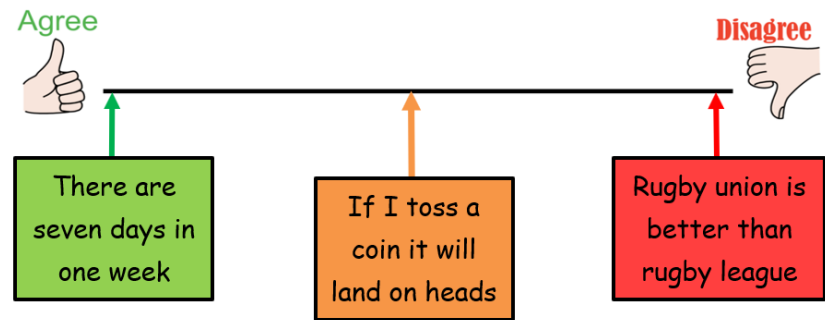


Paper 2: Classification of skills

Classifying skills on a continuum

- You need to classify skills on a continuum!
- A continuum is a line that goes between two extremes!
- We can put information on the continuum!



We need to know four continua (continua = more than 1 continuum)

Open ————— Closed

Basic ————— Complex

Self-Paced ————— Externally Paced

Gross ————— Fine

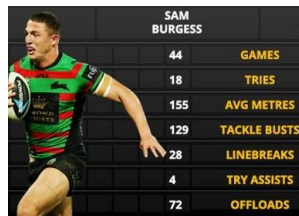
|                       | Open Skills                                                                                                                                                                                                                                                      | Closed Skills                                                                                                                                                                                                                                                       |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description           | Open skills <b>ARE</b> affected by their surrounding environment. Extreme open skills need to be constantly adapted by the performer as situations change around them. Conditions are unstable and <b>UNLIKELY</b> to be the same each time a skill is performed | Closed skills are <b>NOT</b> affected by their surrounding environment. Extreme closed skills don't need to be constantly adapted by the performer as situations around them are stable. Conditions are <b>LIKELY</b> to be the same each time a skill is performed |
| Example of the skills | <div></div> <p>Football Pass      Hockey Dribble</p>                                       | <div></div> <p>Gymnastic Vault      Penalty Kick</p>                                         |

|                       | Basic Skills                                                                                                                                                                                                                | Complex Skills                                                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description           | Are simple to perform<br>Requires little thought<br>Don't need much information to be processed<br>Requires little decision making                                                                                          | Are difficult to perform<br>Requires thought and concentration<br>Require a lot of information to be processed<br>Requires a lot of decision making                                                                        |
| Example of the skills | <div></div> <p>Running      Swimming</p>              | <div></div> <p>Rock Climbing      Overhead Kick</p>  |
|                       | Self-Paced Skills                                                                                                                                                                                                           | Externally Paced Skills                                                                                                                                                                                                    |
| Description           | The skill is started when the performer decides to<br>The performer controls the speed, rate and pace of the skill                                                                                                          | The skill is started by an external factor<br>External factors such as an opponent control the speed, rate or pace of the skill                                                                                            |
| Example of the skills | <div></div> <p>Tennis Serve      Weight Lifting</p> | <div></div> <p>Penalty Save      Tennis Return</p> |
|                       | Gross Skills                                                                                                                                                                                                                | Fine Skills                                                                                                                                                                                                                |
| Description           | Skills are big, strong, powerful movements<br>They involve large muscle groups to perform                                                                                                                                   | Skills are small and precise movements, showing high levels of accuracy and coordination<br>They involve small muscle groups                                                                                               |
| Example of the skills | <div></div> <p>Rugby Tackle      Shot-Put</p>     | <div></div> <p>Archery      Golf Putting</p>     |

Paper 2: Goals setting and SMART targets

| Performance Goals                                                                                                                                                                                                                                                                                                                                                                                                                                   | Outcome Goals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Focuses on your own personal performance. You can compare yourself against what you have already done:</p> <ul style="list-style-type: none"><li>Considered better than outcome goals as there is no comparison with other performers</li><li>Because the focus on improving personal performance, the overall standard of performance will increase</li><li>They are more motivating than outcome goals as they do not rely on others</li></ul> | <p>Focuses on the end result such as winning, they are literally the desired outcome of a game or match:</p> <ul style="list-style-type: none"><li>They can be used to motivate advanced players to achieve the desired result</li><li>Some performers can be so focused on the end result their individual performance decreases</li><li>As an individual you do not always have control over the end result as it often relies on others performance (you may play well but still lose)</li></ul> |

Sporting Examples



A performance goal can be to improve the AVG (average) metres made during the next match



An outcome goal can be to win the next game



A player may have an outcome goal to win. They may play really well but still lose the game



A beginner may have a performance goal of having the correct grip during their next match



A player may have an outcome goal to win, this may put pressure on them and lose focus decreasing their performance



An elite performer may use an outcome goal to motivate them to success

Goal Setting

Why?

