

The effectiveness of teaching games for understanding to promote enjoyment in teaching games of physical education lesson

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Abstract

Physical Education is one of the compulsory subjects in primary and secondary schools in Malaysia. The primary goal of Physical Education is to develop students in the aspects of cognitive, psychomotor, and affective. Teaching and learning of Physical Education should provide more opportunities for students to improve the efficiency of motor skills, movement, and maintaining physical fitness. The teaching and learning process must focus on students' learning to generate understanding, learning, and 'satisfaction. The failure to attract students toward Physical Education may affect the goals of the subject. Enjoyment is a crucial factor underlying exercise motivation and positive participation in both physical activity and Physical Education. 'Students' attitudes toward Physical Education are likely to be linked with their enjoyment in classes. Therefore, to achieve the goals of the subject, it is imperative to create enjoyment in the teaching and learning process. Hence this study to determine the effectiveness of teaching games for understanding to promote enjoyment in teaching games of Physical Education lesson. Eighty students from form Vocational College in Setapak, Kuala Lumpur, and one Physical Education teacher agreed to participate in this study. They were divided into two groups in order to compare two instructional approaches. The experimental group (A), 42 students, experienced Teaching Games for Understanding (TGfU), while the control group (B), 38 students, and experienced a technical-traditional approach. The study design was a quasi-non-equivalent group pre-test and post-test design. A pre- and post-test were performed on each group to assess the influence of the methodology used on students' enjoyment in Physical Education. ANCOVA analysis was conducted to determine the effectiveness of teaching methods toward student enjoyment in Physical Education. Results revealed that group A showed greater enjoyment in the class than group B. Significant differences were found in enjoyment.

Keywords: Teaching Game for Understanding, enjoyment, Physical Education, teaching method, traditional method.

INTRODUCTION

Physical Education is one of the compulsory subjects in primary and secondary schools in Malaysia. The goal of Physical Education is to develop students in the aspects of cognitive, psychomotor, and affective (Griffin & Sheeny, 2004). While the objectives of Physical Education to ensure the student has all the skills and knowledge for them to practice a healthy lifestyle in their daily life. The teacher

must focus on teaching and learning in Physical Education to catalyze understanding, learning, and student satisfaction (Coulter & Ni Chroinin 2013). Besides that, the failure to attract students toward this subject may affect the objectives in which is to develop physical fitness, the skill of movement and sports, and application of health and safety knowledge as a healthy lifestyle. Teaching and learning of Physical Education should provide more opportunities for all students to improve the efficiency of motor skills, movement, and maintaining physical fitness. One of the components in the Physical Education syllabus is games and sports. Game and sports are about 65% time spent allocate in the curriculum (Werner, Thorphysical & bunker, 1996). In Malaysia, 75 % of Physical Education syllabus in secondary school is about skills, which include gymnastics, rhythm movement, games, and athletics, while 25 % for fitness components. Basic skills related to sport and games are vital for the student to master, for that enables them to apply in games and sports activities. Therefore, skills are most important in Physical Education, which needs more attention from teachers and students.

Studies revealed that there was a decrease of students involved in Physical Education class, especially in the game and sports components due to lack of enjoyment in the lessons (Chen & Hypnar, 2015; Phillips & Silverman, 2015). Enjoyment in the classroom is an essential reason for students involved in Physical Education lessons. If the teacher can't provide fun learning, the students may not be interested in participating in Physical Education activities. A lack of fun is one of the crucial reasons why students stop participating in physical activity (Ewing & Seefeldt, 1988). Previous studies (Yli-Piipari, Watt, Jaakkola, Liukkonen, & Nurmi, 2009; Sallis, Prochaska & Taylor, 2000; Gourdas & Biddles, 1993;) revealed that enjoyment is a important factor underlying exercise motivation and positive participation in both physical activity and Physical Education. Studies also suggested that the increase of enjoyment in Physical Education, the more they tend to participate in physical activity (Woods, Tannehill & Walsh, 2012) and students attitude toward Physical Education are likely to be linked with their enjoyment in the classes (Subramaniam & Silverman, 2002). Therefore, to achieve the goals of Physical Education, it is imperative to create enjoyment in teaching and learning in Physical Education.

