反覆不斷的練習和教導才能記住所學習的內容；而類化能力的缺陷，則是在學習上很難產生學習的遷移(林美和，1992)。

（三）、智能障礙實證研究

在智能障礙的研究上，有研究透過實驗法加以探討，例如：探討社會技巧訓練方法對中重度智能不足者的效果，結果發現行為塑造法和模仿法可協助智能障礙者獲得「參與」、「溝通」、「合作」、「支持」等社會技巧，並有持續的效果(邱滿艷，1983)；除了實驗法外，另有研究探討智能障礙者的行為特質：梁秋月(1990)比較在自然情境下自閉症、智能不足與正常幼兒的溝通行為，結果發現智能不足幼兒的溝通行為優於自閉症幼兒，智能不足幼兒的溝通方法種類多且分散，大部分為非口語的溝通方法；此外，金秀麗(1990)發現教養機構三歲至十五歲智能障礙兒童的語言內容，以名詞最多，動詞次之，修飾詞則最少；而語言情境刺激圖卡可引發智能障礙兒童的語言表達能力；有趣的是，該研究亦發現這些兒童的語言表達能力類別與詞彙理解能力、智力、圖形推理能力有很密切的關係。此外，研究也發現他們在假裝性與典型的活動上受到許多的限制，限制的原因包括：缺乏內在動機、缺乏足夠的條件，例如一些特殊障礙的幼兒，本身就有行動、教育、社會等環境延伸的限制，進一步造成遊戲的限制，以致於特殊幼兒無法在正常發展的學習環境中成長。因此，他們的象徵遊戲經驗也較不足，例如：智障幼兒較少有組織性的合作遊戲行為(Minds, 1982)。

若缺乏象徵(symbolic)或提供不正確象徵層次的遊戲，則特殊幼兒的成長將受很大的限制。若專業人員或特教老師，未注意或修正特殊幼兒遊戲方法，未考量特殊幼兒內在認知能力和外在表現的差異，也是造成特殊幼兒在遊戲經驗不足的原因。教師需要針對特殊幼兒給予特別的遊戲輔導，鷹架特殊幼兒的遊戲能力。遊戲介入特教幼兒的目的可以是社會的(Ballard, 1985)、促進想像力的(Fox, 1993)、或是改善幼兒發展遲緩的項目(Haring, 1985)。

研究方法

一、研究對象

本研究採質性(qualitative)研究，在考量參與者開放的程度和參與意願後，以立意取樣(purposeful sampling)的方式，選取台灣省花蓮地區某學前特教班小昌老師(化名)及其任教班上的一位智能障礙幼兒小白(化名)為對象。小昌老師任教於學前特教班，班上幼兒包括重度智障、注意力不足過動兒、多重障礙等類型，小白是其中一名水腦症的中度智能障礙幼兒。

二、研究工具

本研究主要以深度訪談方式，訪問學前特教教師，透過半結構問題，以遊戲課程活動設計及實施歷程及智能障礙幼兒在團體遊戲過程中的學習表現為主題，針對受訪教師的回答再進一步探索、調查、詢問問題。此外，並透過幼兒個人檔案、團體遊戲活動設計、團體遊戲簿和教具等文件資料的蒐集，以「調查性」(enquiring)的訪談技術和「檢視性的」(examining)文件資料等多元方式蒐集資料，提供研究者「三角校正」的可能，儘可能還原資料的真實性。

三、實施程序

研究者先和小昌老師溝通研究目的，再以研究說明單載明研究動機、研究問題與研究方法，希望參與者配合的事項，及資料處理的方式，確認擔任關鍵報導人(key informant)的小昌老師能在信任、保密的狀況下參與研究(吳芝儀、李奉儒，1995)。小昌老師同意接受訪談並提供文件資料。訪談以錄音方式讓小昌老師回顧自身的團體遊戲課程，描述小白在這些活動上的學習表現，透過三次的循環訪談，一方面澄清訪談的內容，一方面釐清研究問題與方向，並對研究的主題聚焦，最後將錄音逐字稿由小昌老師檢視，去除不適當地方和補充不足的內容。

四、資料處理與分析

研究者根據訪談錄音的內容，加以謄錄並轉換成文字稿，轉譯的語料符號，除了逗點、句點之外，不用其他標點符號以免錯誤的解讀或詮釋。分析資料時將轉譯的文字稿內容加以分析、編碼，並比對教學活動設計、遊戲簿和教具的內容進行檢核。為增加解釋的效度，本研究採參與者回饋(participant feedback)的策略，將逐字稿及研究者所做的解釋與小昌老師分享，進一步釐清彼此觀點上的差異。撰寫研究結果時儘量採用「低推論的字詞」(low inference descriptors)，讓讀者體會報導人真正的語言與意義(王文科，2000)。

結果與討論

一、小白的學習特質

小白是小昌老師班級的一位特殊幼兒，除了中度智能障礙之外，小昌老師描述他的學習狀況：

小白，他是口語能力最好的一個孩子(在小昌老師班上)。可是因為他學習任何東西，可能是他怕陌生人，喜歡人陪伴及讚美，對學習新的東西的時候，他的動機不強。所以有時候我會陪著他，到隔壁班打招呼，有機會就唱幾首歌給老師聽，減少他的那種對陌生人的一種不知所措的感覺，他潛意識是有這樣，可是他一旦跟你熟悉的時候，他雖然可能妳走過去之後，才聽到小白說：「○主任好」，可是因為他的活潑度被引發出來的時候，他還是可以主動跟老師打招呼。



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...他是一個水腦症的孩子，所以他的頭部會比一般孩子較大，那他也是一個喜歡音樂的孩子，只要有音樂的話，就會隨著音樂哼唱，甚至於跳起來.....原則上如果說，兒歌的哼唱加手勢，是他熟悉的兒歌的話，他可以連續的哼唱，可是在這個之間，需要不斷的鼓勵稱讚.....。

由小昌老師的描述，小白在特教班中口語表達能力不錯，喜歡隨著兒歌哼唱但主動性、社會互動能力較弱。

二、團體遊戲課程的設計理念

面對特殊幼兒，小昌老師每天早上十一點到十一點四十分的時間，安排團課活動，課程的選擇和設計是經過對上學期課程活動的省思而來的：

.....上學期的時候，是訂坊間的讀本、CD 及教材學習本，帶著孩子一邊聽 CD 跟讀本唱念來學習，也請家長在家，協助放讀本 CD 讓孩子反覆聽的學習，.....家長反應孩子帶回去的讀本，孩子不會念，那雖然有聽了 CD，但是家長還是覺得孩子不會。所以到了下學期，應該輪到我做主教的時候，.....做了一個省思，...嘗試著把以前和其他老師使用過的自編課程，再配合目前的孩子的語文能力，設計適合的課程及團課讀本給孩子使用。

團體遊戲的課程內容是統整式的，將語文、認知、律動、美勞、社會行為的學習，並從中觀察幼兒的學習反應：

現在我們的課程是屬於包科式的，所以課程裡面有認知、語文、體能、美勞方面的，我會發覺到整個課程帶下來，發現孩子在兒歌的律動上會比較有較突出的表現，那我想應該是音樂是孩子的最愛，藉由結合課程的活動仿說、仿唱念及動作的練習，引發孩子說話的能力及知覺能力的學習。

對特殊幼兒設計團體活動的方式，小昌老師在教學中體悟到自己是「團體互動」為主要的教學目標：

我會很希望藉由這個團體課程活動裡面，讓孩子學到團體互動的活動，在團體互動裡面，讓他在裡面的學習，我懂得等待，甚至於我懂得輪流，甚至在我在輪流等待的時候，我會看別人的動作是怎麼做？再學習模仿，所以可以藉由老師的課程設計裡面團體學習，讓孩子去學習仿說、仿做，仿操作，所以在這樣一個課程裡，因為藉由唱唸是孩子的最愛，也最能引起孩子的互動，那在團體裡面的時候，孩子這樣相互的互動裡面，也會有我們意想不到的效果，尤其是同儕的模仿上。至於什麼時候我對課程的一個期許就是：孩子藉由團體互動的裡面，不只老師給予，同儕互動的給予，或是他們互動之後，額外連結出學習的東西？我想這就是我想不到的收穫吧！

