

TGfU SIG 40th Anniversary Webinar Series



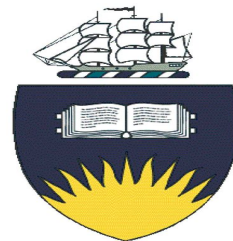
Brendan SueSee
[@DrbrendanSues](#)



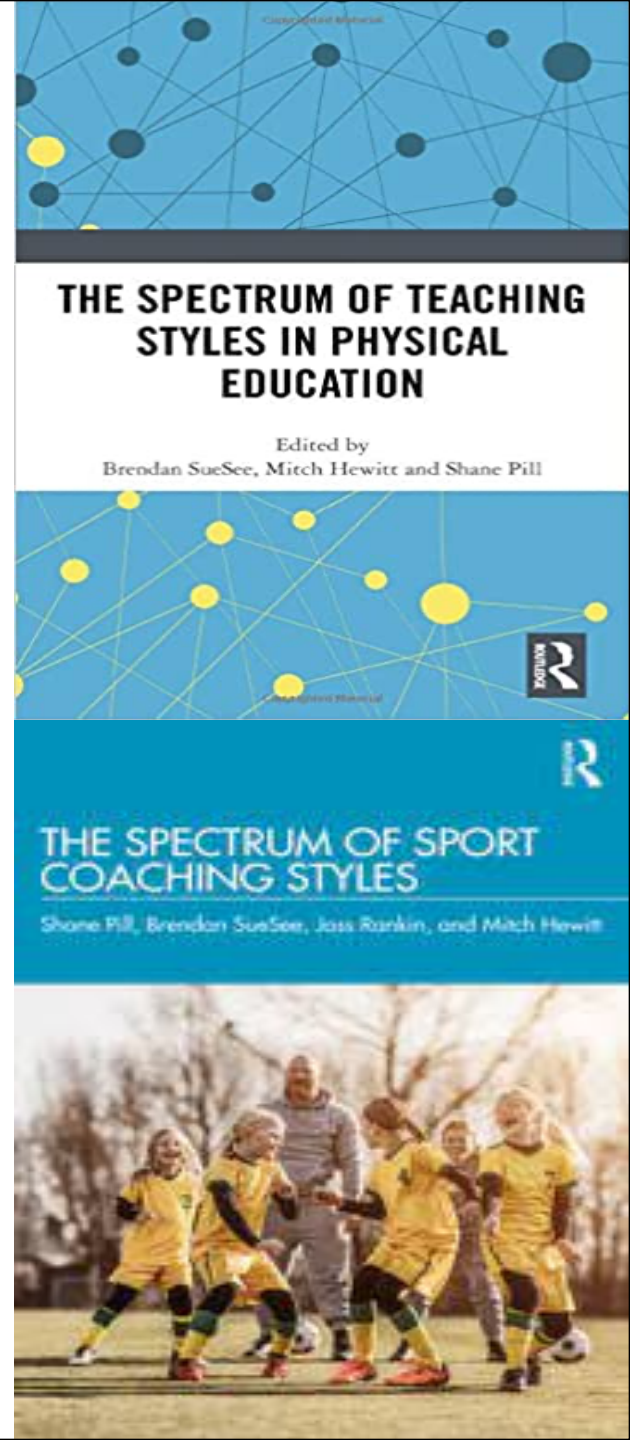
UNIVERSITY
OF SOUTHERN
QUEENSLAND
AUSTRALIA



Shane Pill
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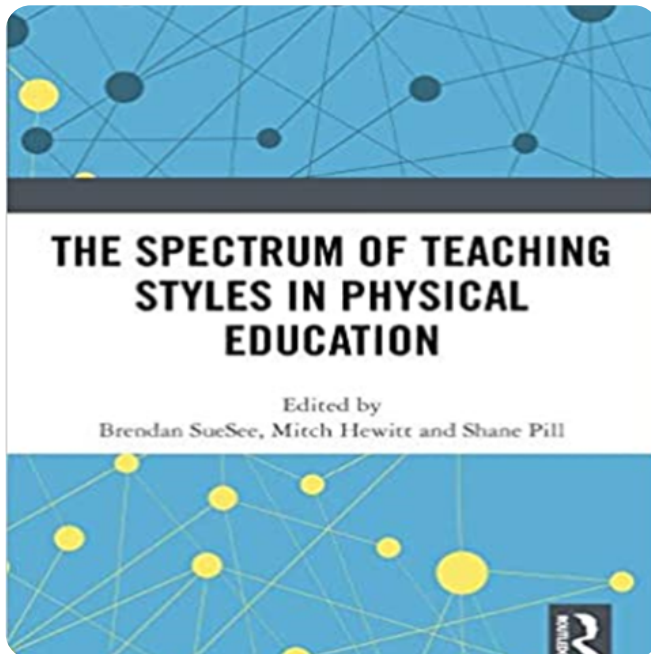


FLINDERS
UNIVERSITY
ADELAIDE
AUSTRALIA





We acknowledge and honour the Giabal and Jarowair peoples of Toowoomba; the Jagera, Yuggera and Ugarapul peoples of Springfield and Ipswich; the Gadigal people of the Eora Nation, Sydney; and the Kambuwal peoples of Stanthorpe as the Traditional Owners of the lands and waterways where the University of Southern Queensland is located.



So what are we suggesting?

The Spectrum of Teaching Styles (Mosston, 1966; Mosston & Ashworth, 2008) to identify the teaching styles used to implement the 6-step TGFU model as a cluster of teaching styles which may include, but is broader than **guided discovery**, problem solving, or **discovery teaching styles**.

TGFU as directed at student discovery and problem solving by explaining that asking students questions may not be guided discovery, or any other type of discovery process.

Depending on the objective of the teaching episode, discovery of new understanding may not be the operant behaviour the teacher is seeking or being used by the students.

TGFU/game based approaches generally are a cluster of teaching styles, and **not a style** (SueSee et al., 2016; SueSee et al., 2020), as lessons and coaching sessions using a GBA are episodic (Pill et al., 2021).

