

# TEACHING GAMES

## FOR UNDERSTANDING

### USING

#### PROGRESSIVE

##### PRINCIPLES OF **PLAY**

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*Enseigner les jeux de manière à ce qu'ils soient compris (Teaching Games for Understanding - TGFU) est une approche qui soulève un grand intérêt au Royaume-Uni et aux États-Unis. Un des éléments de base de cette approche consiste à enseigner la tactique d'un jeu avant les habiletés techniques qu'il requiert. Cet article présente un système de classement des jeux selon l'approche TGFU (Werner, Thorpe & Bunker, 1996). Ce système de classement explique comment on peut utiliser les principes des jeux pour planifier des jeux de nature de plus en plus complexe à l'intention des novices et des participantes et participants expérimentés. L'article suggère des règles de base pour les jeux de chaque catégorie justifiant les principes de progression des jeux. Il présente un aperçu des jeux de chaque catégorie en donnant un exemple détaillé des jeux au champ et au bâton décrits. En conclusion, cet article stipule que l'enseignement des jeux fondé sur les principes de progression des jeux permet aux apprenants et apprenantes de comprendre les exigences des jeux et l'enthousiasme qu'ils suscitent, ce qui les motive à vouloir jouer et à faire des progrès.*

*By Timothy Hopper*

**T**eaching games focusing primarily on technique is an approach that dominates most physical education programs. However, a main problem with this approach is that many students do not improve enough to find enjoyment in games, and thus make them a part of their healthy lifestyles. Teaching Games for Understanding (TGFU) is an approach that has been developed to help overcome this problem. TGFU suggests a way of enabling students to appreciate the joy of game playing that leads to a desire to learn techniques that will improve game performance.

This article suggests progressive principles of play that extend existing work in the teaching games for understanding approach (Spackman, 1983; Thorpe, Bunker, & Almond, 1986; Werner, Thorpe, & Bunker, 1996). Spackman (1983) defines principles as primary elements of play such as possession, invasion and scoring in games like football and rugby. The primary elements of play are formed by the physical properties and primary rules of games as defined by two game classification systems (Ellis, 1983; Thorpe, et al., 1986). These game classification systems identify four game forms: target (e.g., curling, lawn bowls, golf), court or net/wall (e.g., tennis, squash), field or striking/fielding (e.g., baseball, cricket) and territory or invasion (e.g., rugby,

football, basketball). Figure 1 summarizes progressive principles of play based on the game classification systems. For territory/invasion and striking/fielding games the principles are considered in relation to players when they are trying to score (attacking or batting) or trying to stop the opposition from scoring (defending or fielding).

#### **The Teaching Games for Understanding (TGFU) Approach**

Bunker and Thorpe (1986) describe the TGFU approach as game-centered games teaching where the WHY of game playing is taught before the HOW of skills to play the game. This process involves teaching children a modified or simplified game that is suitable for their physical, social

Figure 1: Suggested progressive principles underlining the tactical play within the four games categories.

G A M E C A T E G O R I E S					
TARGET	NET/WALL	STRIKING/FIELDING		TERRITORY/INVASION	
		Batting	Fielding	With object	Without object
1. AIM to target	1. CONSISTENTLY return the object	1. SCORE RUNS	STOP SCORING RUNS	1. SCORE	STOP SCORING
2. PLACEMENT in relation to target and other obstacles	2. PLACEMENT of object and POSITIONING based on placement	2. ACCURACY AND DISTANCE OF BALL HIT	MAKE HITTING THE BALL DIFFICULT	2. INVADE	STOP INVADING
3. SPIN and/or TURN	3. SPIN and POWER	3. AVOID GETTING OUT	GET BATTER OUT	3. KEEP POSSESSION	GET POSSESSION

and mental development. In such a game, children gain an appreciation for the demands of an adult game. This appreciation helps the children to realize tactical awareness of how to play a game to gain an advantage over their opponents. With tactical awareness, children are capable of making appropriate decisions about "what to do" and "how to do it." For children, increased decision making encourages them to become more aware of the possibilities innate in their game playing. This leads to more meaningful learning as they enter into practice situations to develop either a technical skill (i.e. trapping a ball, placing spin on a shot), or a strategic maneuver practiced to gain a tactical advantage (e.g., hitting the ball short then long in tennis, using a fast break in basketball).

Thorpe and Bunker (1989) explain how games teaching strategies of sampling, modification through representation (a simplified game), modification through exaggeration (e.g., a long and thin area of play in net/wall games) and games focused on certain tactical complexity allow children to become active decision makers in their own learning. In TGFU, learners recursively evaluate and develop their own performance within game

playing situations that gradually, under the guidance of the teacher, evolve towards the sophisticated adult games.

