Skill Acquisition & Sports Psychology GCSE to A Level Transition Tasks

Part 1: Advanced Skill Classification (Skill Acquisition)

At A-level, you must classify skills using **continuums** rather than simple definitions.

Your Task:

Copy the table below and classify a **tennis serve** and a **rugby tackle** across the four key continuums. For each classification, write a one-sentence justification explaining *why*.

Continuum	Tennis Serve Classification & Justification	Rugby Tackle Classification & Justification
Environmental ***(Open vs. Closed)***	**Closed**: The environment is predictable and execution is entirely under the player's control.	**Open**: The environment changes constantly as the player must adapt to the opponent's movement.
Difficulty ***(Basic vs. Complex)***		
Pacing ***(Self-paced vs. Externally-paced)***		
Muscular Involvement ***(Gross vs. Fine)***		

Part 2: Applied Sports Psychology Case Study

At GCSE, you learned basic feedback. At A-level, you must understand how coaches manipulate the environment to change behaviour using **Skinner's Operant Conditioning Theory**.

The Scenario:

A basketball coach notices a player repeatedly uses poor form when shooting lay-ups, resulting in missed shots. The coach wants to use ***Operant Conditioning*** *to modify the player's behavior so they use the correct technique.*

Your Task:

Answer the following three questions using accurate A-level sports psychology terminology. Aim for 2–3 short sentences per answer.

1. **Operant Conditioning (S-R Bond):** Explain how the coach can use **Positive Reinforcement** when the player finally executes the lay-up with correct form. What does this do to the Stimulus-Response (S-R) bond?
2. **Trial and Error:** How does the player use trial and error learning during this practice session to figure out the correct mechanism?
3. **Punishment:** Give an example of a **Punishment** the coach could use if the player lazily reverts to bad form. How does punishment affect the S-R bond?

Part 3: Extension Challenge (Exam Style)

- **Question:** Define the term **"Negative Reinforcement"** in a sporting context.
- *Tip:* Be careful! Many students confuse negative reinforcement with punishment. Research the exact definition according to AQA A-level PE parameters.

Task 4: Atkinson Multi-Store Memory Model (Skill Acquisition)

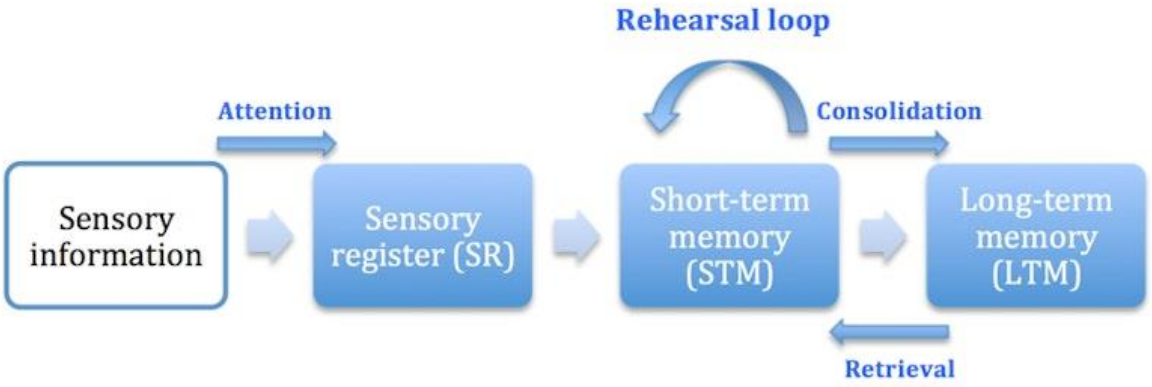
At GCSE, you looked at basic information processing (Input → Decision → Output → Feedback). At A-level, you zoom into the "Decision Making" phase by analysing how the brain stores and filters information using the **Multi-Store Memory Model**.

Core Concept to Learn:

1. **Sensory Memory:** Holds huge amounts of environmental data for up to 1 second. It filters out irrelevant data via **Selective Attention**.
2. **Short-Term Memory (STM):** The "working memory." Holds 5–9 items for up to 30 seconds.
3. **Long-Term Memory (LTM):** Unlimited capacity and duration. Holds permanent motor programmes.

The Scenario:

A cricket batsman is facing a fast bowler. The bowler releases the ball. The batsman must filter out the shouting crowd, select the cue of the ball's seam, recall how they played this bounce in the past, and execute a cover drive.



Your Task:

Answer the following questions based on the cricket scenario:

1. **Selective Attention:** Why is selective attention crucial for the batsman's **Sensory Memory**? Give an example of a cue they *must* focus on and a distraction they *must* filter out. (2 sentences)
2. **Chunking & Encoding:** How does a professional batsman use their **Long-Term Memory** to react faster than a beginner? Mention "motor programmes." (2 sentences)
3. **Memory Strategies:** Name and explain **one method** a coach can use to make sure a new skill successfully transfers from the Short-Term Memory into the Long-Term Memory. (2 sentences)

Task 5: Drive Theory vs. Inverted-U Theory (Sports Psychology)

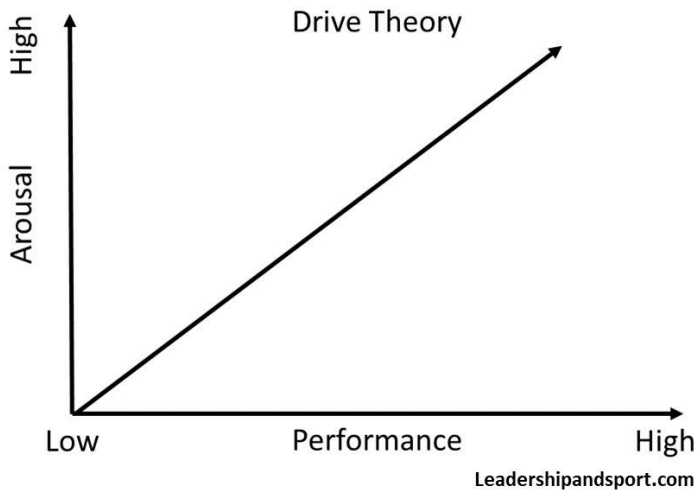
At GCSE, you learned that mental readiness matters. At A-level, you must compare conflicting theories of **Arousal** (the physiological and psychological state of alertness/excitement) and how it impacts performance.