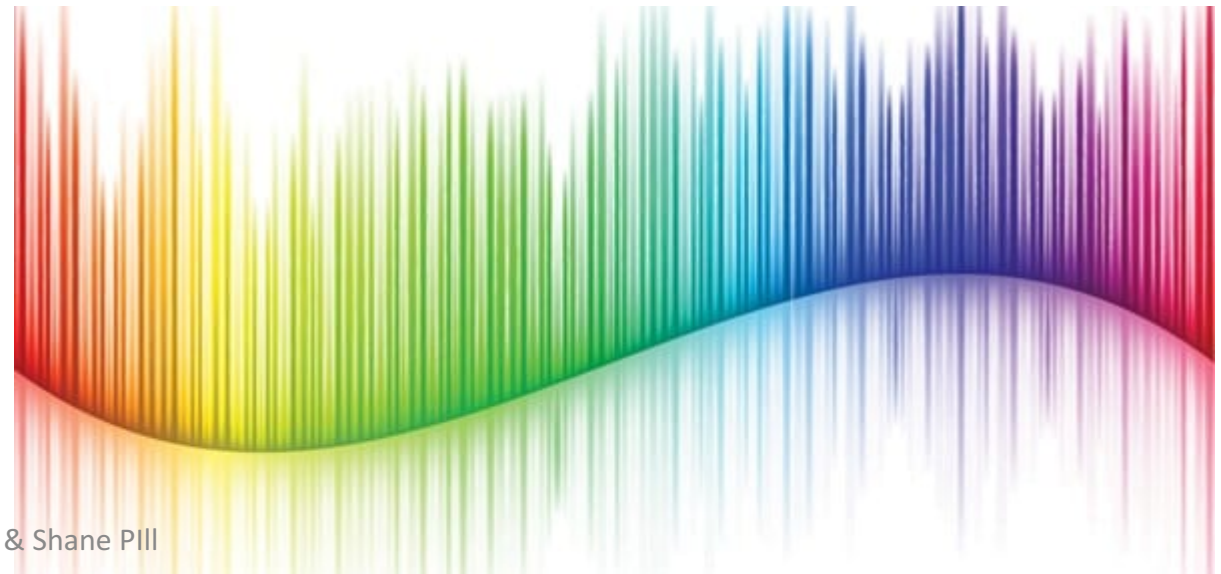
What are we going to do?

- 1. Short 101 of The Spectrum – Q's definitely allowed!
- 2. 6 Step TGfU model and apply to a game.
- 3. Use The Spectrum to identify the teaching styles that could be used to meet the objective.
- 4 Q&A.



THE SPECTRUM

- **WHO HAS HEARD OF IT??????**
- **WHO DISCOVERED IT?**
- **HOW OLD IS IT? – 20, 30, 40, 50 YEARS, MORE...?**
- **WHAT IS IT?**



Short History of the Spectrum

- Began in 1966 when Muska Mosston discovered the **Spectrum of Teaching Styles**.



- The **Spectrum of Teaching Styles** was based on the premise that **teaching is a chain of decision making**, i.e., **who** makes the decisions and **when** and **what** are the **intentions** or purpose of those decisions.

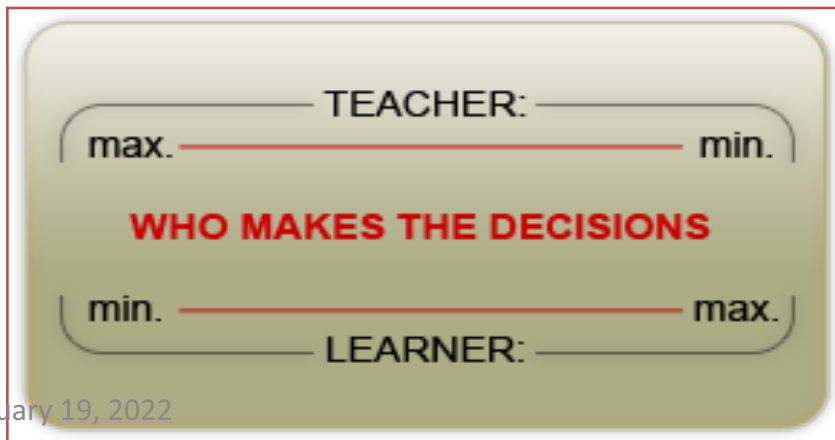
Decisions: – the who, the what and the where?

- **Pre-Impact** – decision which define the **intent** (lesson objectives, skills/tactics/principles to learn)
- **Impact – face to face** interaction between teacher/student, the Students interacting with the learning episodes
- **Post-Impact** - decisions concerning assessment—**feedback about performance** during the impact and evaluation of the overall congruence between the intent and the action of the learning experience.

Spectrum of Teaching Style Clusters

Reproduction Cluster

- Style A – Command
- Style B – Practice
- Style C – Reciprocal
- Style D – Self Check
- Style E – Inclusion



Production Cluster

- Style F – Guided Discovery
- Style G – Convergent Discovery
- Style H – Divergent Discovery
- Style I – Learner Designed Individual Program
- Style J – Learner Initiated Program
- Style K – Self Teaching

Non-Versus Perspective

- One style is not better than another.
- Educational ideas presented in opposition to the status quo.
- **Direct instruction** versus indirect instruction, behaviourist versus humanists.
- Requires teachers to abandon one theory for the new – if you don't you are negative, cynical, old.....?
- “Even a clock that is broken is right twice a day”.
- Spectrum values all style for the objectives they can meet.

The Spectrum

**Style F: Guided Discovery, Inquiry Approach,
Socratic questioning**

Play with Purpose



Shane Pill

Blog: Learning through Sport

<https://learningthroughsport.blogspot.com/>

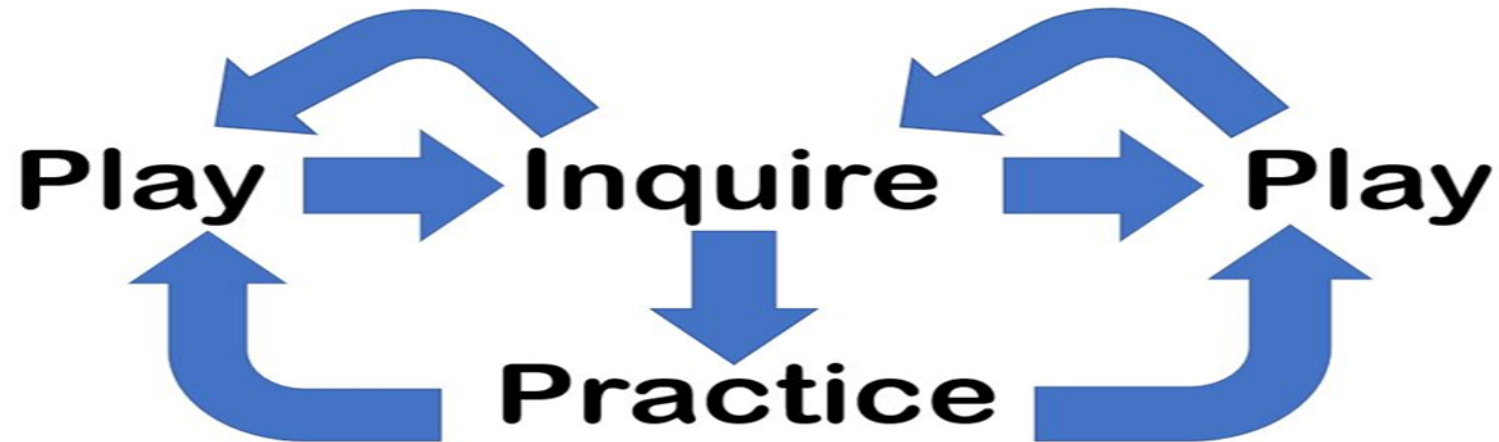
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The Spectrum

**Style G: Convergent Discovery ...PBL,
GSA, TGfU, Inquiry Approach**

Play with Purpose



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The Spectrum

Style H: Divergent Discovery...PBL, GSA,
TGfU, Inquiry Approach

Play with Purpose



Shane Pill

Blog: Learning through Sport

<https://learningthroughsport.blogspot.com/>

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The Spectrum

Style I LDIP: PBL, GSA, TGfU, Inquiry Approach



South Australian
Certificate of Education



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Physical Education

1

2

NET/COURT GAME PERFORMANCE ASSESSMENT INSTRUMENT (GPAI)*

The GPAI (Mitchell, Oslin & Griffin, 2006) is a comprehensive game-based assessment tool suitable for use within a Game Sense teaching approach. Seven components covering on-the-ball shot execution in addition to off-the-ball game performance are typically used in a GPAI – although rarely all at once. Rather, a select number (commonly one to three) of specific game components are commonly chosen in one assessment episode. Three examples of a GPAI have been provided.

