Space the First Frontier:
Tactical Awareness in Teaching Games for Understanding

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You are in the gymnasium teaching floor hockey to a grade four class. Have you ever caught yourself calling out to the students "spread out" while they are playing a game? Or, while on the soccer field with a grade seven class, have you ever found yourself repeating the phrase "move into the open to get a pass?" We suggest that as physical education teachers we should be teaching our students how to use space in order for students to become better games players. Space, however, is just one of the tactical awareness components in games that students need to learn about.

In this article, we draw on Hopper's (1998) principle of play model and focus on games associated with the territory/invasion category of games. This model integrates the physical properties and primary rules of games as defined by two earlier game classification systems (Ellis, 1983; Thorpe, Bunker, and Almond, 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).

Teaching games should draw on basic schema theory (Schmidt, 1976), where principles and concepts from one game can be transferred to other games with similar structures and goals.

Teaching Games to Children.

Teaching children to be effective games players is a complex task. Teachers should have a keen understanding of child development and an understanding of not only how to perform the motor skills utilized in a game, but the tactics/strategies associated with playing that game. Teaching elementary school children to be better games players is vital to give them the foundational skills and understanding to be competent and willing players in their middle, junior and high school years. The key to helping ALL children enjoy games is teaching ALL the children how to play.

When teaching a game, teachers often have the students practice the motor skills used in the game and then expect them to be able to play the game. This is often referred to as a technical approach to teaching games. The method we suggest shows how to teach students to be better games players by designing the learning environment so that both the motor skills and the tactics/strategies of the game are learned. Through guided questioning, students' abilities to play the game can be challenged and developed.

A major assumption of this approach to teaching games is that teachers must select a game that matches the developmental needs of the students. Textbooks such as Kirchner (1998), Rink (1997), and Wall & Murray (1994) show how the major games (i.e. football, tennis, softball, soccer, etc.) played in society can be developmentally modified. To do this, the teacher can modify five game components:

(1) The size and shape of the playing area.
(2) The sizes, weight, texture and speed of the object.
(3) The number of players.
(4) The rules of the game.
(5) The size, shape and type of equipment (if any) to be used.

By changing one or more of these components, the physical and cognitive challenges of playing a game can be reduced or increased.

Developing Spatial Concepts in Territory or Invasion Games

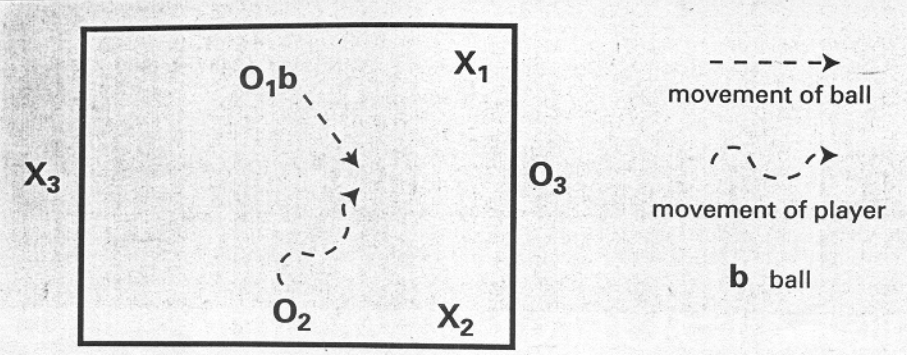
Although force (how much, how to apply, how direct) and time (when to create, when to reduce) also define some of the tactics/strategies used in playing games (Hopper and Bell, 2000), the use of space in a game can be introduced to children early so that they can begin to appreciate this part of tactical game play as a pre-requisite for understanding time and force dimensions.

Whenever we play a game, the space we occupy, the space we can move into, the space other players occupy or can go into, and the space the object can go into often dominate the decisions we make as games players. We will use a lead-up game from the territory games category (i.e. rugby, soccer, basketball type games) to show how spatial concepts can be developed. As noted by Hopper (1998),

Knowing how to use space while playing a game is fundamental to being an effective games player. This article describes a method to design the learning environment so that students learn not only the motor skills but some of the tactics and strategies associated with playing a game. A lead-up game from the territorial games category is used to describe how teachers can teach students how to use space more effectively when playing games of this type. Specific activities are identified for each of the three principles of play associated with territorial games.