小白老師的遊戲課程是屬於「老師事先計劃的課程」，主題的選擇是由小白老師以月為單位，然後依據每月的主題設計各週的發展主題，再依此設次每次的活動內容(表 1)。



課程雖然是由老師來設計、來主導，我想每個孩子有他們不同的潛能，.....雖然他們是特殊孩子。

月份	主題名稱	教學目標
二	我的好朋友	1.認識班上的小朋友 2.認識新環境和老師 3.輔導幼兒進入學習狀況 4.基本常規的養成
三	禮貌寶寶	1.讓孩子學會基本問候的禮儀 2.孩子能說請、謝謝、對不起 3.讓孩子學習做一個有禮貌的客人 4.孩子能主動和人表示問好 5.孩子能友善的表現社交的能力。
四	動一動	1.增進大小肌肉協調發展 2.會快樂的參與活動 3.能協助收拾 4.知道如何保護自己
五	我愛媽咪	1.讓孩子能愛媽咪 2.能自己動手做 3.能主動幫忙 4.促進大小肌肉協調發展 5.快樂的唱跳。
六	五五過端午	1.孩子能感受年節的氣氛 2.知道端午節的由來 3.讓孩子品嚐到粽子的滋味 4.知道進食的衛生習慣 5.培養幼兒的觀察力

表 1 小昌老師的團體遊戲活動主題及教學目標

綜括訪談內容及小昌老師提供之活動設計，發現小昌老師能夠觀察幼兒及家長對學習的反應，省思課程設計，其課程設計理念是「統整式課程」，以「團體互動」為主要的教學目標，進行「老師事先計劃的課程」設計。

三、團體遊戲課程的設計原則

根據訪談資料，整理出小昌老師的團體遊戲活動的設計原則：

(一)、增進幼兒的社會互動

此時因為是下學期，孩子也都是舊生，.....我就讓孩子自己來當主角，我用點名的方式，讓小朋友出來找好朋友握手，...我帶了一首握手歌，.....讓孩子唱念的一個兒歌律動(我的好朋友1)(我的好朋友第一週)。我希望孩子能藉由互動的活動，讓孩子結識新的朋友和練習打招呼(我的好朋友2)。



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(二)、觀察評估幼兒的需求與興趣

那雖然他的口語能力很好，可是我發覺到他比較會唱念兒歌，所以我就用他的優勢能力，我在團課裡面，我就配合著兒歌律動，去引導他的唱念能力，藉由他的唱念能力的提升，讓他有表現的機會。

(三)、配合節慶的設計

.....這週原則上因為剛好碰上元宵節，.....音樂律動裡面是找朋友，就是我們坊間裡面的一首1234567 我的朋友在哪裡，讓他們找到朋友之後，能夠提著燈籠一起繞一圈，再把燈籠傳給下一給朋友，再由另一個好朋友去找好朋友(我的好朋友2)。

小白的表現：當小白看到老師敲著木魚，一邊唱念著小星星上山來點名，點到誰誰就是小星星，他會笑嘻嘻的接尾句唸出小星星，又聽了老師的告知，被點到的小朋友要會舉手喊有的回應老師，及搭擋老師的示範，輪到小白被點到時，一直笑著看著老師，一會兒會慢慢的把手舉起來，卻忘記喊有，再聽了老師的解說後，第二次的點名，小白就會舉手小聲的回應有(我的好朋友1)。

在律動方面，我選了康乃馨花這首歌，我有要孩子藉由五月份裡面，康乃馨的活動裡面，讓孩子了解母親節的意義在。這週，我們有跟普幼的孩子做全園插花活動，每個孩子都插一盆康乃馨花要送給媽媽，藉由這樣活動，我幫孩子拍下來他們的作品照片，我把他加在康乃馨活動的兒歌裡面，也讓孩子不但學會唱這首康乃馨花，還能夠把花送給媽媽(我的媽咪1)。

那相框裡面，我會把媽媽的相片放進去，讓孩子回家送給媽媽(我的媽咪2)。

(四)、增進幼兒的學習興趣

.....因為學期才剛開始，想增加孩子的學習動機，所以我加了一首合攏張開的兒歌，想藉由肢體的拍動引發孩子的興趣(我的好朋友1)。

因為我還是結合上個禮拜做禮貌寶寶的歌曲，只是這一次利用孩子當模特兒，來拍個照，我只是把律動變成操作性的一個一個圖片呈現這個樣子。.....至於因為兩週下來，發現孩子他藉由禮貌寶寶的唱念熟悉之後，又本身班上的同學當模特兒，很快就能指認那些圖片，很快就說這是某某人，甚至於操作配對整首兒歌的圖片也很歡喜(禮貌寶寶2)。

(五)、了解及遵守遊戲規則

我的教學要點，要激發孩子互動的精神和興趣，評量孩子團體遊戲能遵守的規則。.....我就讓孩子兩個好朋友互相玩，「好朋友我們行個禮，握握手呀！來猜拳，石頭布呀！看誰贏，輸了！就要跟我走」(我的好朋友3)



(六)、生活常規

我希望孩子教學的要點，第一會主動幫忙，第二會將物品歸回原處。所以，這個活動裡面，我有讓孩子在操作玩具的時候，收拾吧！把玩具放回玩具箱(我的媽咪4)。

(七)、認知概念

我希望讓孩子認識裡面和外面的概念，還有配對的能力。所以，我這時候有讓孩子藉由唱念兩隻老虎，跳進烏拉圈裡面，那唱完第二遍之後，再跳出烏拉圈外面，再反覆的唱念。我發覺到可能是利用烏拉圈的方式，還有跳進跳出的動作他很喜歡，所以我們就可以一邊唱兒歌，一下子在圈內唱，一下子在圈外唱，那我也發覺小朋友很喜歡做老虎的動作(動一動4)。

我的教學要點是能指認媽媽的照片，藉由指認活動，點到的小朋友要出來，要能指認自己媽媽的照片，並且還要他能指認其他小朋友媽媽的照片(我的媽咪1)。

那所以這個單元我也配合律動活動的，介紹了一首「媽媽的眼睛」，這首媽媽的眼睛內容裡面，「美麗的 美麗的天空裡 出來了 光亮的小星星 好像是我媽媽 慈愛的眼睛 媽媽的眼睛 我最喜愛 常常希望我做個 好小孩 媽媽的眼睛 我最喜愛」，讓孩子一邊唱，一邊做動作，那重點是希望讓孩子了解，每個孩子是媽媽的心肝寶貝，還有媽媽慈愛的眼睛每天看著我(我的媽咪4)。

(八)、語言能力

我最主要是希望小朋友，會用語言或表情，來跟人家打招呼，所以我讓孩子從禮貌寶寶這首歌曲裡面，讓孩子自己早上起來的一天，藉由起來的洗臉、刷牙、吃早餐，背書包，上學去，老師早，同學早裡面，讓他們上學時看到老師、同儕會主動說「早」(禮貌寶寶1)。

基本上我希望孩子能夠增加互動的學習，有基本的社交禮儀，希望這個時候能讓孩子嘗試有禮貌的小客人，會說請、謝謝、不客氣。我要孩子做指認圖片、找好朋友，所以我只是藉由之前的歌曲再複習一下，所以這一週我沒有新的歌曲出現，不過有讓孩子嘗試當小主人、小客人，讓他們進入歌曲裡面「叩、叩、叩、請開門，有人在家嗎？」及「叮咚、叮咚」按電鈴看看有沒有人來開門，所以一些基本的問話的對話(禮貌寶寶3)。

我加了「禮貌歌」，因為我發覺到這幾週孩子能夠從禮貌寶寶的打招呼裡面，甚至於當小主人、小客人的角色扮演裡，孩子學會了「請坐、請用、謝謝、不客氣」之類的辭句，那我就讓孩子在這週裡面，學習唱禮貌歌，藉由「有禮貌有禮貌，天天有禮貌，禮貌的孩子，天天有禮貌」，我發覺到孩子藉由禮貌歌裡面的呈現，至少會主動的一直跟對方在打招呼，因為他想做一個有禮貌的孩子(禮貌寶寶4)。