Student name: _____ Evaluator name: _____ Class: _____

GAME COMPONENTS

1. Consistency (of shot mechanics - can keep the ball in play)
2. Control (of spin, power and placement)
3. Anticipation (court movement to recover to base position on respond)

DIRECTIONS

1. Observe the selected student for 5-8 minutes, observing only performance related to the above game components. Place ticks in the box for each game interaction.

P = Present/Observable

AI = Absent or Inappropriate

2. Calculate the game component rating for each component (total P + Total AI = X%)
3. Give each student a score from 1-4 on each component

LEVELS OF PERFORMANCE

- 4 = Very Effective Performance
Almost always observable
- 3 = Effective Performance
Usually Observable
- 2 = Moderately Effective Performance
Observable in more than half of the student's attempts
- 1 = Weak Performance
Observable in less than half of the student's attempts

TEAM / STUDENTS	CONSISTENCY		CONTROL		ANTICIPATION	
	P	AI	P	AI	P	AI
Column totals						
Level of performance						

What the student did well _____

What the student can improve upon _____

*Adapted from Mitchell, S., Oslin, J., and Griffin, L. (2013) Teaching sports skills and concepts: A tactical games approach for ages 7 to 18. Champaign, IL: Human Kinetics.

The Spectrum

Style J Learner-Initiated: **Learner making all the decisions**



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Physical Education

1 2



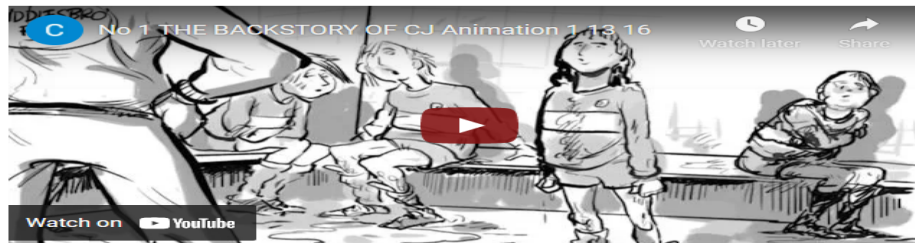
The Spectrum

Style K Self-Teaching: I want to learn about
.....?

The Craig Johnston story in animation, photos and words: The life of a Liverpool legend

By Damon Cronshaw

Updated March 2 2020 - 4:16pm, first published August 26 2016 - 8:00pm



Craig Johnston has told the story hundreds of times.

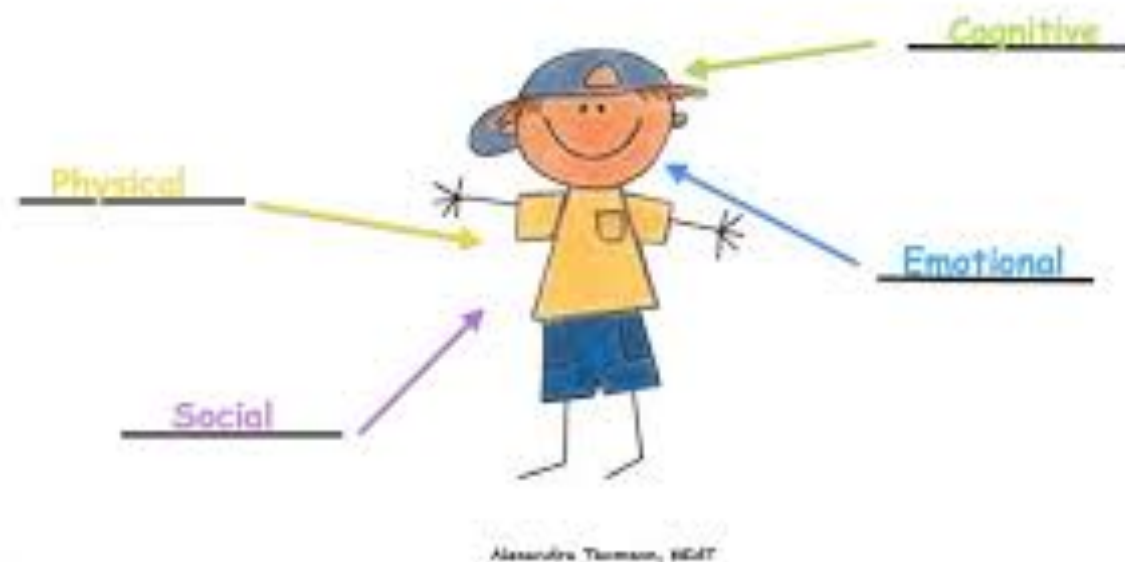
It the story of a 15-year-old boy from Speers Point who travelled to England and beat incredible odds.



Why do I need to do this?

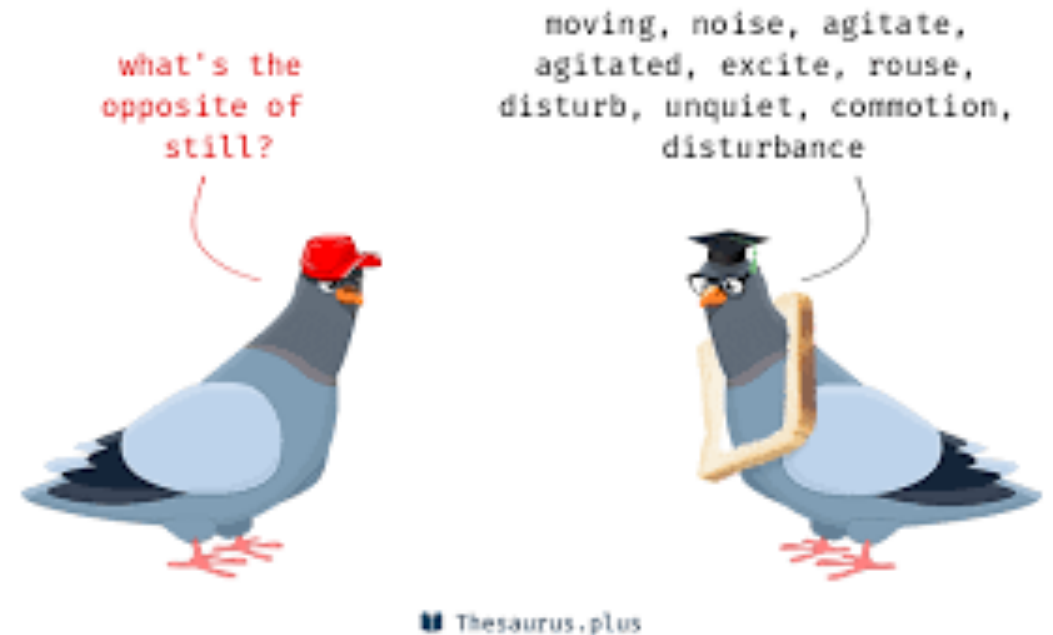
- Not developing the 'whole' person.
- Development Channels – Social, Physical, Ethical, Emotional & Cognitive
- Just developing someone through the reproduction cluster styles – using memory/recall
- Syllabus document