Core Concept to Learn:

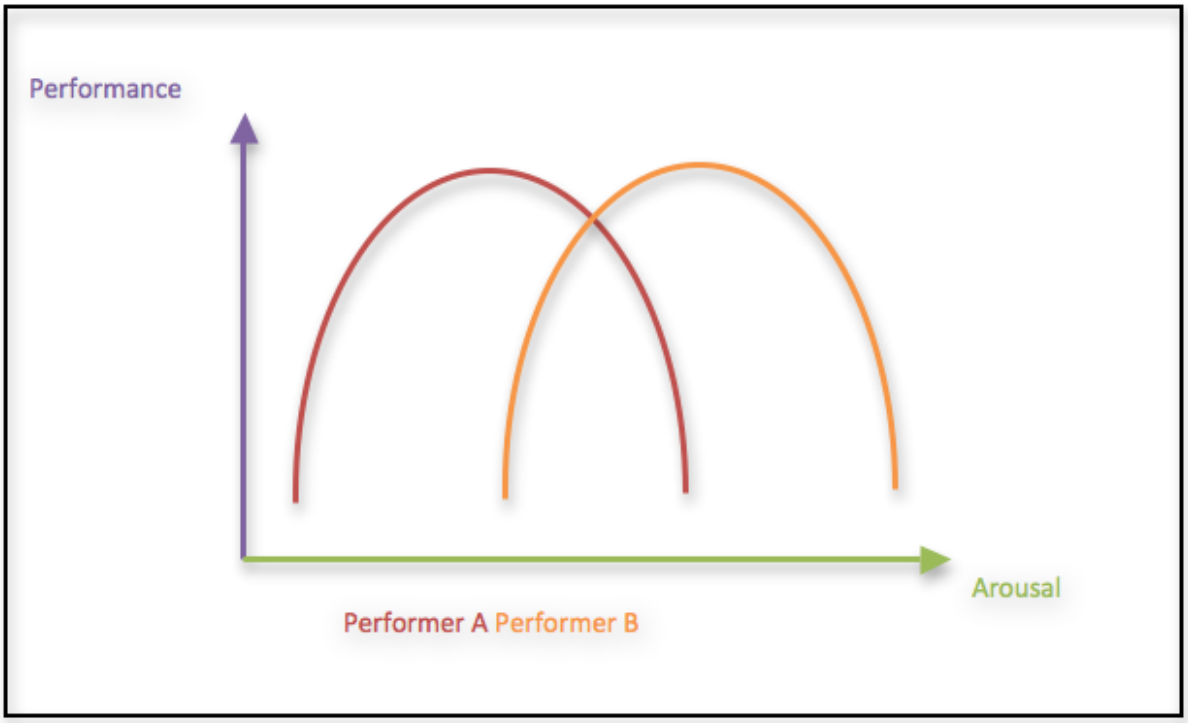
- **Drive Theory:** A linear relationship. As arousal increases, performance increases proportionally. (Higher arousal = better performance).
- **Inverted-U Theory:** A curvilinear relationship. Performance increases with arousal up to an **optimal point**. If arousal increases past this point, performance collapses.

Your Task:

Analyse the graph below and complete the application questions.



1. **The Flaw in Drive Theory:** Explain why Drive Theory does *not* accurately explain what happens to a novice tennis player who gets overly stressed or anxious before a match-winning serve. (2 sentences)



2. **Task Type and Optimal Arousal:** The optimal point on the Inverted-U shifts depending on the skill type.

- Where should the optimal arousal point be for a **fine/complex skill** (e.g., a pistol shooter or a snooker player)? Low, medium, or high? Justify your answer. (2 sentences)
- Where should the optimal arousal point be for a **gross/simple skill** (e.g., a rugby tackle or a weightlift)? Justify your answer. (2 sentences)

Wider Reading: Start reading around the subject to build context.

Recommended texts include:

AQA A-level PE Specification and AQA A-level PE (Year 1 and Year 2) Textbook. [1]

Sport Psychology: The Chimp Paradox by Prof Steve Peters. Excellent for understanding mental management, confidence, and how athletes cope with stress and pressure.

Skill Acquisition & Success: Bounce by Matthew Syed. Investigates the science of "talent" and the importance of deliberate practice in sport.

Watching elite sports through a scientific lens is a great way to prepare for AQA's synoptic papers:

- **The Game Changers** (Netflix): Explores the science of plant-based diets on athletic performance, recovery, and physiology.
- **Icarus** (Netflix): A deep dive into the science, ethics, and global impact of performance-enhancing drugs (PEDs) and sports law.
- **Free Solo** (Disney+): Explores the psychology of fear, extreme stress, and the neuromuscular control required in high-consequence environments.

Helpful YouTube Links:

GCSE To A-Level | Tips On How To Prepare 💭