To keep the performer motivated

To help the planning of a successful training sessions

To keep the performer focused

Monitor progress

To make the performer have the feel-good factor

| SMART TARGETS |            | Explanation                                                                                                                                                              | Application                                                                                                                                                                       |
|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S             | Specific   | <p>The goal must be clear, it cannot be vague e.g. 'I want to get better.'</p> <p>It has to be clear and focus on what you want to improve</p>                           | <p>To improve the percentage of successful passes in football</p> <p>To improve my cardiovascular fitness so I can last a full game without getting tired</p>                     |
| M             | Measurable | <p>In order for your goal to be successful it must have something that can be measured</p> <p>This can be time, distance or numbers</p>                                  | <p>I want to get an average of a 90% successful pass rate in football</p> <p>I want to improve my 12-minute cooper run score by 150m</p>                                          |
| A             | Achievable | <p>The goal you have set must be achievable by you. Avoid setting targets that are too difficult as this will be demotivating</p>                                        | <p>I currently achieve an 85% successful pass rate I need to improve by 5% this is achievable</p> <p>I currently run 2650m in the cooper run. I hope to achieve 2800m</p>         |
| R             | Realistic  | <p>The goal set must be realistic and one that is possible given all the factors involved such as your fitness level, the time required and the facilities available</p> | <p>An extra 5% success rate is realistic as I am practicing extra passing drills</p> <p>I will be training an extra session on my cardiovascular fitness to run an extra 150m</p> |
| T             | Time Bound | <p>Goals must have a time frame to complete. You need a cut-off point to when you want to achieve it so you can see the effect of the training</p>                       | <p>I am going to achieve a 90% successful pass rate by the end of the season</p> <p>I will improve my 12-minute cooper run by 150m in six weeks</p>                               |

Paper 2: Basic information processing

|                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Information processing</b></p> <p>Information processing is where you make decisions based on gathering information (stimuli) from your senses, such as what you see and hear. You prioritise the important stimuli to make a suitable decision</p> <div><div>Input</div><div>Decision Making</div><div>Output</div><div>Feedback</div></div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Input                                                                                                                                                                                                                                                                                                                                               | <p>The information received from your senses (display) via selective attention:</p> <p><b>Selective attention:</b> Is when you focus on the important information (stimuli). When performing a skill there can be a lot of information around you. You have little time to select the relevant information such as the speed and direction of the ball and ignore the irrelevant such as the noise from the crowd</p>                                                                                                                                                       |
| Decision making                                                                                                                                                                                                                                                                                                                                     | <p>The selection of an appropriate response using the information (input) and what is stored in the long-term memory</p> <p><b>Long-term memory:</b> This is information that has been rehearsed and stored for future reference. The more you practice, the more information about a skill or technique is stored in the memory and can be recalled in the future</p> <p><b>Short-term memory:</b> This only lasts for a few seconds. It is a working memory you use while completing a skill. E.g. attention to your opponent's position when passing a ball in rugby</p> |
| Output                                                                                                                                                                                                                                                                                                                                              | <p>The information you send to your muscles to carry out the response</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Feedback                                                                                                                                                                                                                                                                                                                                            | <p>A review of your response this can be intrinsic or extrinsic</p> <p><b>Intrinsic feedback:</b> Is within the performer, they understand how the movement feels from feedback from the muscles. A footballer may understand why a skill was performed badly.</p> <p><b>Extrinsic feedback:</b> Is feedback from <b>outside</b> the performer, it is important as someone watching the skill can observe and explain what needs to be done to correct it. A coach could give you feedback about a skill</p>                                                                |