Whole Child Education



Mobility Ability, Non Vs, & Pedagogy of Practice

- When to move and able to move to meet objectives/needs/circumstances.
- Demonstrate-Explain-Practice (Tinning, 2010) - Pedagogy of 'Practice'.
- Reproduction behaviour rather than Production behaviour.
- "Movement" of the S is required for 'learning' – new knowledge/challenges/decisions/learning



6 Step Model

- Step – by – step looking at the possible teaching style that could be used.
- NOT the ONLY styles.
- Use Super 2's (Pill, 2013) – modified cricket game



Discussion: TGfU as a Spectrum of Teaching styles

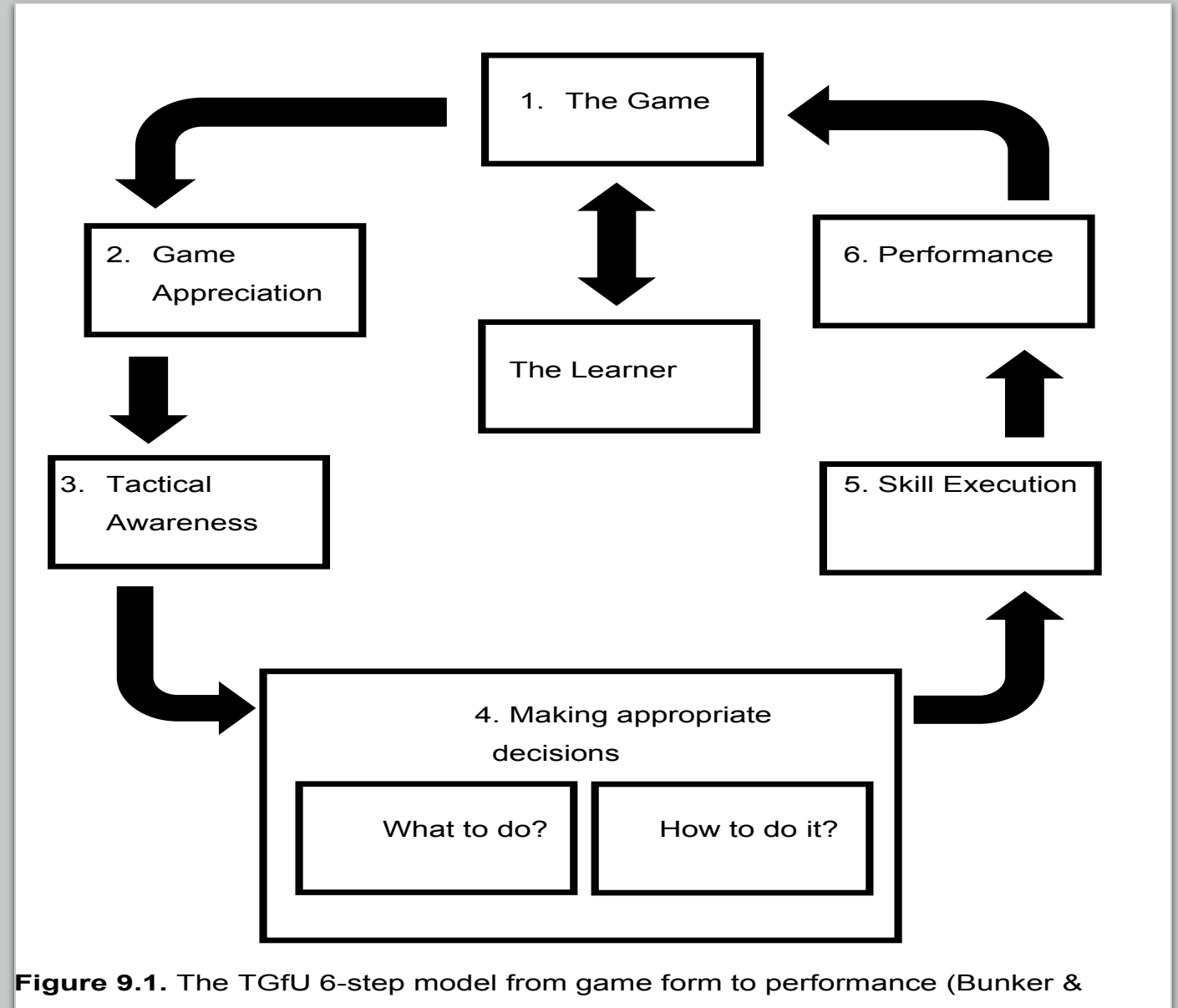

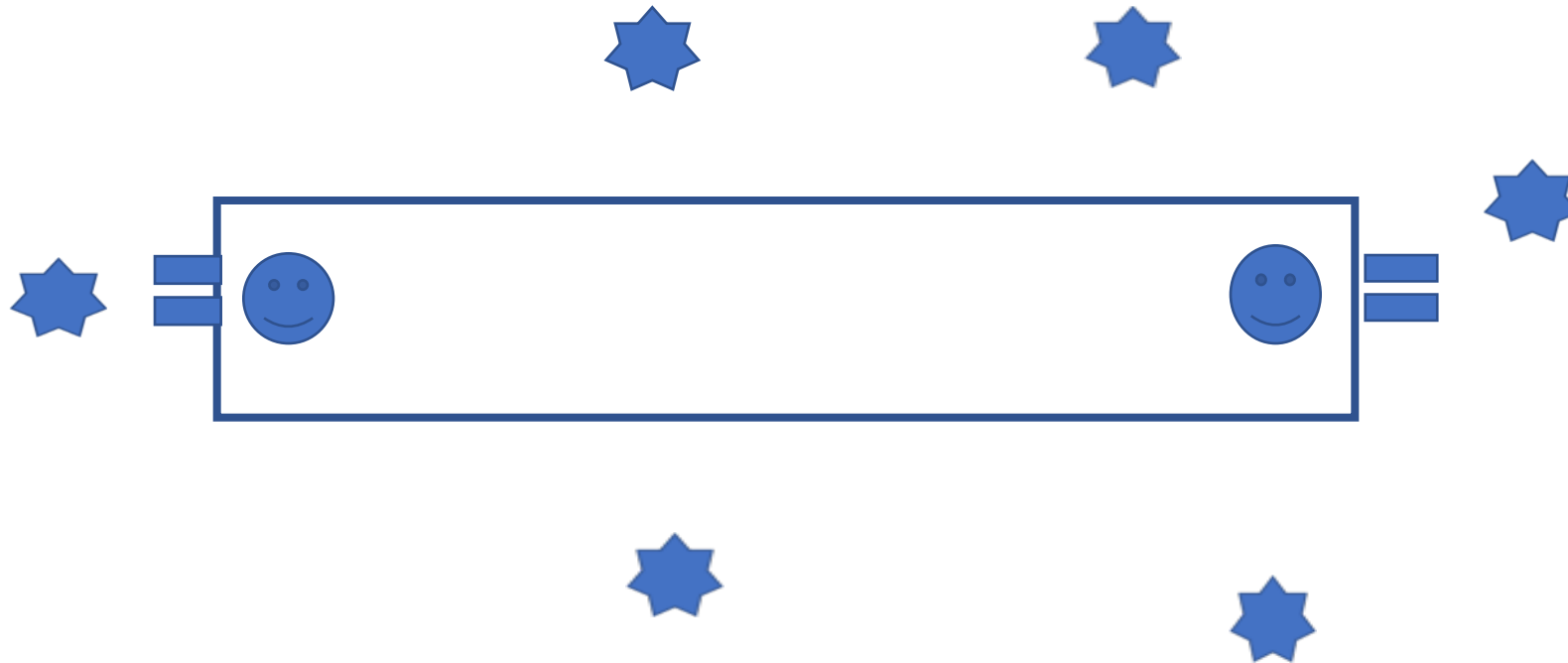


Figure 9.1. The TGfU 6-step model from game form to performance (Bunker & Thorpe, 1982)

- S's have some striking/fielding skills and knowledge. Bowlers bowl 6 balls each. Batters face 24 balls each (48 per pair). Play in pairs (4 pairs).
- Limited game play knowledge/Tactical awareness
- Super 2's – Fielders/Bowlers 

Batters



Suggested questions to ask (Pill, 2013, p. 71) include:

- When do you try to hit the ball along the ground?
- When do try to hit the ball in the air?
- How do you place the ball to score a run?

Steps 1 (The Game) and 2 (Game Appreciation)

Steps 1 and 2 the teacher would explain the game, the rules and how to play (Bunker and Thorpe, 1986) WHY?

Practice Style B - participants have the skills to play the game and they understand the rules and the modifications.

Some S's developed skills..... recalling known skills of striking/bowling/fielding the ball. Teacher may create some modified rules that are new to the student, but it is not assured that new rules require new movement abilities to be developed if the game is a modified version.

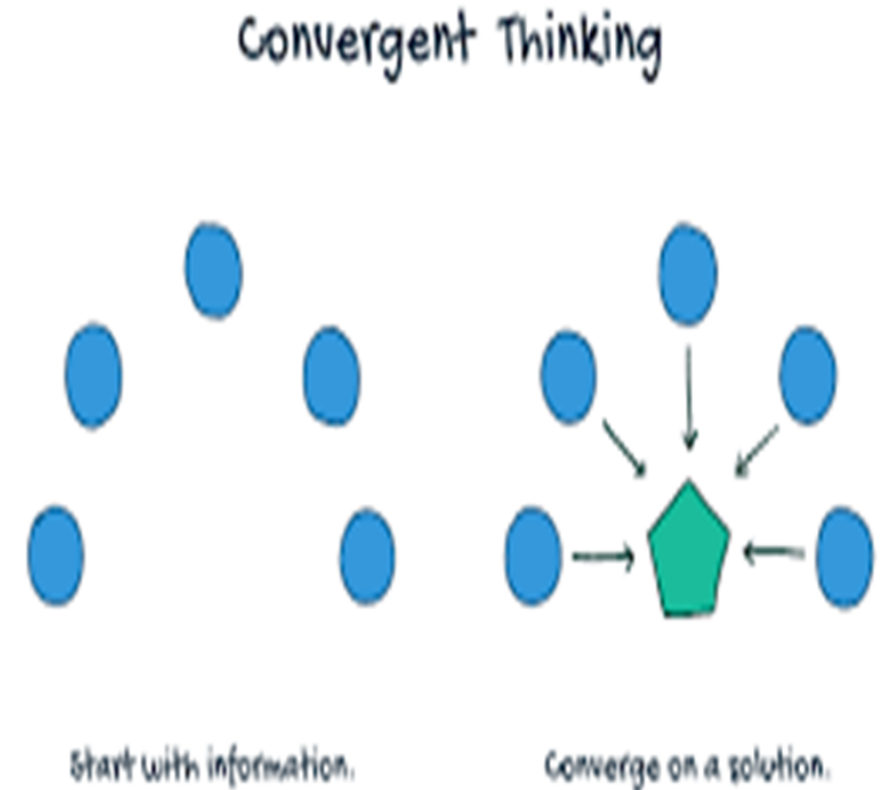