### Primary Rules that Define the Four Games Categories

Two popular game classification systems are based on physical properties (Ellis, 1983) or primary rules (Almond, 1986; Werner, et al., 1996). Both classification systems produce four broadly similar categories. However, the notion of primary rules has led to the development of core playing principles that are common to games within the same category. These primary rules for the four game categories are:

- (1) In striking/fielding type games:
  - (i) batting players create opportunities to score by hitting balls out of an area of play, and
  - (ii) batting players score by running between safe areas without the ball being caught on the fly by fielding players, or the ball reaching the safe area before the batting players.
- (2) In target type games players score by avoiding obstacles to get their objects closer than their opponents' to the target.

- (3) In net/wall types games, players try to get the objects into their opponents areas of play more often than their opponents return the objects back into their areas of play.

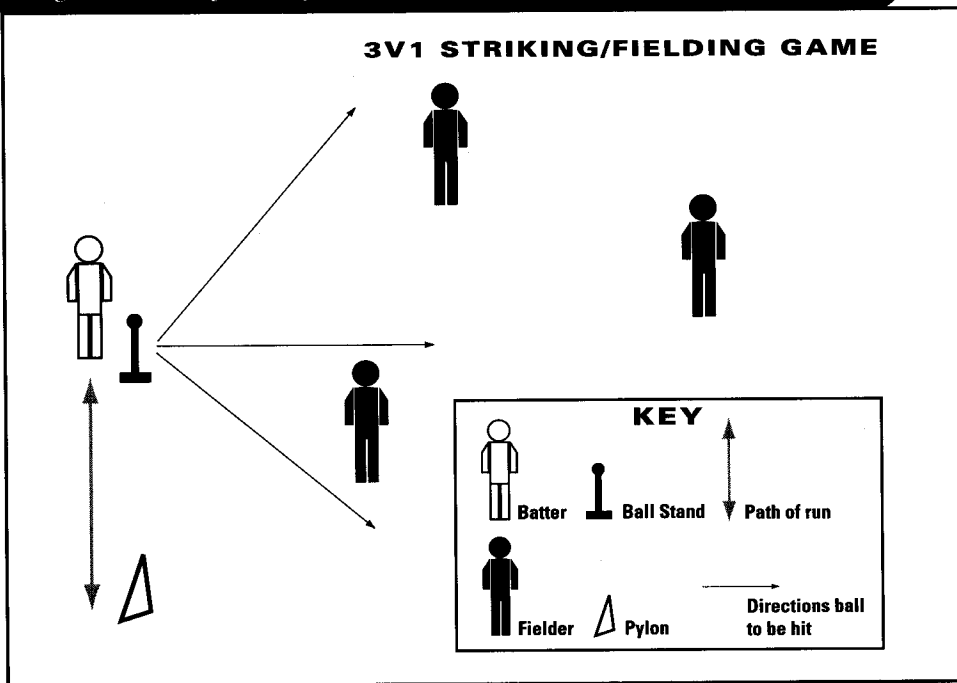
- (4) In territory/invasion type games:

- (i) players with the ball score by getting the object within the opponents' focused or open end target, and
- (ii) players without the balls stop the opposing players from scoring without making an illegal physical contact.

### Principles Based on the Primary Rules of Games

The primary rules lead to common principles shown in Figure 1 that structures the play within games of the same category. For invasion type games, Booth (1986) and Spackman (1983) have both shown how the principles of "possession", "invasion" and "scoring" can be taught through modified games and problem setting questions that lead to tactical solutions. In net/wall type games, Hopper (1994) explains how the principles of "consistency", "placement" and "positioning" can be developed through simplified games with two players using a bowling pin as a target, a

Figure 2: Striking/fielding type game of one batter against three fielders



slow bouncing ball and two short handled racquets. Similarly, in net/wall type games, Thorpe (1983) explains how tennis can be taught based on the principles of being able to rally the ball (consistency) then working on defensive and offensive positioning based on the placement of the ball. Considering striking/fielding type games, Bunker (1986) offers an insight into modifying cricket to allow players to appreciate how field placements can stop the opposition from scoring and/or increase opportunities to get them out. Using this approach Bunker also explains how the batting team can learn how to hit the ball in order to counter the strategies of the fielding team.

For target games principles of "aim to target", "placement" and "spin and/or turn" were formulated based on my own play and teaching. For example, in golf a player has to be able to putt the ball into or near the hole target that is close (aim to target). Then, a player can play on a golf course where the route to the hole has to be planned based on distance and obstacles (placement). With these principles appreciated and the skills refined to achieve the principles, a player can then control the ball by turning it in the air to avoid obstacles by using the wind and the action of the club face on

the ball. Also a player can start to appreciate the need to spin the ball to control its landing and roll by using the club face to put differing degrees of underspin on the ball.