|                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Sporting Examples</b></p>                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>A miss-kick in football</b></p>    | <p><b>Input:</b><br/>The player uses selective attention sees the ball coming towards him, he looks at the ball and the players around him</p> <p><b>Decision making:</b><br/>From past experience in the long-term memory he decides what position to get into and when to move the body</p> <p><b>Output:</b><br/>He moves into position and swings his foot at the ball</p> <p><b>Feedback:</b><br/>He misses the ball. He received intrinsic feedback as his non kicking foot was too close leaving him unbalanced so missed the ball</p>   |
| <p><b>KO punch in boxing</b></p>        | <p><b>Input:</b><br/>A boxer sees that his opponent has his guard down the boxer throws a right hand at his opponent</p> <p><b>Decision making:</b><br/>From past experience in the long-term memory he decides what position to get into and when and how to throw the punch</p> <p><b>Output:</b><br/>He moves into position ready to throw a right-hand punch</p> <p><b>Feedback:</b><br/>He successfully knocked out his opponent. He received intrinsic feedback on how the movement felt and the position of himself and his opponent</p> |
| <p><b>Conversion kick (rugby)</b></p>  | <p><b>Input:</b><br/>A rugby player uses selective attention to block out the crowd he focuses on the angle of the kick and the wind speed</p> <p><b>Decision making:</b><br/>From past experience he decides to kick the ball slightly left of the near post. The action has been rehearsed many times</p> <p><b>Output:</b><br/>He positions himself to kick the ball</p> <p><b>Feedback:</b><br/>He kicked the ball straight through the posts he received intrinsic feedback on how the movement felt and the flight of the ball</p>        |

## Paper 2: Guidance

### Visual Guidance



Visual guidance is when the performer is shown the skill e.g. videos, pictures and Demonstrations

- Pictures must be clear
- Demonstrations must be seen more than once and be of good quality so poor movement is not copied
- Demonstrations must be clearly visible

#### When you should use it

Is good for beginners so they can see what the skill looks like and create a mental image of what the movement should be  
It is also good when it is not possible to hear verbal guidance e.g., during play

#### Advantages

- Can copy the movement
- Can be done with large groups

#### Disadvantages

- If demonstration is poor incorrect movement learnt
- Time consuming
- Videos are expensive
- Complex movements are difficult to recognise

### Verbal Guidance



Verbal guidance is when the performer is told information about how to complete the correct technique

- Information must be clear so it is understood
- Information must be concise (not confusing)
- Performer must be able to hear the information

#### When you should use it

Is good for more experienced performers who know what the movement should look like and can make sense of the information  
It is also used when demonstrations are not possible e.g. a break in play

#### Advantages

- Instructions can be given quickly
- Can be used during a performance
- No equipment is required

#### Disadvantages

- Some movements are difficult to explain
- Relies on the coach's communication skills being good enough for the performer to understand

### Manual Guidance



Manual guidance is where a coach physically supports or moves the performer to help them get into the correct position

- Tennis coach moving the racket arm in the correct range of motion for a forehand drive
- A trampoline coach supporting a front somersault
- A gymnastics coach supporting a balance

#### When you should use it

This can be used with performers of all abilities and skill levels  
it is particularly useful for beginners

#### Advantages

- Can get a feel for the movement
- Build's confidence
- Can help break down the movement into phases

#### Disadvantages

- The feeling is not actually the same as actually doing the skill unaided
- Performer can become dependent on the support
- Incorrect feel can lead to incorrect movement learnt
- Can only be used 1 on 1

### Mechanical Guidance



mechanical guidance is where the coach uses equipment to support the performer to help them with technique.

- Using a harness when learning backward somersaults on a trampoline
- Using floats to develop leg strength when swimming

#### When you should use it

This can be used with performers of all abilities and skill levels  
it is particularly useful for beginners  
It may be important to use mechanical guidance when the activity is dangerous such as using a harness when a performer is learning a new trampoline routine

#### Advantages

- Can get a feel for the movement
- Build's confidence
- Reduces danger

#### Disadvantages

- The feeling is not actually the same as actually doing the skill
- Performer can become dependent on the support
- Incorrect feel can lead to incorrect movement being learned
- Cannot be used in large groups