Pour être un bon joueur, il est essentiel d'apprendre à utiliser à bon escient l'espace de jeu. Cet article décrit une méthode pour définir le contexte d'apprentissage, afin que les élèves n'acquièrent pas seulement des habiletés motrices mais apprennent des tactiques et des stratégies qui leur permettent de mieux jouer. Pour ce faire, on organise des joutes simulées d'un jeu quelconque à caractère territorial pour monter aux enseignants comment enseigner aux élèves à utiliser l'espace de façon efficace lorsqu'ils s'adonnent à ce genre de jeu. On identifie des activités correspondant à chacun des trois principes qui sous-tendent les jeux de nature territoriale.

Figure 1: Alley Ball



O_1 in possession of ball can't move when in possession of the ball. O_2 moves to recieve pass. O_3 is the goal-taker.

To play the game, three rules are needed:

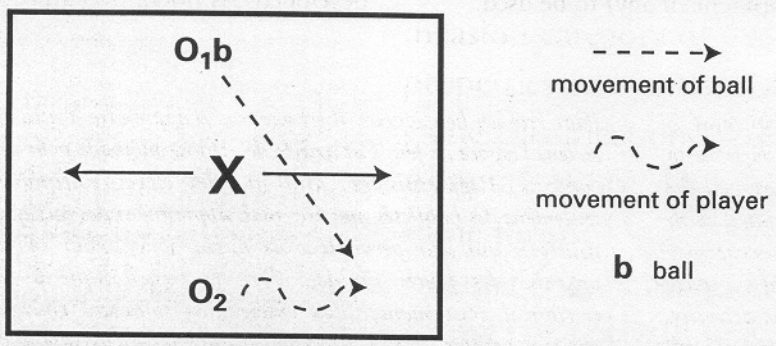
1. Players cannot move with the ball (focus on passing and moving).
2. If the ball goes out of bounds, the opposition passes the ball in from the side.
3. If a team scores, the passing player swaps with the "goal-taker" and the rest of the team retreats back to their own goal area before coming out to defend (this encourages a quick transition from attack to defense).

depending on whether you have the ball or not, the key principles of play for games in this category are maintaining possession/obtaining possession, invading/ stop invading, and scoring/stop scoring.

An example of a lead-up game in basketball for grades 4-6 is 3 on 3 "Endball". In this game, the class is divided into groups of six and each game has a section or alley in the gymnasium in which to play. The aim of the game is for the players to score by passing the ball to a teammate who must stay at the opposite end of the alley. This player acts as a "goal-taker" (see Figure 1). Two players from each team are in the playing area trying to move the ball from their end to their opponents' end of the play space.

As can be seen in Figure 1, this game structure creates a 3 vs. 2 situation which will increase the scoring opportunities. Making the goal area the entire width of the alley and allowing the goal-taker to move along this space to receive a pass can also increase the amount of scoring. To ensure better passing, the teacher can add a rule that allows passes over the heads of the defenders. Rule 3 gives the new offensive side freedom to begin invading the other team's goal area.

Figure 2: 'Triangle' Support



O_1 in possession; O_2 moves to form a triangle with O_1 and X. X must defend the ball but can only move sideways.

Keeping Posession

Most students in this game situation have difficulty locating and moving into open space to receive a pass from a teammate. Often they do not realize that by moving into open space they create some space into which their partner can move. Typically, team players on offense end up making a straight line with the defenders in between them and everyone stands still.

To focus attention on the invasion games principle of 'keeping possession', a teacher might ask: "Where should you go to receive a pass from your teammate?" A possible answer might be "move away from behind the defenders." This will lead into the tactic of making a triangle to support the teammate with the ball (see Figure 2).

Practice Setting 1

If students are having difficulty getting into the open to receive a pass, take them out of the game and set up four cone grids approximately 3m by 3m with three people to each grid (see Figure 3). Players X_2 and X_3 are on 3 different cones. In this set-up have the students pass the ball to a teammate (a simple throw and catch can be used), then locate the empty cone and move to the empty cone. Once they are able to locate where the empty space is, you can introduce a defender (3 vs.1). The defender must always go to the person with the ball who now must look for the open teammate and then move to the open cone. Initially, make the defender passive (not trying to get the ball), then allow the defender to walk and eventually when the passers are successful, let the defender

