



What is Tactical Awareness?

Tactical awareness can be defined as a player's ability to read game play, to identify tactical problems or opportunities, choose appropriate tactics to solve the problem or to exploit the opportunity, and then execute their choice using their technical ability.

Tactical Awareness and the interaction of constraints (syllabus)

Your tactical awareness is a personal response emerging from the interaction of constraints during goal directed behaviour in a physical activity (QCAA 2018). For example, consider a cricket bowler who is extremely skilful (individual learner constraint), tasked with getting a batter out (task constraint) on a pitch that offers bowlers very little assistance (environmental constraint).

These constraints would interact to produce a movement strategy or tactical response to this game based problem. In this case, the bowler may respond by varying their bowling speed to attempt to deceive the batter.

How to improve tactical awareness (Amezdroz et al. 2019)

To effectively develop your tactical awareness and optimise your performance, you must improve your tactical limitations. This can be done by following a 3-step process:

- **Step 1:** Identify your tactical limitations.
- **Step 2:** Identify the reasons for your tactical limitations.
- **Step 3:** Devise a personal tactical strategy to improve your tactical limitations.

Step 1: Identify your tactical limitations

This can be done by observing and analysing your performance to identify which movement strategies you demonstrate, and which ones need developing.

Invasion Games

(Australian Football, Basketball, Futsal, Netball, Soccer, Water Polo)



Principles of Play (attacking): Setting up attack; Attacking opposition goal and scoring

Movement Strategies

Maintain possession of the ball by:

- providing forward, backward and lateral passing options to the ball carrier
- **selecting and executing an appropriate pass to a player who is under less pressure**
- passing back or across if you cannot pass forward
- shooting from high percentage areas

Step 2: Identifying the reasons for your tactical limitations (rate limiters)

IMPORTANT: You can't successfully solve the tactical problem/limitation unless you know the **reasons why**. An understanding of rate limiters and how they influence tactical awareness is essential to improve your performance.

Identify possible **rate limiters** OR factors that restrict an Ultimate Disc player from selecting and executing an appropriate pass to a player who was under less pressure?

- equipment (frisbee)
- lack of experience
- defensive pressure
- lack of effort (motivation)
- poor/rushed decision making

Step 3: Devising a personal tactical strategy to improve tactical limitations

The personal tactical strategy could take the form of a modified learning environment **underpinned by the principles of the constraints led approach** (Amezdroz et al. 2019). These environments are carefully manipulated using task constraints designed to:

- **overcome the impact of rate limiters**
- **narrow learner's search towards the selected movement strategy (tactical solution)**

Note: Constraints led learning design meets the assessment objectives and allows you to cover the syllabus subject matter

Overcoming Rate Limiters

Rate Limiter

Defensive Pressure

Task Constraint

Defenders must retreat 2 metres from the player in possession of the frisbee



Narrowing learner's search

A learner's search can be narrowed by emphasising the affordance associated with the intended movement strategy (tactical solution)

Affordance: Information in the environment that presents or affords you with an opportunity to act or exploit.

What information in the environment, when detected, provides the opportunity for a player to execute the movement strategy of executing a pass to a teammate who is under less pressure? **Unmarked teammates**

Task Constraint

Incorporate two 'floating' players who play only as attackers, creating a 7 v 5



TACTICAL AWARENESS INTEGRATED WITH TENNIS (USING STAGES OF INQUIRY)