These principles of play were found to be particularly useful in shaping the progressive development of modified games within each category. Considering these principles of play, games teaching tactics can be taught through movement concepts based on simple ideas of space, time and force. For beginners, the principles of play offer a progressive way to develop the type of tactical depth only experienced by the skillful performers. For example, in a striking/fielding type game shown in Figure 2, a batter is against three fielders. The batter can score by hitting an air-ball or a dense sponge ball off a ball-stand into space, then running from the ball-stand to a pylon and back before the fielders get the ball back to the ball-stand. The fielding players figure out ways to cover the space where the batter likes to hit. In the field the fielders have to work out where to stand to cover the space where the ball is likely to go. When receiving the ball near the ball-stand the fielders need to work out how to cover the space behind the receiver of the ball. The batter needs to consider the force he or she uses to avoid

being caught and to maintain accuracy, then how much time is needed in order to make one or two runs between the ball-stand and the pylon. The fielders need to return the ball quickly (time). The fielders also need to regulate the force they use to return the ball to the receiver based on their throwing accuracy and the receiver's likelihood of catching the ball in time to get the batter out.

All the tactical decisions are made from an appreciation of the batting principles of "SCORE RUNS", "ACCURATELY HIT BALL" and "AVOID GETTING OUT" and the fielding principles of "STOP SCORING RUNS", "MAKE HITTING THE BALL DIFFICULT" and "GET BATTER OUT". The game can become more challenging for the batter by making adaptations such as allowing a fielder to pitch/bowl the ball for the batter to try and hit. As children appreciate these principles of play, they understand why they need certain skills like throwing accuracy and distance, or batting grip, swing and follow through for accuracy and power to play effectively.

### Principles of Play and Game Invention

The primary rules give the games in each category a particular characteristic. Games within the game categories also have secondary rules that make them distinct from other games within the same games category. For example, a consideration can be given to how different the rules are for the size of the playing area, scoring systems, number of players, restarts, violations, penalties, object and equipment between games within the same games' category. It is these secondary rules that have evolved and keep evolving within each game to make the games fair, exciting and unique. Once the primary rules for a game have been introduced and understood by players, the secondary rules of games can be established as the need arises. This idea works well with game invention lessons (Curtner-Smith, 1996; Rovegno & Bandhauer, 1994), and I have found it to work particularly well when players of different abilities are taught tactical ideas. As in the fielding/striking example above,

players come to understand the basic principles of play from the primary rules. Secondary rules such as size and shape of playing area, hit the wicket or three strikes to get a player out, can be added to develop the game play towards cricket or baseball respectively as the players' abilities advance.

## Learners' Cognition and Games Teaching

In a TGFU approach, learners become aware of the need for certain skills. In the fielding/batting example, the players become aware of the need for accuracy with their batting and throwing skills. These skills can be taken out of the game. The players can improve skills in practice situations then return to the modified game where they can try to utilize their refined skills. This process is particularly effective when the learner independently decides when to return to the game and when to practice a skill. This approach works well when learners are on their own or in small ability groups. Enabling learners to make appropriate decisions based on the demands made by their environment is recognized by current constructivist and neurological cognitive theories as the ideal situation for meaningful learning (Caine & Caine, 1994; Varela, Thompson, & Rosch, 1991). This process also implies active

lifestyle principles where children are learning to take responsibility for making appropriate decisions based on their perceived needs.

TGFU approach also connects to schema theory (Schmidt, 1976). Due to the similarity between games within each game category, an understanding of the principles that govern participation within one game allows the same principles to transfer to another game within the same category. In agreement Buck and Harrison (1990) and Pigott (1982) argue that based on schema theory, tactical principles can be transferred from one known game to new but related games.

## Conclusion

By using principles of play to structure the planning of games lessons, the teacher is encouraging learners to become effective decision makers and intelligent performers (Kirk, 1982). Such performers become players who can adapt and read the complex demands of game playing within progressive game structures.

The secondary rules within games gives each game its unique tactical and technical skill demands, but the primary rules develop the essential principles that are common to games within the same

category. It is the primary rules that should be taught to beginners first in modified game structures so that they appreciate the principles of play that frame effective game play. Secondary rules should be developed by the teacher and the players as the players' skill level and understanding demands. For example, the size of the area of play can be increased toward the full adult game when players are able to utilize the increased space.

As Werner, et al.(1996) has commented "the primary purpose of teaching any game should be to improve students' game performance and to improve their enjoyment and participation in games, which might lead to a more healthy lifestyle". Performance comes not from a reliance on technical skills, but from a foundation of game play awareness leading to the adoption and adaptation of technical skills within the strategic and tactical demands of a game. Progressive principles of play offer a way to develop players understanding of game play. When learners appreciate the demands of a game and are able to recognize how they can meet the challenges through play and practice, then game playing can become a fun and healthy habit for every learner.

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