Paper 2: Types of feedback

| Type of Feedback         | Explanation                                                                                                                                                                                                                                                                            | Application                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Intrinsic                | <p>Intrinsic feedback is <b>within</b> the performer</p> <p>They understand how the movement feels from feedback from the muscles, it is important so performers can spot their own errors</p> <p>Intrinsic feedback should be developed so the performer is not reliant on others</p> | <p>Used by <b>experienced</b> performers as the skill is well learnt and they can make amendments to their own performance based on their internal feedback</p> <p>E.g. When a gymnast is performing a somersault, they will be able to use internal feedback from their muscles to readjust their body to successfully perform the skill</p> |
| Extrinsic                | <p>Extrinsic feedback is feedback from <b>outside</b> the performer</p> <p>Extrinsic is important as someone watching the skill can observe and explain what needs to be done to correct it</p>                                                                                        | <p>Used by <b>less experienced</b> performers as they are unlikely to detect their own errors</p> <p>E.g. When a gymnast is performing a somersault they may land falling backwards. A coach may tell them to stay tucked for longer, which will enable them to land on their feet</p>                                                        |
| Positive                 | <p>Being told what was good about your performance or technique</p> <p>This can be motivating especially for <b>beginners</b></p>                                                                                                                                                      | <p>A gymnast may be told that they had their knees straight and their toes pointed when performing a pike.</p>                                                                                                                                                                                                                                |
| Negative                 | <p>Being told what was wrong about your performance or technique.</p> <p>This is used by <b>experienced</b> performers so they can correct errors and improve technique</p>                                                                                                            | <p>A football player may be told why they were out of position which led to a goal. They can correct this in the future</p>                                                                                                                                                                                                                   |
| Knowledge of results     | <p>Focuses on whether your performance got the result you wanted</p> <p>They can focus on what needs to be done which can be applied through knowledge of performance</p>                                                                                                              | <p>It is useful for <b>beginners</b> to see how far they are from achieving the result they want e.g.:</p> <p>Did you make 9 tackles during the game</p> <p>Did you run 100m in 13 seconds</p>                                                                                                                                                |
| Knowledge of performance | <p>Focuses on the way you carried out the skill or technique</p> <p>It is useful for more <b>advanced</b> performers to see what needs to be done to improve technique</p>                                                                                                             | <p>Did you have a high knee lift when sprinting the 100m</p> <p>Did you use the correct grip when performing a backhand drive</p>                                                                                                                                                                                                             |

Sporting Examples



Intrinsic Feedback

An **experienced** performer uses intrinsic feedback from their muscles to adjust their body position to perform the skill successfully

Extrinsic Feedback

A **less experienced** performer gets extrinsic feedback from their coach to explain how their performance can be improved

Positive Feedback

A **beginner** gets positive feedback on how well they performed this can motivate them in future performances

Negative Feedback

An **experienced** performer may need telling what they did wrong so they can use this information to correct errors in performance or technique

Knowledge of Results

A **beginner** may use knowledge of results so they understand what needs to be done to improve performance this can be applied through knowledge of

Knowledge of Performance

An **experienced** performer may use knowledge of performance so they can improve future results

# Paper 2: Arousal & stress management

## Arousal

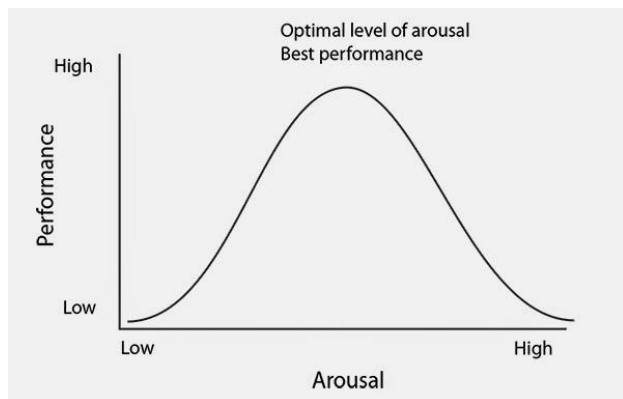
### Arousal:

A physical and mental (physiological and psychological) state of alertness or readiness, varying from deep sleep to intense excitement or alertness

### Optimum Arousal:

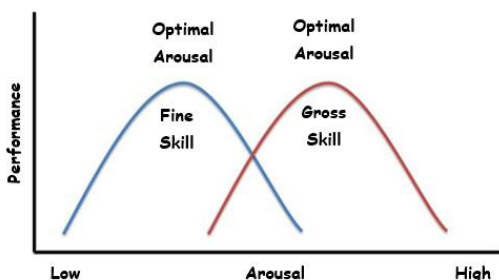
The point at which the best or optimal performance occurs

### Inverted U theory:



The theory states that as arousal increases so does performance up to an optimal point, after this point if arousal continues to rise performance will drop due to becoming over anxious