(九)、音樂律動能力

我在讓孩子仿做動作，我們請小朋友出來表演，因為律動裡是用洗臉歌，「洗洗臉，洗洗臉，乖乖寶寶，每天洗洗臉」，還有因為這個兒歌可以隨意更改詞句，那我就會讓孩子改為「洗洗手，洗洗手，乖乖寶寶，每天洗洗手」，甚至於還會讓孩子就是，「洗洗澡，洗洗澡，乖乖寶寶，每天洗洗澡」我想這些動作都是在他每天的生活裡面會做到的。我記得因為這首兒歌，從洗臉到洗澡，我讓孩子反覆的唱念三次(動一動1)。

我希望小朋友學到的教學要點裡面，發聲基本的練習，能夠有正確的嘴形。所以，在音樂律動裡面，我用到了火車快飛。因為，原則上，我在語言上需要孩子做口語發聲的練習，一×口，那一×口這樣的練習裡面，雖然它有唱念兒歌，可是我的音樂律動就用火車快飛來呈現，因為火車的開動是小朋友最喜愛的(動一動2)。

我希望孩子第一個能分辨大小聲，第二會模仿老師做動作和聲音。所以，我這裡面加了一個遊戲，老鷹抓小雞，那就希望小朋友，由老師當老鷹，請小白當母雞，那我来抓那些小雞，……，可是因為在跑動的過程，母雞大聲叫的時候，小雞就學了大聲叫，母雞小聲叫的時候，小雞就學了小聲叫，所以這個活動要讓他認識大小聲(我的媽咪3)。

我希望讓小朋友能感受節奏性，讓孩子聽音辨別，音的尋找。對樂器的操作，我讓孩子聽鼓聲慢慢走，聽鈴聲快快走，我在這裡的音樂律動裡，有教一首「小星星」，我發覺這首歌，小朋友可以跟我做一樣的動作，小朋友也會很喜歡(動一動3)。

可能這個單元已經快接近期末了，我沒有再設計兒歌進來，那我有用就是讓孩子仿划龍船的動作，藉由打鼓、拍打樂器做練習這樣子(五五過端午1)。

(十)、動作技能發展

我是要小朋友第一知道如何運用自己的手來搓捏黏土，第二知道自己的物品應該擺放的位置。所以，我在這個活動裡面，我設計了一個結合美勞的活動，讓孩子操作黏土，把黏土黏在相框上面，捏不同的形狀，壓在相框上(我的媽咪2)。

……小白，拿到那個燈籠之後，他也很高興的微笑繞了一圈(我的好朋友2)。

(十一)、延伸到親職教育

那我這個活動，有一個音樂帶「天下的媽媽都是一樣的」，我是希望配合這個單元，我有請爸爸來做教室的打掃，我把他拍成照片，讓小朋友去觀賞，觀賞之後，我想讓孩子體會媽媽在家裡一天的工作情況，除了煮飯、燒菜、洗衣服之外，對他的照顧，讓孩子了解，天下的媽媽都是一樣的，媽媽的愛是最偉大的(我的媽咪3)。



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由上述分析發現，小白老師的團體遊戲課程實踐歷程，是以教師主導遊戲課程的內容與程序，小白老師以社會互動為其主要的設計目標，然而，雖然由教師主導，設計前會觀察幼兒興趣能力，考量節慶，以使設計延伸到生活應用，課程內容以引發幼兒的學習興趣，帶入生活常規的引導，並統整認知、語言、音樂律動、動作技能的學習於一堂，甚至延伸到親職教育的部分。

四、幼兒的學習及行為表現

根據訪談資料，小白在整個團體遊戲活動歷程中的學習表現，分析整理如下：

(一)、社會互動能力的學習

他雖然是一個有點害羞的孩子，對陌生人比較會害羞，可是妳一旦讓他熟悉的時候，他的主動性就會出來，所以我發覺到禮貌寶寶這個單元，也能夠讓他主動跟老師打招呼，甚至於隔壁班的老師，他也會主動和他們打招呼(禮貌寶寶 1)。

小白當小客人的時候，會發現小白在按電鈴的時候，會笑捲舌頭做「叮咚、叮咚」的動作也說的很大聲的叮咚、叮咚，當小主人開門時會笑著看著小主人，當小主人請他坐時，會小聲的回應謝謝，等到小主人請他喝茶吃餅乾時會大聲的說：「謝謝」，還會說：「草莓餅乾好吃。」(禮貌寶寶 3)

尤其是期末的時候，我發覺他非常的活潑，他的表達能力愈來愈好，也愈來愈快。

(二)、學習遵守遊戲規則

小白應該是說他們在這個活動裡面，他們可以等待，甚至於在老師口語提示下輪流(我的好朋友 3)。

(三)、遊戲技巧的學習

我發現到本來不會猜拳的孩子，...竟然會練習著猜拳的方式，雖然剛開始都出一樣，只是會玩初步的，但是至少他們有互動的學習(我的好朋友 3)。

(四)、歌謠、音樂、律動的學習

小白他可以很熟悉的把它唱念完(禮貌寶寶 1)。

小白這首歌對他來說並不困難，他能夠很自然的唱念，唯一的狀況，就是他唱念的裡面，他會笑得很開心(禮貌寶寶 4)。

小白在唱念的過程裡表現得很好，唯一只是不停的在笑(動一動 1)。

小白，這首歌雖然他沒有學過，原來他本身的唱念能力非常的好，他在這首歌幾乎所有動作幾乎百分之八十都有做到(我的媽咪 1)。

小白他可以跟著我唱念這一首兒歌，可是他也可以跟我一起比動作，尤其比那個，媽媽我最喜愛，常常希望我做個好小孩，我覺得那個好小孩的動作，他比得好可愛，因為他想作媽媽的心肝寶貝(五五過端午 1)。

小白，他是一個比較做任何事情的時候，他會聽老師的指令，但他偶爾會停住，在這一活動裡面的划龍船，我發覺他會跟老師搶做划龍船，那至於說敲鼓，他也會跟著老師的節拍「咚咚咚」的去敲打(五五過端午 1)。

小白，他也慢慢學著老師做蹲的動作，跳踩到烏拉圈裡面去唱，那唱完之後，跳踩到烏拉圈外來(動一動 4)。

小白，在火車快飛裡面，我發覺到他不斷的開動他的火車，還會留意小朋友的火車有沒有接續(動一動 2)。

(五)、認知能力的學習

小白，我發覺他能夠很主動的唱念完之後，快速的圖片配對，我記得他之前對於拼圖的那一部份，往常圖片拿在手上，他就會愣很久，還要在老師催促提醒下完成，因為他對於操作性的東西，是需要有人陪伴著一起完成，讓他自己動手的主動性不高，所以我發覺這一週禮貌寶寶的圖片中，他能夠一邊唱念，一邊主動的拼完，我想這是他一個進步的表現(禮貌寶寶 2)。

小白，他可以跟我數一、二、三、四、五，他甚至於可以跟我數到十(動一動 3)。

(六)、語言能力的學習

那我很高興這一次他只要在我的口語的指令下就能完成，所以我沒有給予動作上的協助(我的媽咪 3)。

小白一邊唱著美麗的相框，也會跟我說：「這個要送給媽媽的」(我的媽咪 2)。

(七)、動作技能的學習

小白他是屬於碰到操作性的東西，他會愣在那邊的孩子，所以，擦桌子這個活動，就在老師的半協助下指導他完成，那我很高興這一次他只要在我的口語的指令下就能完成，所以我沒有給予動作上的協助(我的媽咪 3)。

由上述分析發現，小昌老師觀察到小白在團體遊戲的過程中，社會互動、生活常規、遊戲技巧、歌謠律動、認知、語言及動作技能方面的學習。

小昌老師在整個學期團體遊戲課程的實施中，擺脫了傳統教育應用現成課本的模式，嘗試自主的課程設計，傳遞了自身的教育理念。其課程設計顧及了統整的、多元的面向。幼兒小白在此團體遊戲的歷程中，也的確有了多元的學習成果。此外，此種「教師中心」的主導情勢，也因小昌老師觀察了幼兒的興趣、需求、能力，而隱然注入了師生「磋商」