Enjoyment is a positive effect that reflects feelings, such as pleasure, liking, and fun (Scanlan & Simmons, 1992). While Foster, Behrens, Jager, and Dzewaltowski (2010) founded that enjoyment increased after games among children. Therefore, games are an essential component to attracts satisfaction in Physical Education classroom. Teachers need to find the best teaching method to teach games and sports in Physical Education to ensure the participation of students in Physical Education at a high level. A study by Carroll and Loumidis (2001) reported that girls' lack of enjoyment and engagement in Physical Education and Physical Activity could be related to the teaching method in Physical Education curriculum, which focuses on traditional team sports. Studies that have been conducted in Malaysia by Rengasamy (2008) and Wee (2001) debated about curriculum and how Physical Education should be taught in Malaysia. While, Wee (2008), stated new intervention and teaching method in Physical and Health Education is very vital and need to be implemented.

The teaching method and strategies are essential to increase student's participating and encouraging them to be involved in class activities (Kiat, Halim, & Ibrahim, 2015). However, teaching games in schools have emphasized the traditional approaches (Mezler, 2000), which is more focus on teaching specific skills and techniques, and highly structured lessons involving a warm-up, skills practices, and final game. Wright, Li, and Ding (2007) stated that researchers had emphasized the importance of rethinking and reorganizing the approach in Physical Education. Physical Education teachers should use the suitable instructional model and Physical Education pedagogical approach in providing efficient teaching games in this subject. Based on the previous studies, the teaching method in Physical Education is related to making Physical Education is more inspiring and enjoyable. Teaching and learning in this subject requires an efficient pedagogy to ensure students to stay motivated, fun, focus, and active through teaching and learning processes. Therefore, it is crucial for teachers should provide the best method of teaching in games and sports activities to fullfill the needs of students to enhance the participation and enjoyment in Physical Education lessons.

Limited Physical Education pedagogical practices combined with limited understanding of the concept of enjoyment by teachers (Mac Phail, Gorely, Kirk, & Kinchin, 2008) may be affected enjoyment in Physical Education class. Garn and Cothran (2006) have suggested that teachers need to use others approach to enhance enjoyment in Physical Education by developing a task-involving climate and student-teacher relationship. One Physical Education pedagogical model that should be considered by Physical Education teachers is Teaching Games for Understanding (TGfU). The main objective of TGfU is to promote learning in sport (ThorPhysical Education, 1986). There are a few studies showed that this Physical Education pedagogical model had been increased students' students' enjoyment in Physical Education. Therefore, this study was conducted to examine the effectiveness of Teaching Game for Understanding (TGFU) to promote student enjoyment in Physical Education class among student form 4 at Vocational College, Setapak, Kuala Lumpur.

LITERATURE REVIEW

Enjoyment in Physical Education

Enjoyment refers to an intrinsic and affective factor linked with motivation to involve in physical activity and Physical Education (Hashim, Grove & Whipp, 2008a; Dishman, Motl, Saunders, Felton, Ward, & Pate, 2005; Prochaska, Sallis, Slymen, & McKenzie, 2003). Enjoyment is essential in guiding students' motivation in Physical Education (Prochaska, Sallis, Slymen, & McKenzie, 2003). Previous studies have revealed enjoyment as a meaningful factor underlying exercise motivation for students to remain their positive participation in both physical activity and Physical Education (Smith & Pierre, 2009; Y Yli-Piipari, Watt, Jaakkola, Liukkonen, & Nurmi, 2009; Prochaska, Sallis, Slymen, & McKenzie, 2003; Sallis, Prochaska and Taylor, 2000;). Students who enjoy their Physical Education classes will most probably adopt Physical activity as a lifestyle and appreciate health and fitness benefits (Cairney, Hay, Mandigo, Wade, Faught, & Flouris, 2007). Two factors could affect the enjoyment, which is intrinsic, extrinsic, achievement, and non-achievement (Garn & Gothran, 2006).

Physical Education is one of the subjects which emphasize the learning domains in psychomotor, cognitive, and affective. This subject is categorized as the main subject and allocated in the students time table in the school. The Physical Education subject is crucial in producing a balanced student in various aspects such as physical, emotional, spiritual, and intellectual. This concept involves the development of well-rounded students. Therefore, Physical Education should provide efficient learning and teaching process to promote interest and motivation toward this subject. The students should experience enjoyable during activities to promote positive attitudes (Subramaniam & Silverman, 2002; Prochaska et al., 2003).

Enjoyment in Physical Education plays an essential role in the teaching and learning process. Enjoyment in Physical Education also will positively influence health and fitness by active participating in the class. Hence, the teachers need to play a role in influencing the involvement of students in the classroom by diversifying teaching methods. The diversity of teaching methods will enhance the students' enjoyment and thereby avoid the declining of participation in the class. Teachers are required to provide quality learning to achieve learning outcomes and make the student experience fun learning and active involvement.

Teaching Game for Understanding (TGfU).