## Levels of arousal

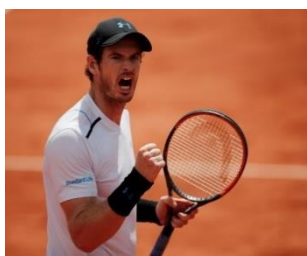


The optimal arousal will depend on the type of skill being performed:

**Fine movement skills** such as a golf put require lower levels of arousal

**Gross movement skills** such as a rugby tackle need higher levels of arousal

An elite performer will need a higher level of arousal than a beginner

| Technique                                                                                                                                                                                             | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                         | Application                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mental rehearsal</b><br><br> | <p>A technique used by many elite performers. It involves mentally practicing a skill or movement before physically doing it</p> <ul style="list-style-type: none"> <li>During the warm-up you may prepare mentally and physically for the activity</li> <li>During an event the performer goes through a sequence or skill they are about to perform in their mind. It helps clarify the skill &amp; improve confidence</li> </ul> | <p>A bobsleigh driver will visualise the route down the track prior to the race. This will mentally prepare for each twist and turn on the way down</p> <p>A rugby player will go through the skill and sequence before taking a penalty kick. This can improve confidence</p> |
| <b>Visualisation/imagery</b><br>                                                                                   | <p>This can be used in various ways:</p> <ul style="list-style-type: none"> <li>You can visualise yourself playing with a successful outcome</li> <li>You can visualise yourself in a stress-free environment to reduce anxiety so optimal performance can be achieved</li> </ul>                                                                                                                                                   | <p>A footballer may visualise where the ball going to travel into the goal before a penalty kick</p> <p>An archer may visualise themselves in a stress-free environment to reduce anxiety before shooting</p>                                                                  |
| <b>Deep breathing</b><br>                                                                                        | <p>If over aroused breathing can become shallow, deep breathing techniques can help reduce arousal. They should concentrate on taking long deep breaths</p>                                                                                                                                                                                                                                                                         | <p>Before a basketball player has a free throw they may focus on their breathing to reduce anxiety before taking the shot</p>                                                                                                                                                  |
| <b>Positive self-talk</b><br>                                                                                    | <p>It is easy to think of negative thought during a match this can have a negative effect on performance. One way of preventing this is by saying encouraging things to yourself</p>                                                                                                                                                                                                                                                | <p>A tennis player who is getting beat may prevent negative thoughts by saying encouraging things such as:</p> <ul style="list-style-type: none"> <li>"come on you can do this"</li> <li>"I can beat them"</li> <li>"Be patient, don't rush"</li> </ul>                        |

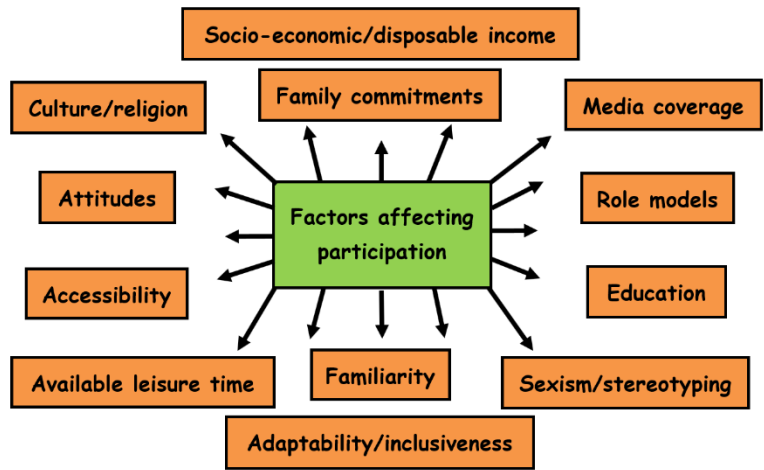
Paper 2: Aggression, personality, motivation