的成份。然而，在「學校主導」、「教師主導」與「幼兒主導」的架構中，如何激發幼兒自發的課程，是值得學前特教課程思考的。

在遊戲課程的實踐歷程中，小昌老師扮演了幼兒遊戲的觀察者、記錄者與知識傳遞者的角色，而在整體的社會文化架構中，小昌老師在這些角色的扮演中，是否存有衝突，值得進一步的探討。此外，教師在課程設計的歷程中，如何檢視自己的「懸缺課程」(null curriculum)，也就是是否仍存有可以幫助特殊幼兒學得更好的團體遊戲課程元素未被注入此一課程中，身為一名學前特教老師，如何透過與其專業社群之同儕、專家、理論之間的對話與反省，持續朝向專業的教師邁進，學前特教社群如何發展出使其成員朝向專業深耕的機制，也是同時需要每名社群成員從自身面向，整個社群從整體面向共同省思的。

結論

本研究以個案方式呈現一名學前特教老師的團體遊戲課程設計、實施，及智能障礙幼兒小白的學習成果。由蒐集的資料顯示特教界中默默耕耘的教師，捨棄容易實施的現成課本，將其特教理念，透過活潑、統整、多面向的團體遊戲方式，融入特殊幼兒的學習中，而特教幼兒也因此激發出多面向的學習。然而，本研究受限於人力、時間，無法進行長期、深入而多面向的觀察。

綜言之，理論界常批判實務界悖離理論而行。然而，在批判的同時，更應深思探討的是實務界的實踐現狀，以及具體將理論導入的作法。「遊戲是歷史，又是詩，也是預言」(桂冠前瞻教育叢書編譯組，1999)，可稱為幼教課程核心的「遊戲」，如何導入課程，尤其是特教課程，仍是學前特教社群值得茁壯的領域。

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幼兒體能與遊戲課程對體育系學生創造力影響之初探

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摘要

本研究旨在探討師資培育機構中，幼兒體能與遊戲課程對體育系學生創造力表現的情形。以臺灣國立花蓮教育大學 2004 年修習過幼兒體能與遊戲課程體育系學生 38 名為對象。針對實驗對象進行十八週的教學實驗，以教學大綱、上課講義、學生活動設計等為資料收集的方法，並於結束後隨機抽五位學生回答開放性問卷方式，藉以瞭解學生學習後的感想。根據問卷結果，本文提出建議供未來師資培育機構開設幼兒體能與遊戲課程及相關單位，和未來相關研究的參考。

關鍵字：幼兒體能與遊戲、創造力

問題背景

體能遊戲課程對兒童的動作發展及運動能力的提昇，深具影響，人的一生只有一次，如何活的健康、活的快樂，是陪同兒童成長者應有的覺知。理想的動作發展與適當運動強度及完善的遊戲課程，對促進學齡前兒童基本動作能力之發展是非常重要的且具有意義(林勤昌，2005)。學齡前兒童體能活動是一切活動能力的基本來源，對於一生成長都起著決定性作用(傅建益，2000)。林清和(1996)認為：生物體與生俱來有的能力對學習的影響很重要，就人類而言，幼稚期很長，簡單的行為像爬行、站立、行走和跑步等動作均需經歷漫長的學習過程。由於人類的學習、成長直至獨立，必須經過漫長歲月經驗的累積，長時間的學習過程，如果採用枯燥無趣的課題，無法獲取幼兒參與的熱忱及學習成效，因此；如何由遊戲中獲得學習的經驗，不斷變化學習課題的新鮮感及刺激更形重要。

兒童生活以遊戲為中心，遊戲是最自然、最自由的活動，不僅帶給兒童無上的喜悅和莫大的滿足，更是教育兒童的理想園地(林風南，1988)。邱金松(1977)認為：兒童期的身體活動，不僅對於身體的發育及運動能力方面有很大的影響，對其情緒、人格及生活態度等發展也有密切的關係。由於都市化現象的形成人口集中，使遊戲場所變得狹窄，高樓住宅使兒童疏遠了戶外遊戲場所的距離(水谷英三，1981)。黃文俊(2000)針對，坐式生活形態在兒童健康體適能之比較分析研究發現：坐式生活形態時間較少的個體，在身體組成、肌力、肌耐力、柔軟度等各項體適能，比坐式生活形態時間較多的個體稍微好一點；但在心肺耐力部分明顯優於坐式生活形態時間較多的個體。Coltin(1999)指出：以五至十四歲之就學幼兒每天大約有 80%的時間是生活在學校的教育中，這代表著學校教育在其一生的成長過程中對社會經驗、情緒、認知和身體技能之發展有著重要的影響。運動遊戲可以促進運動能力的發展，並培養幼兒的體力以備將來適應現代社會，生



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活健康有活力(王純貞, 1997)。沈連魁(2003)認為體能遊戲活動可以創造孩子美好的童年生活, 尤其當我們居住環境越來越都市化, 自然環境過於開發等因素造成的擁擠、忙碌及疏離感, 藉由具教育性、啟發性及創造性的體育活動, 使下一代擁有健康的身心及良好的情緒控制能力。

教師教學成敗攸關學生學習之成效, 教師如何在教學中發揮創造性思考能力, 編制一套創意性的教學內容, 藉以引發兒童的學習興趣; 唯有創意性的教學, 才能引導學生自由自在的、快快樂樂的在學習成長過程中, 活絡在創意學習的空間。教師在教學過程中如何引導學習, 是關係著學習者是否能敞開內心深處, 跟隨著教師學習的主要關鍵因素。由受過專業體育教育的教師, 來教導幼兒如何運動身體, 這對目前體能師資缺乏及大多數由幼稚園帶班教師來實施而言, 乃是一項絕佳的選擇(潘倩玉, 1998)。針對目前國內國小師資過剩的情形, 師資培育機構如果能將學前教育, 納入師資培育的範圍中, 將能解決部分師資過剩的問題, 然而, 所有教育科目中, 唯有體育教育能涵蓋最大空間, 從孕婦、幼兒、兒童、青少年、少年、青年、壯年直至老年均可由體育教師來施教。因此: 體育系學生在修業幼兒體育與遊戲課程中, 創造力的啟發更行重要。本研究旨在探討幼兒體能遊戲課程中, 體育系學生如何應用學習成果, 發揮創造力於教學活動時見到學習成效, 學習過程中學生的反應, 將是提供教師教學省思的重要方式之一。

文獻探討

體能遊戲的意義及其相關研究

(一)體能遊戲的意義

十八世紀的盧梭是鼓勵孩子發揮遊戲的天性, 而十九世紀的福綠貝爾與蒙特梭利則有意借遊戲達到教育的目的(郭靜晃, 1997)。遊戲是幼兒內在自我活動的表現, 代表內在需求與衝動; 遊戲是幼兒期中最純淨也是最具心靈性的活動(Froebel, 1826; 引自蔡淑苓, 2004)。艾瑞克森(Erikson, 1950)認為遊戲是自我功能的發揮, 是身體和自己同時發展的社會化過程, 是想像和實際的中介變項, 遊戲必須由兒童去選擇、去感受愉快與歡樂。皮亞傑(Piaget, 1962)提出遊戲是學習新的、複雜事物的方法, 是形成和擴大知識與技能的管道, 也是思維和行動結合起來的過程; 遊戲是個體對環境刺激的童話, 使現實符合自己原有的認知基模的方式。許麗鳳(1996)則認為透過遊戲的方式, 讓孩子能對遊戲的內容和機會產生滿足感, 能先學好綜合的身體動作, 即可進一步隨心所欲地做出有系統且美好的動作, 這才是遊戲的真正目的。遊戲是一種經由特殊設計的教育活動, 提供孩童身體發展的具體經驗與社會發展的寶貴經驗(郭世德, 2000)。蔡淑苓(2004)歸納各學者有關遊戲的意義認為: 遊戲是幼兒自然的活動和自然的學習媒介, 是由其直接內在的動機引起; 具想像力的行為模式, 且能同化調整外界的實現, 來符合個人的概念; 不需依賴外在世界的獎懲, 不受外部規則制約, 而又有自己的規則; 重過程不重結果及積極主動的參與。