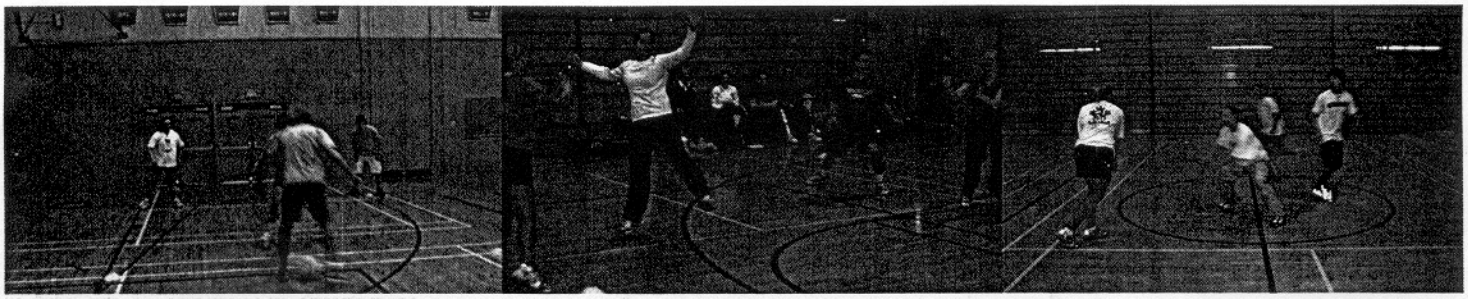


Figure 3: 3 vs. O Grid

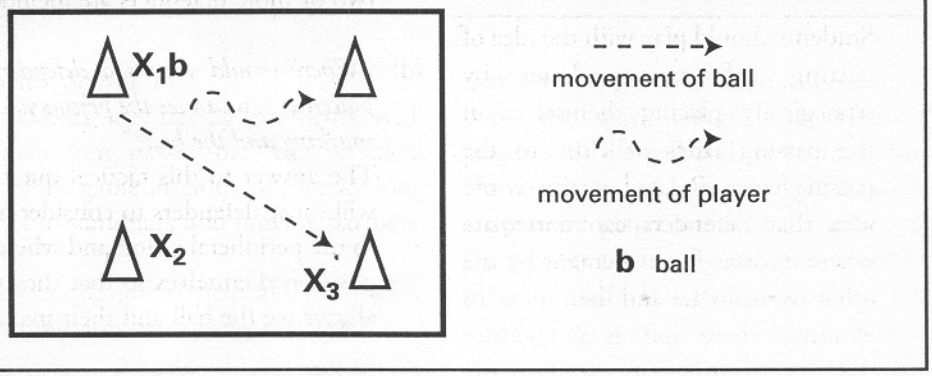
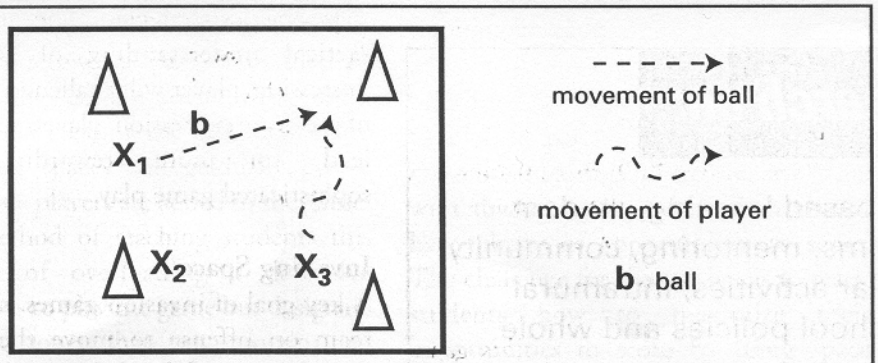


Figure 4: 3 - vs. 1 Inside Grid



O-defender must always go to the person with the ball.

run. If the passing players are able to keep the ball, add another defender to make maintaining possession more difficult. If the defenders are also successful, then encourage success for the passing players by enlarging the grid.

The questions that you want students to answer are:

1. Where is the open space?
2. Where am I in relation to the person with the object (close, far away, in front, behind, beside) and the defender(s)?

Once players have passed and moved in the grid, return them to the "End-ball" game to see if special understanding has transferred into the game. If students still struggle to make successful passes, place conditions on the game play with ideas such as having the defenders walk or reducing the number of defenders.

Practice Setting 2

A more complex practice situation for students to learn about moving into open spaces to receive a pass is to use the space inside the cones or grid. Students no longer have a cone to designate the open space, but must read where this space is relative to where the other teammates are. Again, if a defender is introduced, it will further complicate where this open space is. However, if players use the idea of locating and moving into space and pass with appropriate force and timing, this complexity becomes possible. Some groups may need practice passing the object and learning to fake a pass to work in this game structure. Often we use a beanbag as the object to help students to work in pairs and get success at simply passing and moving to receive a pass. Then we return them to the more complex grid practice.