Guided Discovery or.....Practice Style

- For the novice participants, an opportunity for a **Guided Discovery** episode may emerge
.....BUT.....
- If S have prior knowledge, then they will most likely RECALL known skills and strategies – **Practice Style**.



Steps 3 (TA) & 4 (How & When)

- S who can hit the ball but frequently gets caught.
- Taught tactical awareness through modified game during Step 3 if the S's are guided by the T to develop tactical awareness of how to gain an advantage over their opponent.
- “When do you try to hit the ball along the ground”?
- **Convergent Discovery** Episode – that being, there is one correct answer to the problem or question.
- **Convergent Discovery** Style's - to “discover the correct (predetermined) response using the convergent process” (Mosston & Ashworth, 2008, p. 237).

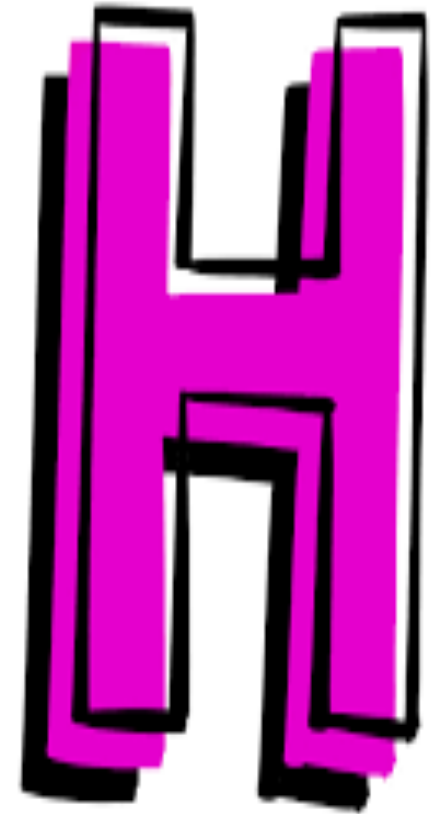


Step 4 – The ‘How to’ and the ‘When to’.

- S’s attempt to discover the principal/tactic – “Ball on the ground, less chance of getting caught”.
- S exploits rule & desires to implement tactic leads to Step 4 – the ‘how to’.
- Bunker and Thorpe (1986) - tactical awareness allows the learners to recognise cues of what to do (skill selection) and the how to do the skill based on the circumstances of the game.



- S has not considered the 'how to' of hitting the ball on the ground.
- Opportunity for a **Guided Discovery** episode to discover how the angle of the bat face determines the trajectory of ball.....OR.....
- **Convergent Discovery** - T asks S to play a game. Player A tosses a half-volley to the batter, who is tasked with hitting the ball over a marker 10m away, then asked to hit the half-volley on the ground to the marker.
- “What do you do differently with the bat to get the ball to go over the marker when compared to on the ground”?