The TGfU approach develops by Bunker and Thorpe (1982). The strategy places a different method of teaching games. TGfU is a model that fits the student-centred approach that puts the needs and abilities of the students first and in doing students' enjoyment and participation in Physical Education lesson. The method was also providing students with the skills they need to move confidently in a wide range of physical activities. In the game situation, tactics, decision-making, problem-solving, and skill is concurrently developed at the same time. TGfU provides students with a more substantive base and a more explicit frame of reference for learning games. The learning process that involves students will be more meaningful. This process allows students to make a decision and solve the problem. This approach suggests a game practice that is different from traditional games lesson formats that focus on skill practices.

Butler, Oslin, Mitchell, and Griffin, (2008), identified the basics of TGfU concepts; teach games through games, break games into the most straightforward format then increase complexity. Every student is talented and is involved. Students need to know the subjects matter and need to match their skills and challenge. TGfU is a teaching game rather than teaching sports or Physical Education specific skills (football, badminton, netball). Students gain skill and knowledge to apply the different sport skills by playing a variety of games associated with four games categories, which are target games, net/wall games, striking/fielding games, and territory games. These categories represent actual games and activities that are similar in structure. By exposing the students with the fundamental skills, primary rules, and tactical problems associated with each category, they will become more familiar in an actual game. This approach will increase the students' understanding and their ability in the games to enhance the enjoyment and involvement in the lesson and teaching activities.

TGfU is a student-centered approach where the teacher acts as a facilitator. At the same time, the students make adaptations to maximize the level of challenge and enjoyment during the activities. When using TGfU, the development of any game follows the model presented in Figure 1. The first phase of the model requires students to understand the form of the games before they can recognize the problem to be solved. The second phase is game appreciation. In this stage, the students trying to understand the concept of the game. Gradually, students will develop an understanding of the main rules, skills of the game. A problem-solving phase is a critical approach. The students are introduced to tactics through the gradual introduction of movement principles based on simple ideas and time. Students show a much greater understanding to perform the skill with the increase of the game appreciation. Thus, in the decision-making phase, students need to make an appropriate decision in executing skills.

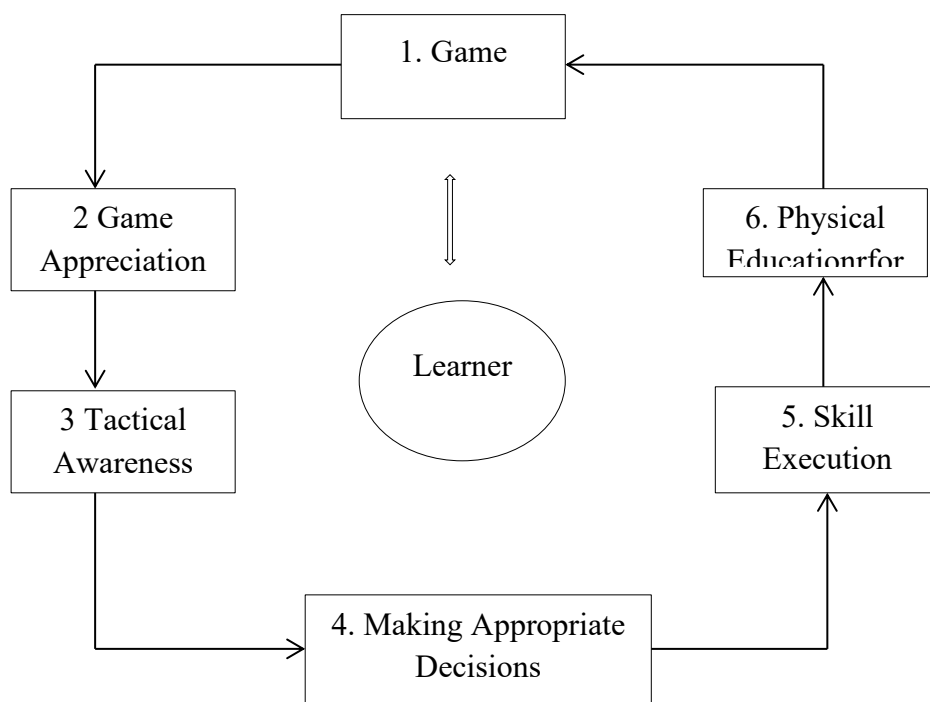


Figure 1. TGfU Model (Adapted from Werner, Thorpe & Bunker, 1996)

The model also emphasizes skill execution and game performance, but only after the students recognize a need for a particular kind of skill. Skill execution is used to describe the actual production of the required movements. It will happen when the students are ready for these skills within the context of a game (Werner, Thorpe & Bunker, 1996). The last phase is the performance. This phase is the observed outcome of the previous process. The performance is measured based on the appropriateness of the response and efficiency of the technique.