Practice Setting 3

The most complex way to see if the students are able to locate and move into open space is to have each group of three pass the ball as they move up the alley in the original game. One and then two defenders can be added in this practice setting.

Once students are placed back into the game, the challenge will be to maintain possession by locating and moving into open spaces to receive passes from teammates.

Obtaining Posession

While in the game, the defenders will need to figure out how to get possession of the ball or, in spatial terms, how to deny space and defend space? If the defenders are having difficulty obtaining possession of the object, the teacher can ask the following questions:

One of the biggest challenges for students playing invasion games is learning what to do when they do not have possession of the object.

(a) *"How can you give the impression that the person you are checking is open but then quickly deny that space?"*
Students should get the idea of laying off their check, but when the object is about to be passed, quickly closing the space to intercept the ball.

(b) *"How can you cut off the passing lanes available to the offensive team?"*
Students should play with the idea of cutting off passing lanes by strategically placing themselves in the passing lanes or close to the passing lanes. Related to this is the idea that defenders can anticipate where options for movement by the offensive team are and then move to eliminate these options and reduce the opportunities for support by opposing team members.

(c) *"What playing areas can be left unguarded?"*
The answer to this tactical question focuses attention on where to place defenders to maximize the interception of the ball while leaving some other areas unguarded. The notion of overloading certain areas to prevent movement of the object can be explored, as can the defensive strategy of double teaming the person in possession of the ball when two or more defenders are included.

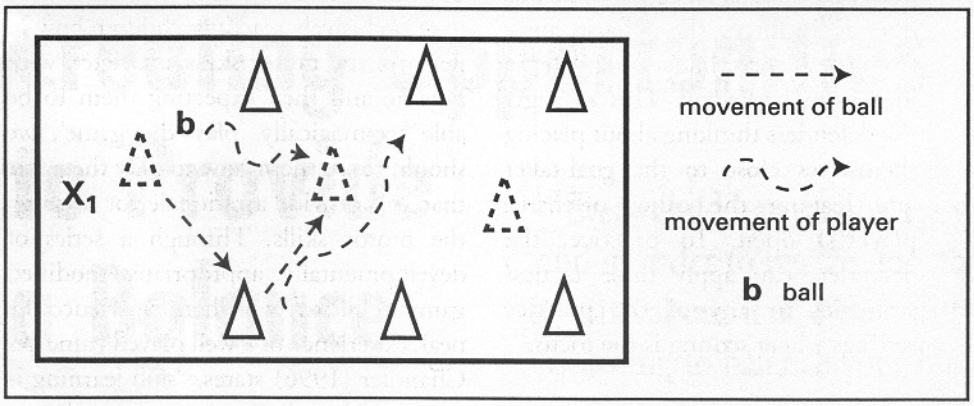
(d) *"Where should you as a defender be placed so you can see the person you are marking and the ball?"*
The answer to this tactical question will cause defenders to consider how to use peripheral vision and where to position themselves so that they can always see the ball and their mark.

As you introduce defenders into the three practice settings discussed earlier, have the defenders focus and practice these tactics/strategies. The increased tactical understanding of the 'get possession' player will challenge the play of the 'keep possession' players. This will lead to more rewarding and sophisticated game play.

Invading Space

A key goal of invasion games is for the team on offense to move the object into an area of the defensive side that will maximize scoring opportunities. The teacher needs to get students thinking about how this can be done effectively. The teacher can ask specific questions, such as: "How can we move the ball from our end to our scoring end quickly?" This will get students thinking about the fast break strategy. For example, in the "End-ball" lead-up game, rule three indicates that after a point is scored the team that scored has to run back to their goal line before coming out to defend. This rule encourages one of the players from the team that was scored upon to run quickly to their scoring end to be ready for a long pass.

Figure 5. - Invading Space in Allies



Practice Setting 1
If students are having problems with accurate long passes, they can be taken out of the game situation to practice long passes to stationary and moving partners.

Another question to help students invade space is "How am I using the width and depth of the playing area to open up the space?" This will cause the students to think about how close they need to be to support the teammate with the ball and when it is appropriate to move further away to receive a pass. The idea of overloading certain areas with more players and creating less defended, more vulnerable spaces will gradually evolve once more players are added to the game. One method of teaching students this concept of overloading a defensive position is to play the game but designate grids or zones that can contain two offensive players with one defensive player.