Hyperthetical

Step 5 – Skill Execution

- Skill execution in the context of the game.
- S's developing problem solving skills which help them to understand the purpose for practicing either a technical skill needed to play the game with more tactical sophistication, or a strategic maneuver practiced to gain a tactical advantage (Hopper & Kruisselbrink, 2001).
- Football/Soccer – S cannot bend the ball with accuracy nor knows 'when' to do it.
- Cognitive perspective – S needs to learn the skill and pattern recognition (identify the 'when' quickly, correctly).

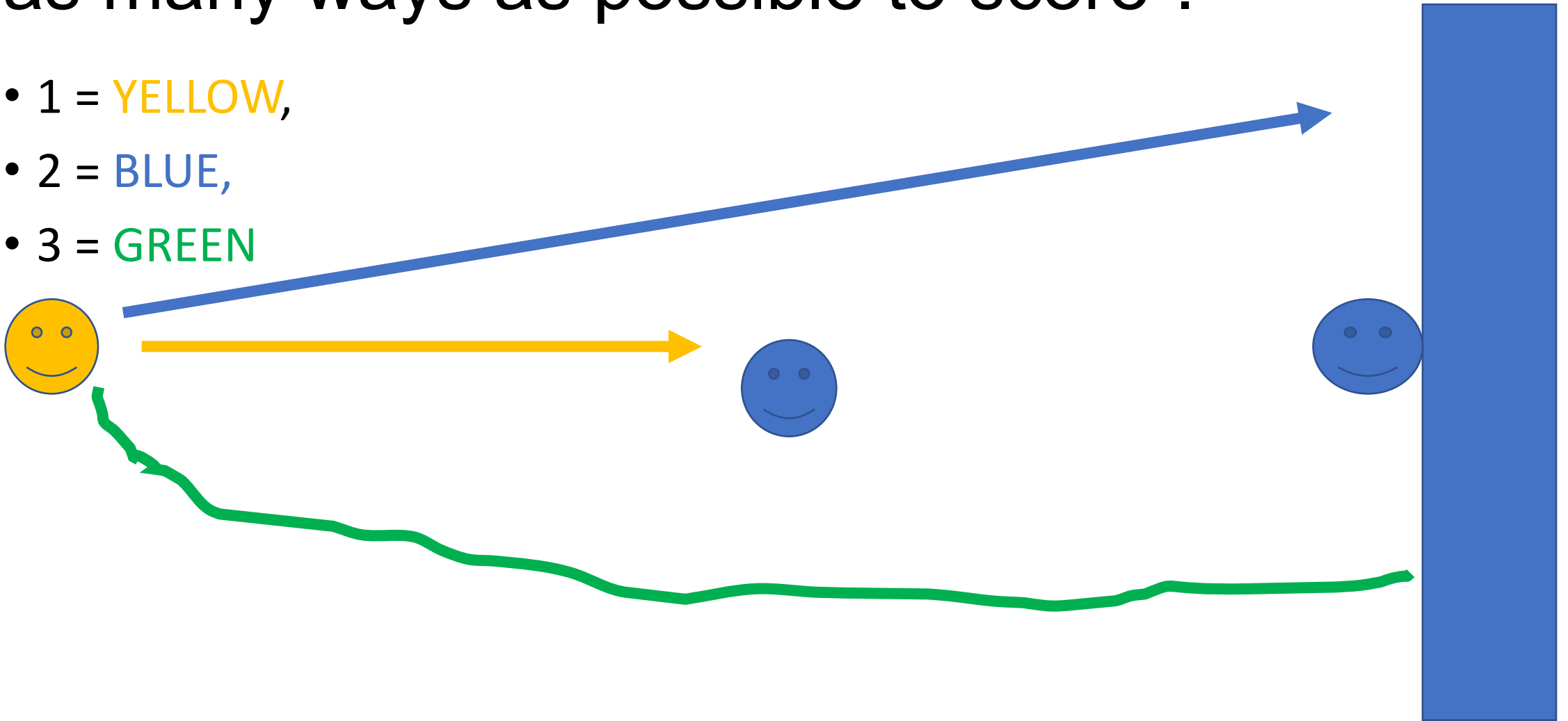


Stage 5 Continued – Pattern Recognition (PR)

- Only be learnt in game play or context of a modified game where the occasion arises for the need of such a skill to be recalled at the appropriate moment.
- Game play creates environment to learn to identify the situation (cues and pattern) and recall appropriate skill (the ‘how’) to match the situation.
- Stage 5 presents an environment that might be seen to necessitate the use of a cluster of styles or at least two episodes to be used – **Divergent Discovery** and **Practice Style**.

Divergent Discovery - “In this situation, create as many ways as possible to score”.

- 1 = **YELLOW**,
- 2 = **BLUE**,
- 3 = **GREEN**



Divergent Convergent Discovery

- Practice three scenarios.
- Decide which one is the most effective - **Convergent Discovery** episode as the teacher is asking the player to decide on one correct response to the question.
- T asks player if there is a skill that they need to work on to execute their chosen scenario with more success? The player may conclude that they need to work on bending of the ball with more accuracy and consistency. This now presents the opportunity for a variety of **Practice Style B**.

Style B –Practice Style

- **Style B** for two reasons:
 - (a) it is to bend the ball with accuracy and consistency, and
 - (b) recognise the cues (open goal on their right with a defender in front) and chooses to execute that strike.
- Style B allows for the rehearsal and retrieval of **both the skill** (bending the ball) and the **recognition of the pattern** which is based on the position of the attacker and defenders.
- pattern recognition provides a priming mechanism for the desired behaviours.