McKeen, Webb, and Peason (2007) states the aim of TGfU to encourage children to become more tactically aware and to make better decisions during the game. Additionally, TGfU also encourages children to begin thinking strategically about game concepts while developing skills within a realistic context and, most importantly, having fun. The impact of this approach will increase the enjoyment of playing the games (Thomas, 1997). According to Thomas (1997), the TGfU approach was found to encourage a holistic approach to the teaching of games, promote enjoyment for participants, promote student-centered learning, cater for varying abilities, and 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 (Werner, Thorpe, & Bunker, 1996). Critical outcomes of success in the teaching and learning process are students that can make successful decisions on the field and have an awareness of both technical and tactical of the game (Martin & Gaskin, 2004). Previous research revealed that students who are competent performed skills are more likely to enjoy sports and activities (Australian Sports Commission, 2005). Enjoyment and active participation in physical education lessons through playing games will attract students to participate in Physical Education classes. Australian Sports Commission (2005) reported that children who do not master the skill of the game are more likely to drop out of physical activity later in life. Therefore, the teacher must consider the TGfU approach to attract students to master the skills in the game and thus ensure active participation in Physical Education classes.

Light (2003) reported TGfU pedagogical approach increase enjoyment, understanding, and cognitive engagement in the games among students. While Mckeen, Webb, & Pearson (2007) also revealed that the level of enjoyment was greater in the lesson that followed the TGfU model than their level of enjoyment in the traditional lesson. The participants to be more enthusiastic, and the lessons appeared to be more fun and enjoyable. Most of the previous research reported that TGfU approach increases the level of participation in physical activity within the context of a Physical Education class (Renshaw, Araújo, Button, Chow, Davids, & Moy, 2016; Harvey, Song, Baek, & Van Der Mars, 2016; Fairclough, & Stratton, 2006). The enhancement in participating in physical activity during Physical Education level showed that students are interested and enjoy the activities in the Physical Education class.

METHODOLOGY

The study employed a quasi non-equivalent group pretest and post-test design. This design consists of two groups of respondents in which one group acts as the treatment group and the other as the control group. 80 form 4 students from Setapak Vocational College were selected as respondents in this study. Two physical education classes were selected, with 80 students as a sample of the study. Both the experimental group (N=42) and control group (N=38) went through the Physical Education syllabus of form 4 set by the Ministry of Education Malaysia. The experimental group underwent the passing and receiving skills in field hockey skills with the TGfU method for four weeks, while the control group went through the same skills using the traditional approach for four weeks. A Physical Education teacher who participated in the study were male and had over five years of teaching experimental in Physical Education subject. In this study, the Physical education teacher taught both groups at a separate time.

A pre- and post-test were performed on each group to assess the influence of the teaching approach used on student's enjoyment in Physical Education class by using the Physical Activity Enjoyment Questionnaire (Motl, Dishman, Saunders, Dowda, Felton, & Pate, 2001). Physical Activity Enjoyment Questionnaire (Physical Education version) as an instrument to measure enjoyment in Physical Education consist of 12-items rated on a five-point Likert Scale ranging from 1 ('dislike a lot') to 5 ('enjoy a lot'). The validity of the questionnaire and the measure of factors influencing the enjoyment of Physical Education were tested using confirmatory factor analysis. Structural equation modelling (SEM) was also performed to test the relationships among the measures of enjoyment of Physical Education (Motl, Dishman, Saunders, Dowda, Felton, & Pate, 2001) while the internal consistency of the questionnaire reported a Cronbach's alpha of 0.87.

In this study, The Physical Activity Enjoyment Scale (Physical Education version) was translated using back-translation. The instrument has been translated into Malay language and translate back to the English language to make sure the construct and item are valid. The instrument has been referred to four expertise (2 experts in language, 2 experts in sport psychology) to examine content validity. The formula proposed by Sidek Noah and Jamaludin Ahmad (2005) is used to determine content validity. Findings from expert showed the content validity is high ($r = .81$ and $r = .87$) for both language and content. The pilot study has been conducted to examine the reliability of the questionnaire. Sixty students form 4 from SMK Danau Kota, Setapak were selected randomly for the pilot test. The Cronbach Alpha coefficient is used to determine the reliability of the questionnaire. The results of the analysis showed that the reliability coefficient was $r = .89$ greater than $.70$