(二)體能遊戲的特質

幼兒體能活動是一種以運動為主體, 以遊戲為方法, 以教育為指導, 以培養幼兒身心發展的基礎能力為目標的活動(林鳳南, 1993)。遊戲是體育課程中的一項重要教育工具,

遊戲可以是靜態的、動態的、預先設計的、由教師設計的、或學生設計等方式(許義雄, 1997)。幼兒體能遊戲課程的重要性需藉助專業的運動指導者或體育教師, 以有趣的運動遊戲活動設計及有效的教學方法才能彰顯幼兒體能課程的價值(沈連魁, 2003)。遊戲可以提供學齡前兒童各種學習機會並增進生理、認知、情意、社會和情感的均衡發展, 所以遊戲是學齡前兒童賴以成長並獲得智慧的最佳方法(Guccione & Yawkey, 1984)。福祿貝爾創立幼稚園使幼兒得以在遊戲中學習; 蒙特梭利也強調透過遊戲讓幼兒獲得讀寫算的技能; 盧梭則是強調給予幼兒充分的自由進行遊戲, 雖然福祿貝爾、蒙特梭利兩人與盧梭的觀念不同, 卻為現代遊戲觀念的推動帶來相當大的影響(陳淑敏, 1999)。現代遊戲理論強調遊戲對情緒、心智、社交上的影響; 心理分析派理論強調遊戲是為了抗拒焦慮; 認知學派強調遊戲對心智影響的價值; 覺醒學派則認為遊戲是為了提供適量程度的刺激(郭靜晃, 2000)。陳正奇(2000)認為遊戲的本質: (一)遊戲本身是伴隨著快樂與滿足的活動; (二)遊戲是自覺的、自由的, 並無外力的強制與壓迫; (三)遊戲是以自信為目的, 並無其他目的的存在。

郭靜晃(2000)綜合心理學家的理論提出遊戲的特徵: (一)遊戲是一種轉借的行為, 無固定模式, 亦不能由外在行為或定義來區分; (二)遊戲是出自內在的動機; (三)遊戲是重過程而輕結果; (四)遊戲是自由選擇的; (五)遊戲具有正面的選擇。個體在不同階段的認知能力有其個別的特質, 這特質在教學的情境中恰可以提供教師瞭解個體學習的現實性(石素棉、陳瑞慧, 1999)。林勤昌(2005)認為從教育的觀點, 應該鼓勵學齡前兒童讓他們自由自在地從事遊戲活動, 並盡量地啟發他們的智能, 滿足他們的好奇心, 使他們的身心獲得健全而充分的發展。幼兒的身體活動課程具備了與體育課相似的特性提供幼兒認知、情意、心理動作學習等多方面的學習情境(黃淑芬, 2002)。

(三)體能遊戲的價值

遊戲有助於身體知覺能力發展與增進語言發展能力, 並可提昇智能發展及促進社會發展, 另一方面有抒解情緒的功能, 提昇思考、創造、解決問題的能力(張翠娥、吳文鶯, 1997)。學齡前兒童與遊戲的功能分別為: 滿足兒童的好奇心與探險心; 建立彼此更親密; 溫暖的親子關係; 訓練孩子解決問題的能力; 促進孩子的社會性發展; 藉由觀察、模仿, 孩子能學習更多事及專家用來治療有情緒困擾、行為問題孩童的處方之一(徐澄清, 1986)。遊戲或比賽是童年的重要及主要活動他們不只是打發時間、發洩精力或促進生理動作之協調而已, 同時還具有主動探索、發表感受、學習社會性及引發互動的特質(何長珠, 1998)。遊戲的特徵說明: 遊戲不是探索行為; 遊戲是由個體的內在動機所引起, 是自願自發的行為; 遊戲通常會給個體帶來快樂, 或夾雜驚恐的情緒; 遊戲強調過程而非結果; 遊戲中的個體是主動而積極的(連秀英, 1991; 陳淑敏, 2000; 林勤昌 2005)。遊戲可說是幼兒生活的全部, 是個體發展過程中自然正生的行為, 幼兒在遊戲中所流露的態度和情感是最真實的(許錦春、林素娟, 1992)。運動遊戲除了好玩以外, 還具有教育、治療、身心健康、致力提昇、社會道德及情緒發展的價值(陳正奇, 2000)。許瑞峰等(1992)認為: 學齡前兒童多呈現精力充沛, 活潑自動的特性, 他們經由環繞在身邊的活動, 作為其學習的訊息來源, 同時也滿足了他們的好奇心。

幼兒無論在生理、心理、人格及社會化過程中, 都隨著年齡增長而成熟, 但心理、人格及社會化方面會受較多經驗的影響(陳信全, 2001)。掌握學齡前兒童學習關鍵期適時的給予指導, 在遊戲中營造適合其動作發展的情境增加其探索及活動機會(Smith, 1988)。兒童透過遊戲生活的體驗, 學習各種知識, 並從遊戲的創意過程中, 獲得適應兒童社會

能力，促進身體的成長和發展，奠定將來社會生活所必須的各種基本能力(林風南，1993)。黃永寬(2001)談到：幼兒可透過運動遊戲課程學習基本的動作能力，發展身體動作技能、增進體質、促進身心全面發展，為幼兒未來成長打好基礎。林錦英(1989)研究發現：健康、體力好的孩子，個性開朗活潑、做事積極及富創作性，進入小學之後成績較為優秀，故幼兒期運動能力之發展與身體、情緒、智能之發展是互相平行的。

兒童遊戲活動對其認知、社會性及情意方面都有助益，尤其是對自己的身體及自己的動作能力會更進一步的瞭解(Gallahue,1989)。成人應該提供兒童足夠的機會去活動，除了從活動中獲得快樂之外，很重要是兒童可以透過動作學習瞭解自己及周遭的世界，並進一步發展動作的技巧(許月貴、鄭欣欣、黃靜瑩，2000)。透過實際的觸摸、操作、觀察自己的身體，從中發現自己的能力與限制，同時也探索周遭物體的各種型態(許瑞峰等，1992)。提高學齡前兒童動作和身體表現，能提供更適當運動強度之遊戲來促進其身體健康，遊戲內容之改變會影響學齡前兒童動作之發展(Pienaar & Badenhorst, 2001)。透過早期成功的動作經驗，無形中增加幼兒對自己智能與能力的信心，改善其學業的表現(林翠湄譯，2000)。邱金松(1977)認為透過運動的指導，使學齡前兒童瞭解自己的身體，學會巧妙地使用身體，發展其意志、應變機能或認知機能，並能富有創意的表現自己，促進情緒的成熟與社會的發展。魏永興(2003)則認為國小階段的學童，其創意大部分來自學習活動，不論是課堂上的教學或團體活動，皆有激發的功能，藉由各項活動可啟發他們潛能發展，藉由孩童的實際活動，鼓勵他們去發現與思索以解節問題。