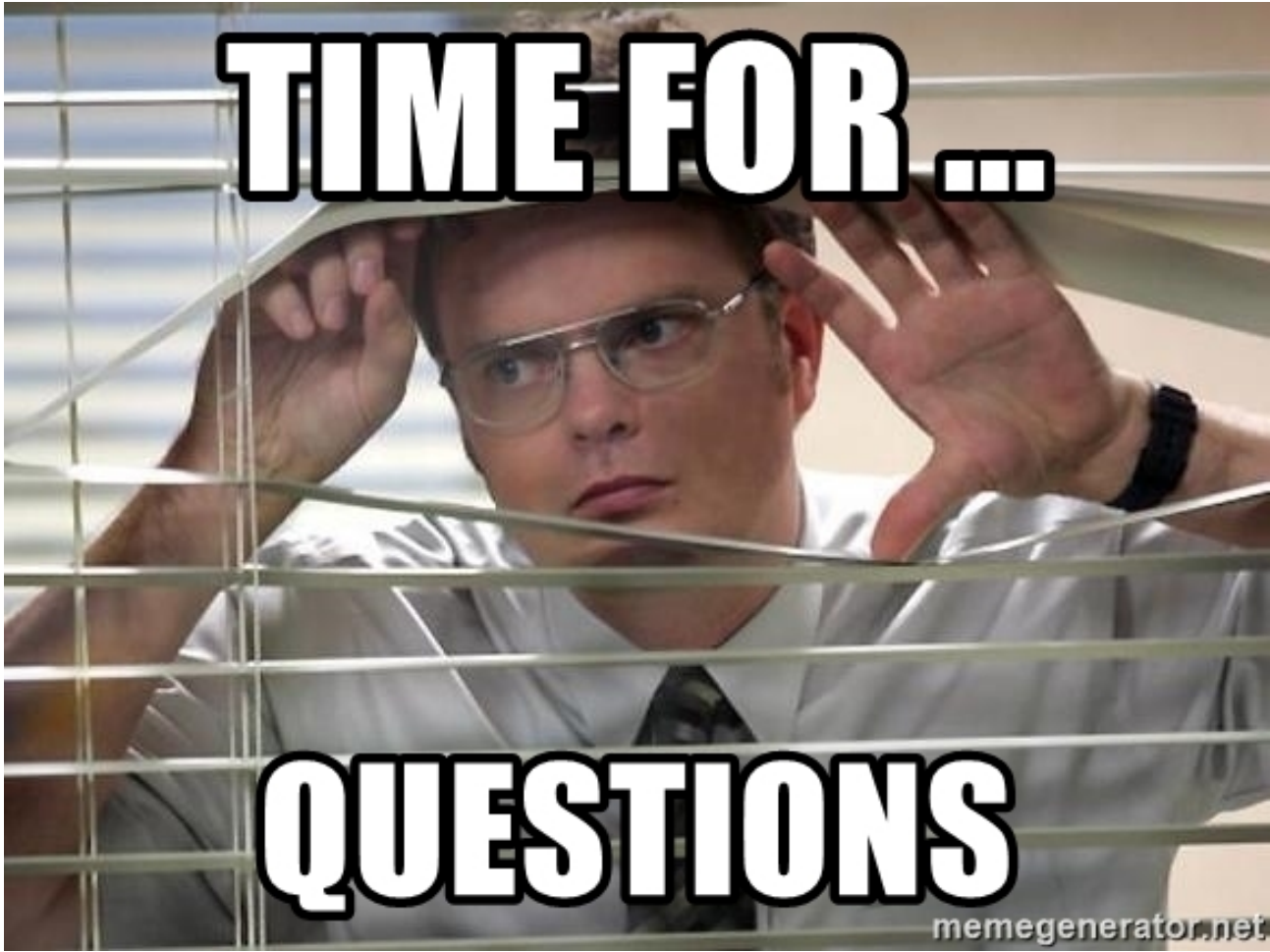
Step 6 Performance

Performance of skill/strategy and where what is learned is “measured against criteria that are independent of the learner” (Hopper & Kruisselbrink, 2001, p.10).

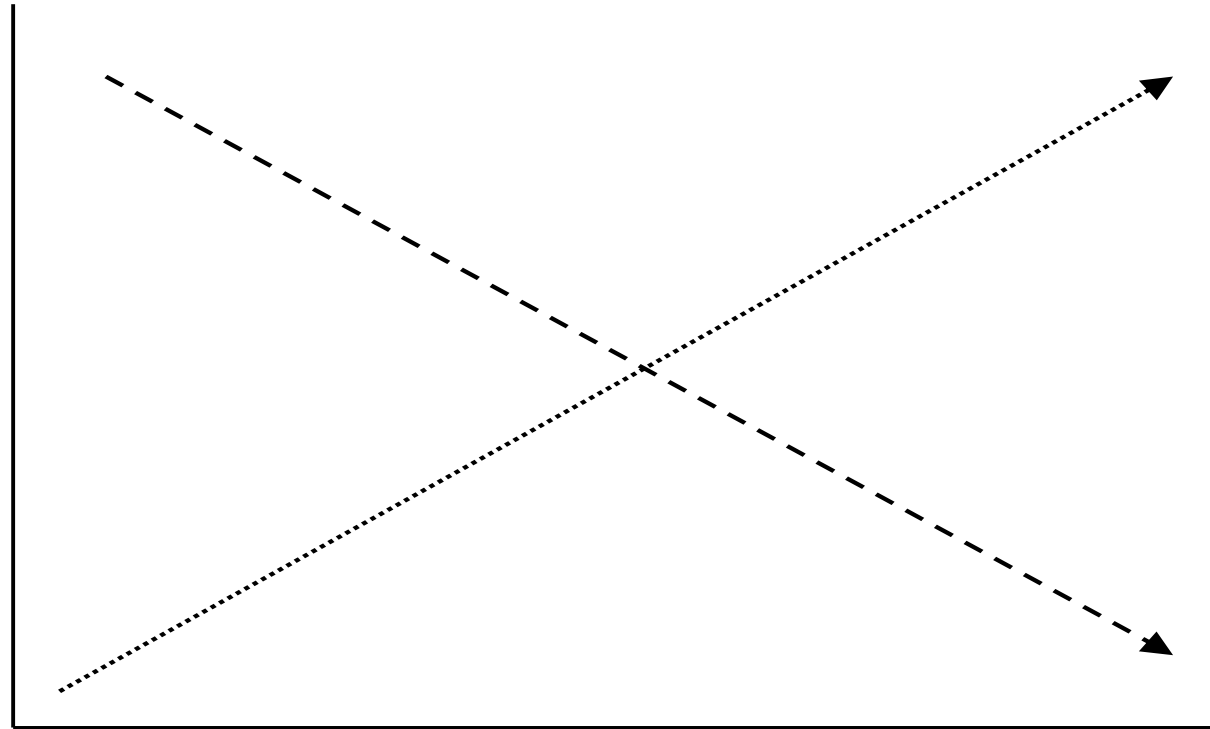
Criteria - Appropriateness of responses & efficiency of technique.

Reference to the word ‘learned’ from a cognitive perspective implies memory or a gained movement ability, therefore it might be concluded that the 6-steps end with a **Style B** teaching episode as the player/s are recalling learned skills and strategies from Steps 4 and 5 in a game like environment, while the teacher provides feedback about the performance.