Instructional Intervention

Both groups received passing and receiving skills in field hockey. The main objective of the intervention was to ensure students should be able to pass and receive the ball in a field hockey game. The structural design of the TGfU group followed the structure suggested by O' Leary (2016). A game was modified to promote students' participation and interaction, teacher and students worked on tactical elements,

and selecting the technical elements necessary to perform the tasks. Priority was given to understanding tactical aspects, the game itself, reflection on errors, and acquired learning. Responsibility during the learning and teaching process was high, but there were no technical elements that limited practice. The relationships between the students were of great importance, showing that enjoyment outweighed performance. The students are allowed to modify the rules in real game situations and contexts. In the teaching and learning process, the student will involve in an activity like decision-making, problem-solving, and rules modification. At the end of the lesson, the student will conduct the cooling down session.

A formative assessment process was essential to stimulating student’s capacity — a lesson completed in 40 minutes. A control group followed the traditional method that is usually used in a physical education class. The method emphasizes the development of technical skills and teacher-centered decisions (Metzler, 2005). Each lesson includes an initial warm-up, skills, techniques, tactics development, mini-game of the sport in the central part, and cooling down at the end of the lessons. The teacher is responsible for every aspect of the lesson. Students only participate, follow the instruction, and perform the skills required by the teacher (Wirszyla, 2002). The methodology emphasizes the skills acquisition and mastery of tactic and technical aspects. These components more predominantly and apply in the mini-games. The responsibility of the students in the understanding and development of each game is of great importance. The teacher makes major corrections — a lesson completed in 40 minutes.

Table 2: Instructional Procedure of TGfU method and Traditional Method

Stages	TGfU Group	Traditional Group
1	<ul style="list-style-type: none"> • Warm- up activities • Students start playing modified games related to skill 	<ul style="list-style-type: none"> • Warm -up activities • Stretching
2	<ul style="list-style-type: none"> • Students play games and emphasize on passing and receiving in field hockey • Teachers observe 	<ul style="list-style-type: none"> • Teacher demonstrate the skill • Students practice in drill either in partner or alone
3	<ul style="list-style-type: none"> • The students and teacher investigates the tactical problems and potential solutions 	<ul style="list-style-type: none"> • The teacher provided skills feedback or asked a few questions to the students
4	<ul style="list-style-type: none"> • The students play modified games • The students and teacher modified the rules of the games 	<ul style="list-style-type: none"> • The students play mini -games are provided by the teacher.
5	<ul style="list-style-type: none"> • Cooling down – free movement • Reflection 	<ul style="list-style-type: none"> • Cooling down • Reflection

RESULT AND DISCUSSION

All data were analyzed using SPSS version 22. ANCOVA test was performed to determine the effectiveness of the teaching approach on student’s enjoyment in the Physical Education teaching and learning process between the control and experimental group.

The effectiveness of TGfU to promote enjoyment in teaching games of physical education lessons was measured by ANCOVA analysis. An ANCOVA analysis statistic was conducted after all the assumptions were met to evaluate the effects of the TGfU approach and traditional approach on student enjoyment in Physical Education sessions.

Table 3: Analysis Of Covariance Summary

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3626.776 ^a	2	1813.388	69.441	.000
Intercept	1030.711	1	1030.711	39.470	.000
scorepra	1795.282	1	1795.282	68.748	.000
group	1869.338	1	1869.338	71.584	.000
Error	2010.774	77	26.114		
Total	153042.000	80			
Corrected Total	5637.550	79			

Table 4: Estimated Marginal Means On Students's Enjoyment

Dependent Variable:scorepost

group	95% Confidence Interval			
	Mean	Std. Error	Lower Bound	Upper Bound
Control group	37.843 ^a	.829	36.192	39.494
Treatment group	47.523 ^a	.789	45.953	49.093

a. Covariates appearing in the model are evaluated at the following values:
 scorepra = 39.6250.

The results in table 3 reveal that there was a significant difference between the experimental group and the control group in enjoyment on the post-test total score ($F(1, 77) = 71.584, p < .05$). This result indicated that the experimental group with the TGfU approach has significant main effects on student enjoyment compared to the traditional approach. Table 4 reported that the overall mean of students with the TGfU approach (Adjusted mean $M = 47.52$) was significantly higher than the control group, which applied traditional (Adjusted mean $M = 37.84$).

CONCLUSION

The findings of the study showed that the TGfU approach had increased the enjoyment of students in the Physical Education class. As a result, a physical educator needs to consider this approach when teaching this subject, especially in the teaching game. The increase in enjoyment in Physical Education will result in regular physical activity among the students.

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