創造力的定義及其相關研究

(一)創造力的定義及其特質

Parnes(1967)認為創造性思考的產生，必須基於下列三要素：知識、想像、評鑑。Torrance(1972)將創造力定義為：創造思考是一系列歷程，包括對問題的缺陷、知識的鴻溝、遺漏的要素及不和諧等之察覺感受，進而發覺困難、尋求答案、再進一步求證；然後將獲得的結果提出報告，傳達給別人(引自毛連塹、郭有遙、陳龍安、林幸台，2000，頁11)。May(1975)認為創造的歷程不是非理性的，而是超理性的，是由智慧、意志力、情感等心智綜合作用的結果。賈馥茗(1972)認為創造力乃是利用思考的能力，經過探索的過程，藉由敏感、流暢與變通的特質，做出新穎與獨特的表現。Torrance(1974)覺得創造是一種思考的過程，從事創造思考時，人會對問題非常敏感，可以在知識中尋出欠缺、不足或不協調的地方確定問題所在，尋找各種解決問題的方法，不斷的猜測，對欠缺不足的地方提出可能之假設，驗證再驗證這些假設，最後將結果表達出來。Jones(1979)指出創造力是運用變通力、敏覺力和獨創力，將常用的思考方式改成不尋常及產出性的思考方式。張玉成(1983)認為創造力是思考運作過程中，保持新奇求變，冒險探究的精神，並表現出敏捷、流暢、變通、獨創、精進的特質。陳龍安(1984)將創造力定義為個體在支持性的環境下結合敏捷、流暢、變通、獨創、精進的特性，透過思考的歷程，對事物產生分歧性的觀點，賦予事物新穎的意義，其結果不但使自己也使別人獲得滿足。李錫津(1987)認為創造性的人物，以其原有的知識為基礎，發揮其好奇、想像、冒險、挑戰的人格特質，運用其習得的創造歷程表現出流暢、變通、獨創、精進的能力，獲得新穎、獨特、稀奇與眾不同，以及利人利己的觀念。Adams & Deborah(1998)認為創造力是結合舊經驗或融合各種事物的概念，同時也是引發人類獨立思考、好奇心及創新的一種能力。黃作岳(2001)綜合國內外學者之定義，將創造力分為三類：1.創造思考能力即創造力，亦即擴散思考能力；2.創造思考能力是一種心理歷程：包括觀察、探索、發

現問題、試驗，並於歷程中找出可行途徑，或是生產新成果或產品的過程；3.創造思考能力是一種人格特質。

創造性肢體活動課程可以從模仿、即興入門，透過教師的指導與引導，啓發學生學習探索肢體動作的可能性，自在的運用想像立即創造力，在愉悅、安全的情境中，表達、溝通互動，並體驗、欣賞美感也達到自我實現的目的(葉素汝，1998)。創造性肢體活動是一種無止境的探索過程，以適合自己的方法，將個人潛在的內在資源，轉化為外在身體直接而清楚的陳述(李宗芹，1991)。創造性肢體活動課程是以學生為中心，允許學生呈現個別化、自發性的表現(楊偉彰，2003)。創造性肢體活動是充滿了感性、主動性和無限的潛力，是激發肢體動作，讓幼兒更能善於創造性的肢體活動(林永雪，1994)。創造性肢體活動可以促使學習者善用身體，巧妙的利用身體來發展意志、信心及認知機能，富有創意的表現自己，促使情緒的成熟和社會性的發展(陳碧涵，1999)。

在創造性肢體活中上，每個人都可以獨創自己的風格，不必學習模仿固定的型式，可以激發個人內在的資源，從不斷的探索和學習中，發掘更多的新美感(李宗芹，2002)。劉淑英(1999)則認為創造性課程的實施，讓兒童重拾童真，享受想向與創造的喜悅，讓兒童在身、心、腦合一的肢體探索與同儕互動合作的歷程中達到全人的發展。適時的融入一些創造思考的觀念，一定能建構出更新的點子，也必能成為有用或具有參考價值的構想(黃幸美，1993)。

二、遊戲課程教學對兒童創造力的實証研究

學齡前兒童遊戲課程式一種結合基本動作技能和運動發展之綜合課程，藉由專業教學指導過程中，施以課程並發展機等動作技能及提昇運動能力為主要教學(Rutledge,1993)。在教學的過程中，提供可直接觀察、操弄的經驗對兒童來說是有效學習的重要因素之一(黃慧真譯，1990)。兒童是從遊戲活動，去鍛鍊身體、陶冶心智、學習自我表現與從事團體生活應具備的種種品德和精神，一個能在兒童時期獲得圓滿遊戲經驗的人，他的身心也會得到正常的發展(林風南，1988)。除了以實務的接觸及經驗的累積來促進幼兒認知的發展外，皮亞傑認為，提供幼兒自發性的學習與探索的情境，也能使幼兒從中學到新的知識(魏美惠，1996)。透過皮亞傑對幼兒認知以及遊戲的主張，從事幼兒教育工作者應體認到，提供幼兒從事探索、實驗，以及能對物體直接操弄得學習環境對幼兒的認知具有莫大的影響(黃慧真譯，1990)。

黃永寬(2001)於「動作教育模式在幼兒運動遊戲教學之觀察研究」中發現：(一)幼兒在做動作時能迅速找到合作對象，且最喜歡和教師一起活動；(二)幼兒在表現創意動作時呈現多元化特質，且能表現出各種具創意的動作；(三)幼兒對示範動作及描素動作的機會會積極爭取，但有時會對突來的任務感到退縮，且其進行描素動作時，大多僅就動作名稱或身體名稱作描素，很少有描素動作的方法；(四)幼兒參與活動時熱愛協助老師收拾器材，若有碰撞跌倒的情形，亦能快速且主動的再參與活動，因此；動作教育模式在幼兒運動遊戲教學視為有效的教學模式。曾玉華、王淑華(2000)指出：在教育上，若能掌握學齡前兒童行為發展過程中，某一時期或成熟程度最適合學習某種行為等特徵，並提供適當的學習環境，給予適當的教育，學齡前兒童行為在連鎖之間就能得到良好的發展。陳俊良(2002)談到教育環境對於學齡前兒童動作發展的影響，在精細動作上最為明顯，但學齡前兒童的身心發展尚未進入分化階段，更應重視整體動作能力的發展。



對學齡前兒童不論教學方式或活動環境為何，均可增進學齡前兒童之體能發展，而以動作導向的課程較其他型式的活動課程更容易增進其體能(Bohren,1989)。透過建構理論的觀點，教師在學習過程中扮演支持的角色，允許學生掌控自己的學習因此教師設計的活動必須更符合學生個別的需求，並保持適當的難度(Lee,1997)。難度太高的工作，易使幼兒望而卻步，採用適度的工作難度，才能使幼兒感受到活動的樂趣(黃月嬋，1998)。

教師在幼兒遊戲中扮演五種不同的角色，分別為遊戲主題的選擇與轉換者、遊戲環境的佈置者、遊戲之前的引導者、遊戲的參與者以及遊戲的結束者(鄭雅文，2000)。身體活動教育者所扮演的角色應是課程的設計者、活動的引導者、遊戲的參與者、安全的維護者、場地的規劃者、器材的提供者及學習的評量者，陪伴幼兒探尋成功的動作經驗，並將此動作經驗延續至未來生活(黃淑芬，2002)。教師在教學活動中給予兒童過多的自由或限制，都會妨礙兒童學習的流暢感，如果教學內容太難或太簡單也會使兒童感到挫折或無聊，幼兒會適時創造或改變教師設定的活動，以符合遊戲的學習情境(Sander & Graham,1995)。

研究方法

本研究採質性研究之方式，想瞭解學生學習「幼兒體能與遊戲」課程的經驗歷程，參與此次教學過程的學生為實驗對象，以「幼兒體能與遊戲課程教學方案」為主，訂定單元目標：一、引發成員參與課程的興趣。二、以創作教學方法，瞭解學生對幼兒體能遊戲的認知。三、引導學生創造性之發揮。四、瞭解成員參與課程的期望與成效。於教學單元結束後隨機抽五位學生，採開放式問卷方式讓學生自由回答，藉以了解學生對創造性教學之感受，整理後，做為教師的省思及今後教學的參考。

一、研究對象

本研究的對象以國立花蓮教育大學體育系二年級選修「幼兒體能與遊戲」課程學生為主，共有 38 名，其中男生 27 名，女生 11 名。將學生分為五組，採自創性的課程設計及示範教學。本研究由五個分組中隨機抽出 5 名學生(每組一名)，以開放式問卷方式，瞭解學生學習「幼兒體能與遊戲課程」之後對體育系學生創造力的影響。

二、研究時間

本研究實驗課程實施日期：自 2004 年 2 月 16 日至 6 月 23 日止共十八週。

三、研究進行方式

本研究於開學前規劃實驗課程，前十二週為理論性課程教學，後五週為全體學生分組示範教學，規劃內容涵蓋：體能、球類、舞蹈、遊戲等各項教學，項目及內容各組自由選擇，亦可採綜合性的統整教學之教材編配，但是同組之間的老師每人要帶一項活動，同質性或異質性均可，同組之小老師可協助活動之進行。教學結束由教師講評、同儕相互評析與鼓勵，並於學期結束後隨機抽出五位學生(每組一名)，以開放式問卷方式蒐集資料，加以分析檢討。