| Aggression                                                                                                                                                                                                      |                                                                                   |                                                                                                                                                                                                                                                                                     |                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Direct Aggression                                                                                                                                                                                               |                                                                                   | Indirect Aggression                                                                                                                                                                                                                                                                 |                                                                                    |
| <ul style="list-style-type: none"><li>• Involves physical contact to cause physical harm</li><li>• Normally outside the rules of the sport</li><li>• Players do it in the hope they do not get caught</li></ul> |                                                                                   | <ul style="list-style-type: none"><li>• Doesn't involve physical contact</li><li>• Could be a nasty remark</li><li>• Could be an act against an object to gain an advantage</li><li>• The intended harm is usually mental rather than physical to put them off their game</li></ul> |                                                                                    |
| Sporting examples                                                                                                                                                                                               |                                                                                   |                                                                                                                                                                                                                                                                                     |                                                                                    |
|                                                                                                                                 |  |                                                                                                                                                                                                    |  |
| Dangerous tackle (football)                                                                                                                                                                                     | High tackle (rugby)                                                               | Bowled at the batter (cricket)                                                                                                                                                                                                                                                      | Verbal abuse (football)                                                            |

| Personality                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                                                                                                                                                                                                |                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Introvert                                                                                                                                                                                                                                                          |                                                                                     | Extrovert                                                                                                                                                                                                                                                                                                                                      |                                                                                      |
| <p>An introvert is:</p> <ul style="list-style-type: none"><li>• Shy and quiet</li><li>• Reserved</li><li>• Thoughtful</li><li>• Enjoy being on their own</li></ul> <p>Associated with individual sports which require concentration, precision and low arousal</p> |                                                                                     | <p>An extrovert is:</p> <ul style="list-style-type: none"><li>• Active, talkative and outgoing</li><li>• Sociable (aroused by others)</li><li>• Enthusiastic</li><li>• Prone to boredom (when on own)</li></ul> <p>Associated with team sports which are fast paced (high arousal), concentration levels are low and gross skills are used</p> |                                                                                      |
| Sporting examples                                                                                                                                                                                                                                                  |                                                                                     |                                                                                                                                                                                                                                                                                                                                                |                                                                                      |
|                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                             |  |
| Running                                                                                                                                                                                                                                                            | Archery                                                                             | Rugby                                                                                                                                                                                                                                                                                                                                          | Boxing                                                                               |

| Motivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                                                                       |                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Intrinsic Motivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Extrinsic Motivation                                                                                                                                                                                                                                                                                              |                                                                                       |                                                                                                                                                 |
| <p>The drive comes from within you. It is driven by personal feeling e.g.</p> <ul style="list-style-type: none"><li>• Pride</li><li>• Satisfaction</li><li>• Accomplishment</li><li>• Self-worth</li><li>• Achievement</li></ul>                                                                                                                                                                                                                                                                                                                          | <p>The drive comes from external rewards such as:</p> <ul style="list-style-type: none"><li>• Money/Prizes</li><li>• Trophies</li><li>• Praise (feedback applause)</li></ul> <p><b>Tangible rewards:</b><br/>are those that you can touch</p> <p><b>Intangible rewards</b><br/>are those that you can't touch</p> |                                                                                       |                                                                                                                                                 |
| Evaluation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                   |                                                                                       |                                                                                                                                                 |
| <ul style="list-style-type: none"><li>• Any type of motivation is useful.</li><li>• Intrinsic is thought to be more effective as it doesn't rely on external rewards</li><li>• If you are only extrinsically motivated you may not try your best when no rewards are available</li><li>• Receiving extrinsic rewards may lead to feelings of self-satisfaction and pride that are associated with intrinsic motivation</li><li>• Overuse of extrinsic motivation can reduce intrinsic motivation as you can become reliant on receiving rewards</li></ul> |                                                                                                                                                                                                                                                                                                                   |                                                                                       |                                                                                                                                                 |
| Examples from sport                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                   |                                                                                       |                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>You can run a marathon for the intrinsic motivation of accomplishment and achievement</p>                                                                                                                                                                                                                      |   | <p>Winning a gold medal can be extrinsic motivation but can lead to feelings of pride and achievement which are intrinsic</p>                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Some performers get paid lots of money which can be extrinsic motivation</p>                                                                                                                                                                                                                                   |  | <p>A player who has enough money and has won all the major trophies (overuse of extrinsic motivation) can reduce their intrinsic motivation</p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>A player may be extrinsically motivated by praise from the manager</p>                                                                                                                                                                                                                                         |                                                                                       |                                                                                                                                                 |