Unit/Topic	Unit 3, Topic 1: Tactical Awareness																								
Integrated Physical Activity	Tennis																								
<p>Stage 1: Engage & Understand</p> <p>Physical Education Concept (refer to task sheet, syllabus, not a strategy) Identify a Tactical Awareness concept (movement strategy) that can be investigated to improve your physical performance</p> <p>Research Question: What are you trying to find out about your tactical awareness?</p>	<p>Moving your opponent around the court by hitting away from them is an important attacking movement strategy to use to win a point.</p> <p>How effectively do I move my opponent around the tennis court by hitting away from them?</p>																								
<p>Definitions Explain the meaning of the PE concept (i.e. define terms using text book)</p>	<p>Tactical awareness: the ability to read a game, identify opportunities and decide on appropriate tactics to exploit that opportunity (Amezdroz et al. 2019).</p>																								
<p>Secondary data What does research say about the Tactical Awareness concept and its influence on physical performance?</p> <p>Note: Research articles are valuable for examples of experimental conditions; data gathering devices, data presentation, and data analysis;</p>																									
<p>Primary Data What specific primary data needs to be gathered to investigate your research question?</p>	<p>Distance my opponent moves before playing each shot. OR Distance my opponent is from my returned ball</p>																								
<p>Experimental Conditions Give a detailed description of the environment from which the data will be collected</p>	<p>Competitive game of tennis (singles)</p>																								
<p>Data Gathering and Presentation Show how your data will be gathered and presented. (observation and recording sheet; questionnaire; inventory; reflection; interview; survey; digital capture)</p> <ul style="list-style-type: none"> • must use a validated questionnaire where appropriate and reference it • quality primary data is reliable, valid, unbiased 	<p>Partner observes tennis match and records the distance my opponent moves to return the ball using a Game Performance Assessment Instrument</p> <p>Table/Recording Sheet</p> <table border="1"> <thead> <tr> <th>Distance opponent moves (metres)</th> <th>0-1</th> <th>1-2</th> <th>2-3</th> <th>3-4</th> <th>>4</th> </tr> </thead> <tbody> <tr> <td>Tally (I = shot returned, x = shot not returned)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Also incorporate a performance measure, i.e. points won and lost</p>	Distance opponent moves (metres)	0-1	1-2	2-3	3-4	>4	Tally (I = shot returned, x = shot not returned)																	
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<p>Stage 2: Apply and Analyse</p> <p>Data Analysis How will primary data be analysed to determine the extent of the influence of the Tactical Awareness concept on performance?</p> <ul style="list-style-type: none"> • you must transform raw data into useful information, e.g. classify, group, average data. • you must present this data in some analytical format (table, graph) 	<p>Data is tallied, and expressed as a percentage</p> <p>Table/Recording Sheet</p> <table border="1"> <thead> <tr> <th>Distance opponent moves (metres)</th> <th>0-1</th> <th>1-2</th> <th>2-3</th> <th>3-4</th> <th>>4</th> </tr> </thead> <tbody> <tr> <td>Tally (I = shot returned, x = shot not returned)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Percentage</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> 	Distance opponent moves (metres)	0-1	1-2	2-3	3-4	>4	Tally (I = shot returned, x = shot not returned)						Total						Percentage					
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<p>Data Analysis Identify Problem (limitation)</p> <ul style="list-style-type: none"> • What problem does the data demonstrate? • What is the possible cause of the problem (rate limiter)? 	<p>50% of shots are hit within 1 metre/step of my opponent.</p> <p>Rate Limiter (possible): Personality: reserved; defensive mind set</p>												
<p>Devise a Strategy Devise a personal tactical strategy that considers the concept in improving your performance</p> <p>Design a constraints-led learning environment to:</p> <ul style="list-style-type: none"> • overcome rate limiter (reserved, defensive mindset) • narrow search (emphasise affordance) <p>What is the affordance (information in the environment that affords the opportunity to hit away from opponent)? Space</p> <p>How can the affordance be emphasised?</p>	<p>Modified Game of singles</p> <p>Task Constraint (overcome rate limiter): If you win the point in your first 3 shots = double points</p> <p>Task Constraint (emphasise affordance of space): one player (me) has the doubles court to hit into, opponent has the singles court</p>												
<p>Justify the development of the strategy (i.e. how it addresses the concept's influence and the cause of the influence and improves performance)</p> <ul style="list-style-type: none"> • use a reference that validates how your strategy is supposed to work <p>The constraints-led approach is an ideal physical education teaching approach to use to develop my tactical awareness. This is because the approach challenges me to solve common tactical problems through active exploration of representative practice environments. These environments are carefully manipulated using task constraints that present me with tactical problems to solve and narrows my search towards selected solutions (Amezdroz et al. 2019).</p> <p>Task Constraint 1 (Overcoming Rate Limiter): Once I identify the rate limiter responsible for me hitting the ball straight to my opponent, I can manipulate the learning environment to overcome its impact and allow the opportunity for the learning of the tactical concept (Amezdroz et al. 2019). The task constraint of doubling the points scored if I win the rally in my first 3 shots is designed to overcome the rate limiter of my defensive mindset, by encouraging and rewarding attacking play.</p> <p>Task Constraint 2 (Emphasise Affordance): For me to consider hitting the ball away from my opponent, I must be able to detect the associated affordance of space on the court. To help me do this the affordance is emphasised within the modified game by widening the court dimensions that I can hit into. This should produce an environment in which I can easily detect space.</p> <p>Note: this section allows for the application of important syllabus subject matter (dynamic systems theory; individual learner, task, environmental constraints; interaction of constraints; principles of decision making; affordance; perception action coupling; representative practice, principles of play)</p>													
<p>Implement strategy Gather primary data about the effectiveness of the strategy (same data gathering method)</p>	<p>Partner observes tennis match and records the distance my opponent moves to return the ball using a Game Performance Assessment Instrument</p> <p>Table/Recording Sheet</p> <table border="1"> <tr> <td>Distance opponent moves (metres)</td> <td>0-1</td> <td>1-2</td> <td>2-3</td> <td>3-4</td> <td>>4</td> </tr> <tr> <td>Tally (l = shot returned, x = shot not returned)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Should also incorporate a performance measure, i.e. points won and lost</p>	Distance opponent moves (metres)	0-1	1-2	2-3	3-4	>4	Tally (l = shot returned, x = shot not returned)					
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Analyse Data How will data be analysed to determine the effectiveness of the strategy in improving your performance?	Data is tallied, and expressed as a percentage					
	Table/Recording Sheet					
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Stage 3: Evaluate and justify

Evaluate strategy

Evaluate the effectiveness of your strategy in optimising personal performance in the selected physical activity.

Justify maintenance or modification of the strategy using primary and secondary data.

Note: this section allows for the application of important syllabus subject matter (dynamic systems theory; individual learner, task, environmental constraints; interaction of constraints; principles of decision making; affordance; perception action coupling; representative practice, principles of play)

Note: To effectively evaluate their strategy within the project folio task, students would need to gather post strategy data in the same experimental conditions as the pre-strategy data was collected (i.e. singles tennis match without modifications)

Amezdroz, G., Kelso, A., Moy, B., Stewart, T., and Sweeper, R. (2019). Macmillan Physical Education QCE Units 3 + 4 Macmillan: South Yarra.