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結果與討論

一、幼兒體能遊戲課程對體育系學生創造力的影響

(一) 體育系學生對幼兒體能遊戲的認知

透過遊戲讓幼兒學習到基本的運動能力，進而學習體育的相關動作，如：

「學習這課程可以給我們很大的啟發，一方面要顧忌到幼兒遊戲的趣味性還有安全性，而不是只有單單設計一個遊戲課程。」(004)

「幼兒體能與遊戲的課程主要是培養學生的創造思考能力，一開始老師先講解幼兒體能相關理論與訊息，由於對象是幼兒，所以在許多方面都會有多加的限制，講解結束以後，開始分各個小組進行課程設計與安排」(005)

「這門課讓我們瞭解幼兒的身心發展，以往小學的體育課程當中，大都以體育項目為教學內容，卻都忽略幼兒遊戲的重要性。因為有些幼兒的生理還未達到一定程度的發展，若以體育項目來教導學生，則有些較困難的動作，就會成為幼兒的負擔。所以先透過幼兒遊戲的方式，讓幼兒學習到基本的運動動作，再進而學習體育的相關動作。」(001)

「幼兒體育課程主要是讓小朋友身心發展健全，運用遊戲活動促進小朋友骨骼發展，提昇小朋友的反應，利用遊戲的方式也提高學生學習力與興趣。」(002)

「幼兒體能對兒童的發展是非常重要的，雖然在我們大專生的眼裡是既簡單又無聊的事，但是其中並不是那麼簡單，必須讓兒童產生興趣去參與這項活動，畢竟兒童只要感覺累就會厭煩，所以只是單純的體能是不可行的，我們可以利用遊戲的方式進行，使兒童能有效的運動，藉由遊戲來增加兒童的基本運動能力，例：123 木頭人就有運用到跑、平衡；捉迷藏：就運用到跑；跳格子：就有運用到跳的能力。」(003)

注意到兒童的發展層次，達到體能增進，也能快樂的參與，如：

「遊戲的趣味性：我們就要想如何讓學生達到最高點的時候，見好就換下一個遊戲，這樣才會使學生對你下一個遊戲充滿好奇心。」(001)

「另外也要注意到兒童的發展層次，比較小的兒童建議利用基本的跑跳活動；到了高年級兒童就可利用一些簡單的器材及簡單的設計來增加兒童的運動能力，例：擺設椎型桶，使兒童用蛇行的方式跑，像攻佔城堡就是屬於蛇行方式來跑，如果要提高難度的話，可利用側併步或交叉步等，以上活動不僅讓兒童達到體能增進，也能快樂的參與。」(003)



幼兒體能與遊戲的課程進行，重點在遊戲的設計和遊戲的執行

「剛開始我們爲了設計會參考教師指引之類的書籍，但未必那些課程就是有趣的，也有一些只是呆板的設計，但是也是引起我們另一個設計遊戲的起端。而且設計一個課程不是單單只試教小朋友玩遊戲，還要有敏捷的設計、平衡的設計，因爲這些都會影響他們發育的成長。」(002)

「幼兒體能與遊戲的課程進行，重點在遊戲的設計和遊戲的執行，通常會再參考過去執行者的遊戲執行方式之後，才引發設計遊戲者的思考方向，在有先例的情況之下，避免和先例衝突，必須要創新設計內容和方向，在創造的過程中，我認爲我們常常是先想到器具，在思考遊戲的方法，看著器具、拿著器具把玩，在慢慢的想到遊戲進行的方式、遊戲規則，一再地討論、試驗、修改，找出最適合小孩子的遊戲，是否要讓遊戲進階、挑戰並提高難度，計分的方式、獎勵小朋友的方式、管理現場秩序的方式，用老師提醒的方法和自己的想法串聯，執行之前、執行之中和執行之後，問題才會慢慢浮現，驗證自己的遊戲是不是能順利的執行。」(004)

「這堂課讓我學到很多東西，讓我學會了如何設計課程，這些都是我們將來需要運用到的東西，而這堂課讓我更能夠瞭解到小學生的活動是該如何設計，而不是像編寫其他課程一樣，因爲這課程是關係到小學生的運動能力，且又要注意到小學生在運動能力方面有著不相同的能力，更要讓遊戲流暢，讓學生不會太累且能夠安全的遊戲，所以想到的層面是面面觀，所以這堂課對我們來說是一堂非常重要的課程。」(005)

(二)幼兒與體能遊戲課程對兒童創造力的影響

幼兒體能方面：要注意到發展階段的不同，視幼兒表現而加以調整。

「幼兒體能方面：要注意到發展階段的不同，身體成熟能力不同，教學的目標、評量、內容方式也不同，視幼兒表現而加以調整，有什麼遊戲可以帶兒童玩的，像是捏黏土、摺紙、畫圖讓他們動小小手、小小腦、發展小肌肉活動，還有啓發性遊戲如：拼圖、連連看、數字遊戲等對幼兒智力發展有所幫忙；說故事給幼兒聽，也讓幼兒去思考、想像故事的情境，也有助成長；教唱：讓幼兒學習發音、律動感，學習童謠歌曲，讓幼兒接觸各種類行的機會；如音樂、藝術的欣賞；動植物的照顧；天文地質的探索；身體律動的練習等，可利用笑話、幽默的故事激勵幼兒創造力。」(002)

模仿、創造與抄襲的界定，可能讓真正有用心的學生對課程灰心，抹煞了學生創造思考的動力，但對於不合理或是需要改進的地方，還是會加以修改，雖然不盡然是自己的創意，但也會加入自己的想法。



「大部分的同學對於課程的設計都是第一次，難免會去尋找相關的書籍資料等等來做為範本。也由於這樣，許多同學會把手邊的資料稍作修改，就拿來上課試教用。雖然並無不可，但對於訓練學生創造思考能力這方面的目標，卻大打折扣。可是同學基本上是不會一字不漏的把書籍資料完全抄寫，對於不合理或是需要改進的地方，還是會加以修改，雖然不盡然是自己的創意，但也會加入自己的想法。」(001)

「我們要思考，而不是抄襲，遊戲設計這種東西，是不是超別人想出來的很難界定，只要改一點點部分，就可以說得過去……心態很重要，是不是用心，還是只是交代過去，讓學生自己設計課程，但是禁止抄襲，如果沒有確實執行，很有可能讓真正有用心的學生對課程灰心，抹煞了學生創造思考的動力，和現今的盜版問題一樣，鼓勵創作，卻被現實擊垮，花了長時間的創造出來的作品，得不到該有價值，一再被翻版、拷貝，創作者心灰意冷，創作的價值到哪去了？課堂上不也是如此，自己辛苦解題好不容易得到的答案，被別人偷看抄襲，公平性不存在，投機取巧的人，並不是沒有創造力的人，如果他們習慣了只拿結果這一部份，沒有經歷思考和自我摸索的過程，日子久了，依賴成性，擁有的東西都不是自己的，只知道答案卻不知道如何解釋過程，這種狀態是很可悲的。」(004)

個人創造力是來自於成長過程中，所累積的經驗，或是突然浮現的靈感。

「個人創造力是來自於成長過程中，所累積的經驗或是突然浮現的靈感，要設計小孩子的遊戲，難度由淺而深，項目由簡單至複雜，而且是可以達到運動和教育的效果，依照這個方向去思考。」(004)

「雖然在課堂上我們都會配合著試教的同學，因為所編排的教材適用年齡，都是以我們未來畢業所要進入職場中的小朋友為主，所以拿來用在同班同學身上有一點不適合，因為大家都是為了取勝而不去理會規則，在當中我們這些大朋友都玩得很開心，更何況那些小學生如果守規矩的話，一定有著不一樣的成果與表現。」(005)

「所以在過程中就是我們創造力的表現，而且我們看到什麼、想到什麼就可以跟遊戲結合在一塊，例如：看到一張椅子，我們就可以先選出一位王，之後下面的小兵跟國王猜拳，只要小兵贏了，國王就要讓為給小兵，角色便互換達到無論聰明的，還是教差的同學都是公平的。所以遊戲雖然是趣味性，但最後還是要公平競賽。」(002)