Paper 2: Engagement patterns of different social groups

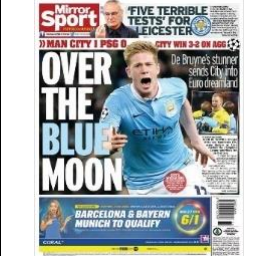


| Family/friends/peers            |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explanation                     | <p>You can be grouped by those you spend time with:</p> <ul style="list-style-type: none"><li>• Parents/guardians</li><li>• Relations</li><li>• Friends</li><li>• Siblings</li><li>• Classmates</li></ul>                                                                                                                                                                                                                      |
| Factors affecting participation | <p><b>Familiarity:</b> You may play the same sport as your family. E.g. you play table tennis because your dad plays table tennis</p> <p><b>Attitudes:</b> You may not play badminton because your friends don't play</p> <p><b>Family commitments:</b> You may not play sport because you have to look after younger siblings</p>                                                                                             |
| Age                             |                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Explanation                     | <p>People are split into groups based on their age:</p> <ul style="list-style-type: none"><li>• Children</li><li>• Teenagers</li><li>• Adults</li><li>• Retirees</li></ul>                                                                                                                                                                                                                                                     |
| Factors affecting participation | <p><b>Accessibility:</b> Many clubs have specific times in which they train/play. If you have other commitments, they cannot play</p> <p><b>Disposable income:</b> Money may be needed to pay bills rather than play sport</p> <p><b>Available leisure time:</b> Some people have little spare time due to work commitments</p> <p><b>Stereotyping:</b> Some people think you are too old to play sport if you are retired</p> |

| Gender                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explanation                     | <p>Gender groups are determined by a person's sex they are either:</p> <ul style="list-style-type: none"><li>• Male</li><li>• Female</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Factors affecting participation | <p><b>Role models:</b> There are a lack of female role models in many sports</p> <p><b>Media Coverage:</b> Lack of TV coverage of female sports</p> <p><b>Sexism:</b> Some girls do not want to play rugby as they think others will think they are masculine</p> <p><b>Stereotyping:</b> Some males do not want to play netball as they think it is a sport for females</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Race/religion/culture           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Explanation                     | <p>People are grouped based on their:</p> <ul style="list-style-type: none"><li>• Culture</li><li>• specific origin</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Factors affecting participation | <p><b>Cultural influences:</b> Family or peers influence whether someone does an activity or not</p> <p><b>Disposable income:</b> Due to economic grouping some people from minority groups may have less money. Someone without a permanent job would not have the money needed to access many sports</p> <p><b>Stereotyping:</b> People from different backgrounds are steered towards or away from certain activities. E.g. people from African origin may be encouraged to participate in athletics rather than activities such as swimming</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Disability                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Explanation                     | <p>People are split into groups dependent on their disability</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Factors affecting participation | <p><b>Adaptability:</b> There are many adapted activities available to people with disabilities such as wheel chair tennis and rugby Adapting sports for the disabled can be expensive and venues are limited</p> <p><b>Inclusiveness:</b> Sports sessions may not run for people with disabilities. This means it is not inclusive. They are unable to take part in mainstream activities</p> <p><b>Accessibility:</b> Lack of clubs and facilities in the local area for disabled groups as well as Physical barriers such as lack of ramps or pool hoists</p> <p><b>Disposable income:</b> Specialist equipment may be expensive</p> <p><b>Stereotyping:</b> Someone with a disability think they are unable to participate or others assuming those with disabilities are unable to take part</p> <p><b>Media coverage:</b> Although there has been an increase in media coverage it is limited</p> <p><b>Role models:</b> Due to the limited media coverage there is a lack of disabled role models to aspire to</p> |

# Paper 2: Commercialisation

## Commercialisation

| Sponsorship                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><br>                                                                                        | <p>A sponsor is an individual or group that provides support in the form of sponsorship in return it is seen by millions, via advertising, sponsorship and endorsement</p> <p>It can be for:</p> <ul style="list-style-type: none"><li>• An individual (Ronaldo sponsored by Nike)</li><li>• A team (Man City sponsored by Etihad)</li><li>• An event (Olympics sponsored by MacDonald's)</li></ul> <p>Different types of sponsorship include:</p> <ul style="list-style-type: none"><li>• Money</li><li>• Clothing and equipment</li><li>• Facilities</li></ul>                                                                                                                                                                                                             |
| Media                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <br><br><br> | <p>The media are a broad range of technologies that act as the main means of communication. They include:</p> <ul style="list-style-type: none"><li>• Printed media (newspapers and magazines)</li><li>• Broadcast media (TV and radio)</li><li>• Internet and social media</li></ul> <p><b>Sponsorship and the media</b></p> <ul style="list-style-type: none"><li>• Sponsors want to promote their products via the media as they can reach millions of potential customers</li><li>• Media companies need high viewing figures to make them more attractive to sponsors</li><li>• Media companies therefore pay sports clubs to allow them to televise matches as this attracts lots of viewers, making it more likely that they will get funding from sponsors</li></ul> |
| Sport                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                                               | <p>The player/performer and the sport need funding for:</p> <ul style="list-style-type: none"><li>• Facilities</li><li>• Equipment</li><li>• Competitions</li></ul> <p>Both the media and commercialisation can help promote sports. The media can also provide opportunities for the spectator</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