Practice Setting 2
Students can be placed in alleys without defenders and simply practice moving the ball up the alley by passing and moving to designated cones in order to receive a pass. Eventually the practice can be extended to pass and move up the alley without cones. A key concept in these practices is the idea of "pass and move in order to invade."

Stopping Invasion
Many of the strategies outlined in the section on obtaining possession can be used to stop invasion. The difference is that defending players need to be able to cover the space behind the offensive player with the ball and try to mark the players that are open for the ball. As well, a defensive player needs to be aware of the strategy that as the ball gets closer to the player (s)he is marking, the closer the defender must be to his/her mark. Any of the practice settings that have been mentioned in which the ball is moving up the play space can be used to develop the tactics/strategies associated with stopping invasion.

Scoring
One of the parts of games students love the most is scoring. Therefore, any game with this age group of children should have plenty of opportunities to score. The challenge for the teacher is to teach students how to maximize their opportunities to score by using space effectively. The following are some of the questions that will focus students' attention on these tactics:

(a) *"How far away should the goal-taker be to receive a pass to score a point?"*
The answer to this tactical question will show students which playing areas are high percentage scoring areas (the closer to the goal-taker the better). These areas will become the high priority space to which the ball should travel after invading the defenders' play space.

(b) *"What are the best angles from which to pass and score?"*
As students explore the answer to this tactical question they will realize that the scorer does not necessarily have to be right in front of the goal-taker. There are other angles to score from. With the goal-taker able to move along the end line, students should realize that the range of angles from which to score is much bigger.

(c) *"How can you create space around the high priority scoring areas?"*
Students will gradually realize that in order to create some space for a teammate to score, they need to move themselves and their defender away from the high score area and away from the goal-taker. This will prevent their defender from intercepting a pass to the goal-taker. The goalie can also play a role in determining high score areas by moving along the goal area. If the offensive players are in one space and the keeper moves away from this space, there is an opportunity to open up space and create scoring opportunities. These insights will develop the tactic of strong and weak sides in attack.

A second challenge is knowing what to do in making good decisions when they have possession of the ball.

Practice Setting 1
Without defenders in the practice, have students pass the ball around to see how many different routes the ball can be passed to get into the high percentage scoring areas. Defenders can gradually be added.

Practice Setting 2
Have two offensive players and the goal-taker work against two defenders. As the ball is passed between the offensive players, the goal-taker should look for opportunities to get into an open space (get open) based on where the defenders are. This may mean being close to the ball or being far away.

Stopping Scoring

In any game, the defenders try to take away the tactical advantage that the scoring team wants to implement. Teachers can ask the following question to get defenders thinking about how to defend the high priority scoring areas:

(a) *"Where should you place yourself as defenders to take away the high scoring space?"*
Students will quickly learn that when trying to stop scoring, they should place themselves in the high percentage spots. In effect what this does is it forces the offense away from these areas, like a zone defense idea from basketball. This may get the defenders thinking about placing themselves close to the goal-taker and leaving the other offensive player(s) open. To practice, the defenders can apply these tactics/ strategies in any of the practice settings where scoring is the focus.

As students get more proficient at playing the 3 on 3 game, the structure of the game can be changed by increasing the play space or restricting the goalkeeper's movement to make it more difficult to score. Adding movement can also create complexity when you have possession of the object (e.g. dribbling, cradling).

Conclusion

By manipulating the components of a game and setting tactical problems, a teacher can teach from a game and develop effective practice situations that return to a game. This belief has gained growing acceptance in the Teaching Games for Understanding (TGFU) literature (Bunker, Thorpe, Almond, 1987; Bunker & Thorpe, 1989; Turner & Martinek, 1996). Simply stated, rather than exclusively teaching children how to perform the motor skills associated with a game and then expecting them to be able to magically 'play the game', we should teach them how to play the game that will provide a rationale for learning the motor skills. Through a series of developmentally appropriate, modified games, children will then experience the peak experience of a well played game. As Chandler (1996) states, "skill learning is not for playing games; rather, playing games is for skill learning."

One of the biggest challenges for students playing invasion games is learning what to do when they do not have possession of the object. A second challenge is knowing what to do in making good decisions when they have possession of the ball. Locating open teammates, getting rid of the object quickly, and then moving into another open space will help students to be more successful games players. These decision-making insights will lead to immediate changes in the quality of game playing with students focusing more on the tactics and strategies of playing the game.

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