藉著分組討論和執行的過程中，抽絲剝繭後最後找到的結果，就是來自組員交叉思考後，得到的最佳原創。

「從個人過去的經驗抽出一部份來，集合組員的想法後就會有新的組合和新的遊戲方法浮現。因此，引導創造力的形成，不侷限在個人，也擴張到小組，多人的交叉思考，所以為什麼要分組方式進行有其道理的，經過大家討論可以發現自己沒有發現的問題，發現為什麼不可行的問題癥結，更進一步的思考，以創新的方法解決問題，創造力就在討論的過程裡，無形的被激發出來，所以分



組討論是必要的，藉著討論和執行的過程中，抽絲剝繭後最後找到的結果，就是來自組員交叉思考後，得到的最佳原創。」(004)

「很多時候可以透過一些這類的教學來讓大家學習更多，因為每一個人都要準備一項遊戲帶領學生、引導學生來進行活動課程，有時會發現意想不到的遊戲方法，往往在別人教學時會讓自己驚訝了，因為我們沒想到有些教法可以這樣的有趣！我們為什麼都不會有這樣的想法，所以讓我們又多學到了一些不一樣的思考方式與方向所以多多參考他人的意見可以使我們的思想變的更茁壯。」(005)

同學都以競爭的方式來帶小朋友遊戲，競爭遊戲盡量避免學生課後相處不愉快。

「我覺得教學對象最好不要以本系的人為主，可以利用外系或不認識的人為試教對象，這樣的效果可能會更好。且普遍的同學都以競爭的方式來帶小朋友遊戲，雖然可以引起小朋友的參與感，但是賽後會發生更多小朋友相處不愉快的情形應盡量去注意、避免。且要訓練試教同學的音量，因為每次上課不一定在教室內，所以在外面上課的範圍會比較廣，試教者相對的需要更大的音量。」(005)

遊戲的課程中可以讓小朋友有團體合作的意識，而不是孤軍奮鬥

「在遊戲的課程中也可以讓小朋友有團體合作的意識，而不是孤軍奮鬥，因為團結力量大，所以這又是引起我們另一方面的思考，怎樣才能達到同學之間彼此都相等。因為當老師在設計課程的時候，都是以最完美的結果來完成過程，因為沒有過程就沒有結果。」(002)

「試教者要遵守規定提前把教案交給老師，然後老師才能給予建議讓試教者修正，把缺點修改至最小，最後在試教課程中發揮最好的效果。」(005)

「這堂課我們都要用認真的心態去教學因為出去是教小朋友，不像在學校在教大人(同學)不能嘻嘻哈哈的，養成習慣後，試教者出去當教師之後往往會忽略小朋友的安全。」(005)

誠如 Guccione & Yawkey(1984)所言遊戲是學齡前兒童賴以成長並獲得智慧的最佳方法。遊戲提供兒童各種學習的機會不論是從生理上、心理上、認知、情意、社會、同儕的互動和情感的表達得以均衡發展。遊戲內容的多變化、創意結果，如同學生所說的：「有時會發現意想不到的遊戲方法，往往在別人教學時會讓自己驚訝了，因為我們沒想到有些教法可以這樣的有趣！」。

「在引導學生創造力的學習過程，採分組方式進行的原因是藉由，小組討論可以發現個人沒有發現的問題及問題癥結，更進一步的思考，以創新的方法解決問題，創造力就在討論的過程裡，無形的被激發出來，所以分組討論是必要的，藉著討論和執行的過程中，抽絲剝繭後最後找到的結果，就是來自組員交叉思考後，得到的最佳原創。」(001)



綜合以上；從學生的學習體驗所得到的認知，以及學期結束後，以開放性問卷方式，得到的結果發現：體育系學生在創造力的展現過程中，較喜歡團體創作，應用分組方式討論，在彼此交換意見及激辯中，發現個人沒有發現的問題及問題癥結，能更進一步的思考，集思廣益激盪出最佳創作，以創新的方法解決問題，創造力就在討論的過程裡，無形的被激發出來。體育系學生創造力的認知與多位學者之想法相符合，認為創造力是結合敏捷、流暢、變通、獨創、精進的特性，透過思考的歷程，發揮其好奇、想像、冒險、挑戰的人格特質，運用其習得的創造歷程表現出流暢、變通、獨創、精進的能力 (Jones, 1979; 張玉成, 1983; 陳龍安, 1984; 李錫津, 1987; Adams & Deborah 1998)。體育系學生創造力的學習過程，也得到相同的反應，因此，有異曲同工和相輔相成的效能，認為以多變化、活潑、特殊教材內容的設計，透過學習者的好奇、好動、冒險的精神，讓幼兒經由團體合作的遊戲方式，將社會價值觀的發展逐漸融入生活，體驗不同的學習效果，並給予所有學習者公平學習的機會，不因智能的差異或弱勢者，而失去學習的公平性，體育系學生學習「幼兒體能與遊戲課程」之後，對創造力的潛在能力的開發影響甚巨，凡事都會設身處地的為別人著想，一心一意的想給予幼兒最佳的學習環境和課程設計，也是本課程教學後始料未及的最佳回饋和欣慰的成效。

結論

本研究採用質性的研究方法，以事後回塑的方式，進行開放性問卷之填寫與學生的省思，所取得的資料加以分析探討。

(一)體育系學生對幼兒體能遊戲的認知：

1. 學習這課程可以給我們很大的啟發，一方面要顧忌到幼兒遊戲的趣味性還有安全性，而不是只有單單設計一個遊戲課程。
2. 透過幼兒遊戲的方式，讓幼兒學習到基本的運動動作，再進而學習體育的相關動作。
3. 注意到兒童的發展層次，達到體能增進，也能快樂的參與。
4. 遊戲的趣味性：如何讓學生達到最高點的時候，見好就換下一個遊戲，這樣才會使學生對你下一個遊戲充滿好奇心。
5. 幼兒體能與遊戲的課程進行，重點在遊戲的設計和遊戲的執行，參考過去執行者的遊戲執行方式之後，引發設計遊戲者的思考方向，再思考遊戲的方法，慢慢的想到遊戲進行的方式、遊戲規則，一再到地討論、試驗、修改，找出最適合小孩子的遊戲。

(二) 幼兒與體能遊戲課程對體育系學生創造力的影響

1. 幼兒體能與遊戲課程，要注意到發展階段的不同，身體成熟能力不同，教學的目標、評量、內容方式也不同，視幼兒表現而加以調整，
2. 模仿、創造與抄襲的界定；參考過去執行者的遊戲執行方式之後，但對於不合理或是需要改進的地方，還是會加以修改，雖然不盡然是自己的創意，但也會加入自己的想法。
3. 個人創造力是來自於成長過程中，所累積的經驗，或是突然浮現的靈感。
4. 藉著分組討論和執行的過程中，抽絲剝繭後最後找到的結果，就是來自組員交叉思考後，得到的最佳原創。
5. 同學都以競爭的方式來帶小朋友遊戲，競爭遊戲盡量避免學生課後相處不愉快。

6. 遊戲的課程中可以讓小朋友有團體合作的意識，而不是孤軍奮鬥。

本研究乃為體育系學生選修幼兒體能遊戲課程的教學訓練方案及學生創造性遊戲課程示範教學的實驗性教學，於學期結束後以事後回塑法的方式，藉以瞭解學生的學習成效，對其創造力的啟發情形，做為對教師教學的回饋及今後教學之改善之依據。由上述之研究發現：體育系的學生對幼兒體能遊戲的認知能注意到發展階段的不同，身體成熟能力不同，教學的目標、評量、內容方式也不同，視幼兒表現而隨時加以調整，找出最適合小孩子的遊戲，組員之間互相討論希望得到最佳原創性。體育系的學生在幼兒體能遊戲課程對兒童創造力的教材編制，能注意到因材施教，隨機應變改變教材，使兒童適應學習內容及避免課後延生的同儕衝突之問題，對初學者能思考精細、考慮周詳，實為一項重要的學習課題。

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