Or..... **Reciprocal Style C** or **Style D (Self-Check)**



Responsibility for decision making



A B C D E F G H I J K

The Spectrum of Teaching Styles

Student→
Teacher - - - - -→

February 19, 2022

Brendan SueSee & Shane Pill

The Spectrum

Style A: Copy me, mirror me, move when I move



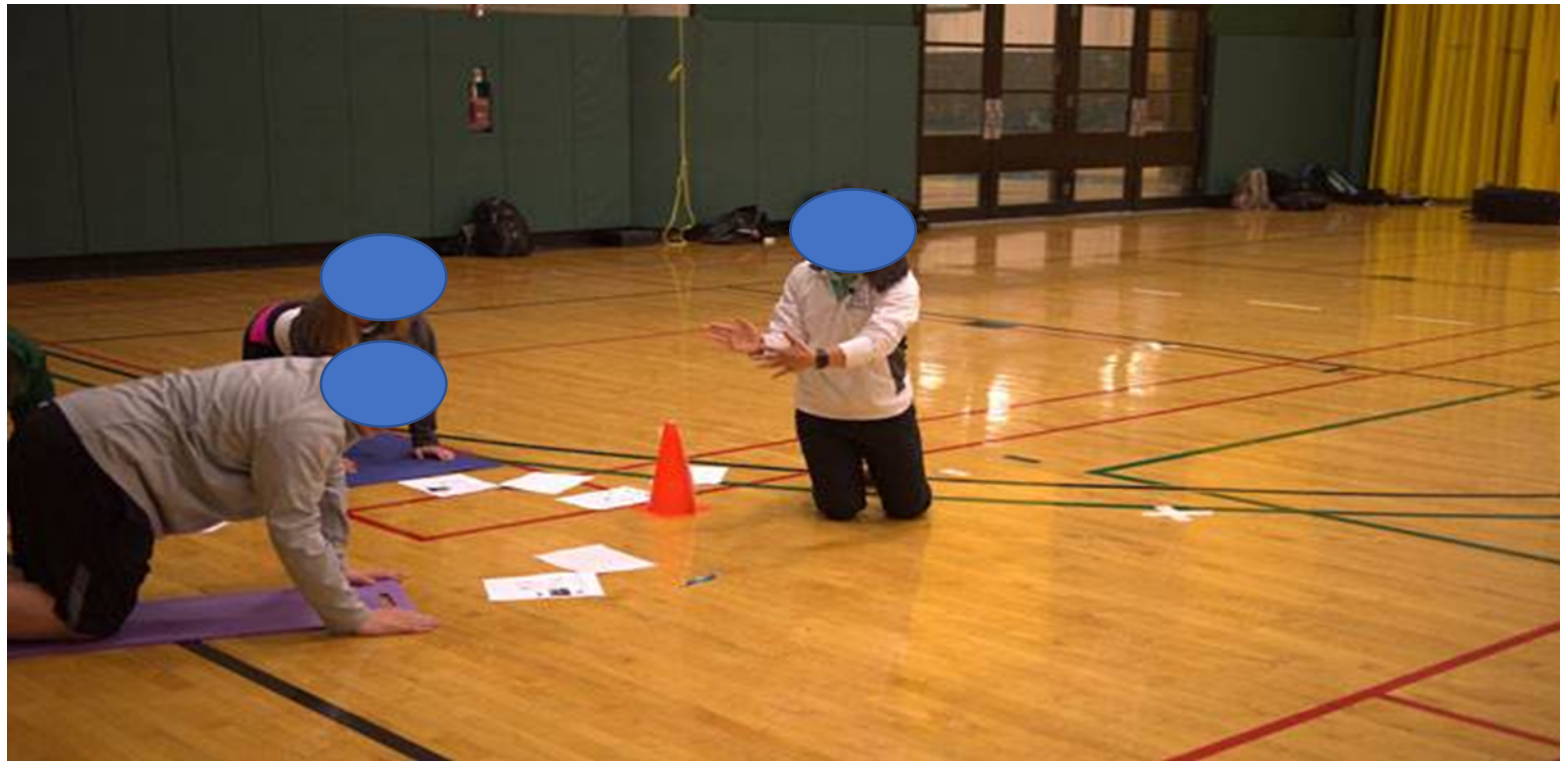
The Spectrum

Style B: skill and drills, GSA, TGfU, Open ended questioning (Guided Discovery), group work, peer teaching, co-operative learning, PSI, Inquiry, PBL



The Spectrum

Style C: Peer teaching, co-operative learning, PSI



The Spectrum

Style D: Dartfish, De Ja Vu, Film yourself

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*Adapted from Mitchell, S., Oslin, J., and Griffin, L. (2013) Teaching sports skills and concepts: A tactical games approach for ages 7 to 18. Champaign, IL: Human Kinetics.

The Spectrum

Style E: Station work, set your own challenge

<p>● Opbouwend achtbal, 3 tegen 1/2/3 De drie aanvallers scoren een punt indien zij de bal na minimaal acht keer overspelen in een van de drie doeltes schieten. Tijdens de eerste poging mag slechts één verdediger het speelveld betreden. Tijdens de tweede poging mogen de twee andere verdedigers spelen. De verdediger die tijdens de eerste poging in het veld stond is nu wisselspeler. Tijdens de derde en laatste aanval mogen alle drie de verdedigers meespelen. Komt de bal buiten de lijnen of in het doel, dan is een poging voorbij.</p> <p>Richtlijnen voor opstart:</p> <ul style="list-style-type: none">• veldafmetingen: 15 x 20 meter;• doelfmeting: 2 meter breed;• zelfstandig wisselen binnen speelveld na zes pogingen. 	<p>● Opbouwend tienbal, 3 tegen 1/2/3 De drie aanvallers scoren een punt indien zij de bal na minimaal tien keer overspelen in een van de twee doeltes kunnen schieten. Tijdens de eerste poging mag slechts één verdediger het speelveld betreden. Tijdens de tweede poging mogen twee andere verdedigers spelen. De verdediger die tijdens de eerste poging in het veld stond is nu wisselspeler. Tijdens de derde en laatste aanval mogen alle drie de verdedigers meespelen. Komt de bal buiten de lijnen, dan is een poging voorbij.</p> <p>Richtlijnen voor opstart:</p> <ul style="list-style-type: none">• veldafmetingen: 15 x 20 meter;• doelfmeting: 2 meter breed;• zelfstandig wisselen binnen speelveld na zes pogingen. 	<p>● Opbouwend tienbal, 4 tegen 2/3/4 De vier aanvallers scoren een punt indien zij de bal na minimaal tien keer overspelen in een van de twee doeltes schieten. Tijdens de eerste poging mogen slechts twee verdedigers het speelveld betreden. Tijdens de tweede poging mogen drie verdedigers meespelen. Tijdens de derde en laatste aanval mogen alle vier de verdedigers meespelen. Komt de bal buiten de lijnen, dan is een poging voorbij.</p> <p>Richtlijnen voor opstart:</p> <ul style="list-style-type: none">• veldafmetingen: 20 x 30 meter;• doelfmeting: 2 meter breed;• zelfstandig wisselen binnen speelveld na zes pogingen. 	<p>● Opbouwend twaalfbal, 4 tegen 2+1+1 De vier aanvallers scoren een punt indien zij de bal na minimaal tien keer overspelen in het doeltje schieten. Het spel start met vier aanvallers tegen twee verdedigers. Na vier keer succesvol overspelen komt een extra verdediger in het speelveld. Na acht keer overspelen spelen de vier aanvallers dus tegen vier verdedigers. Komt de bal buiten de lijnen, dan is een poging voorbij. Dat is ook het geval als de verdedigers achtereenvolgens met drie teamgenoten kunnen overspelen.</p> <p>Richtlijnen voor opstart:</p> <ul style="list-style-type: none">• veldafmetingen: 20 x 30 meter;• doelfmeting: 2 meter breed;• zelfstandig wisselen binnen speelveld na zes pogingen. 
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Figure 5. Game activities of varying complexity levels based on a specific learning outcome and focusing on applying the developed skills. For each game activity the explanation of the intention and rules of the game form, and guidelines relating to sizes of the playing field and equipment, are given (in Dutch while the English translation is still ongoing).

Images

- <https://andrewdeering.com/the-fork-in-the-road-series-past-and-present/>
- <https://careersherpa.net/knowing-and-doing-are-two-different-things/>
- <https://podtail.com/podcast/hyperthetical/>
- <https://mymodernmet.com/smiley-face/>
- <https://oareborough.com/Insights/remind-me-why-are-we-doing-this/>