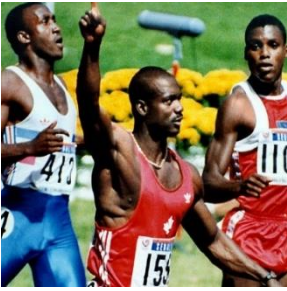
| The Advantages of Commercialisation    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                            |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sponsor or company</b>              | <p>Excellent and relatively inexpensive advertising of their products as:</p> <ul style="list-style-type: none"><li>• Media can show products during breaks in play</li><li>• Brand names can be seen around venues and on clothing</li><li>• Raised awareness of brands increase sales</li><li>• Products associated with high quality performance give it a high status</li><li>• Media hype gets more viewers which means more exposure of the brand</li></ul> | <br> |
| <b>Sport</b>                           | <ul style="list-style-type: none"><li>• Raised awareness = increase participation</li><li>• Higher profile = commercial interest</li><li>• Increases funding from sponsors</li><li>• Funding means that you can run events, develop the sport and facilities</li></ul>                                                                                                                                                                                            |                                                                                         |
| <b>player performer</b>                | <ul style="list-style-type: none"><li>• Paid millions to endorse products</li><li>• Train full time and focus on being the best in their sport</li><li>• Receive top quality products to use to improve performance</li></ul>                                                                                                                                                                                                                                     |                                                                                         |
| <b>Spectator</b>                       | <ul style="list-style-type: none"><li>• More coverage and top event</li><li>• Red button/Replays</li><li>• Player cam</li><li>• Buy the same clothes and equipment to their role models</li></ul>                                                                                                                                                                                                                                                                 |                                                                                         |
| <b>Official</b>                        | <ul style="list-style-type: none"><li>• Sponsors can provide kit</li><li>• Media can support correct decisions</li><li>• More likely to become role models</li></ul>                                                                                                                                                                                                                                                                                              |                                                                                         |
| The Disadvantages of Commercialisation |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                            |
| <b>Sponsor or company</b>              | <ul style="list-style-type: none"><li>• The media may not get a high number of viewers</li><li>• The company doesn't get the amount of exposure they wanted</li><li>• The player/team doesn't perform well</li><li>• The player who becomes a bad role model due to cheating, violence, infidelity, racism etc.... affects popularity and sales</li></ul>                                                                                                         |                                                                                         |
| <b>Sport</b>                           | <ul style="list-style-type: none"><li>• Fixtures can be changed to maximise viewing opportunities</li><li>• Breaks in play for advertising purposes</li><li>• Minority sports not shown on TV which decreases sponsorship</li><li>• Negative reporting can give a sport a bad name</li><li>• Clothing and rule changes are more appealing to viewers</li></ul>                                                                                                    |                                                                                       |
| <b>player performer</b>                | <ul style="list-style-type: none"><li>• Event times make it less favourable for performers</li><li>• Withdrawal of sponsorship could cause financial difficulties</li><li>• Required appearances take time away from training</li><li>• Pressure to win at all costs to keep a sponsor</li><li>• No privacy and negative reporting can lose sponsorship</li></ul>                                                                                                 |                                                                                       |
| <b>Spectator</b>                       | <ul style="list-style-type: none"><li>• High costs for subscription fees to sports channels</li><li>• Pay per view for certain events</li><li>• High cost of merchandise</li><li>• Minority sports not shown</li><li>• Sponsors keep best tickets for hospitality</li></ul>                                                                                                                                                                                       |                                                                                       |
| <b>Official</b>                        | <ul style="list-style-type: none"><li>• Under the spotlight for all decisions as they can be replayed, so poor decisions are highlighted undermining the official</li><li>• They have to wear the sponsors logo</li></ul>                                                                                                                                                                                                                                         |                                                                                       |

# Paper 2: Technology

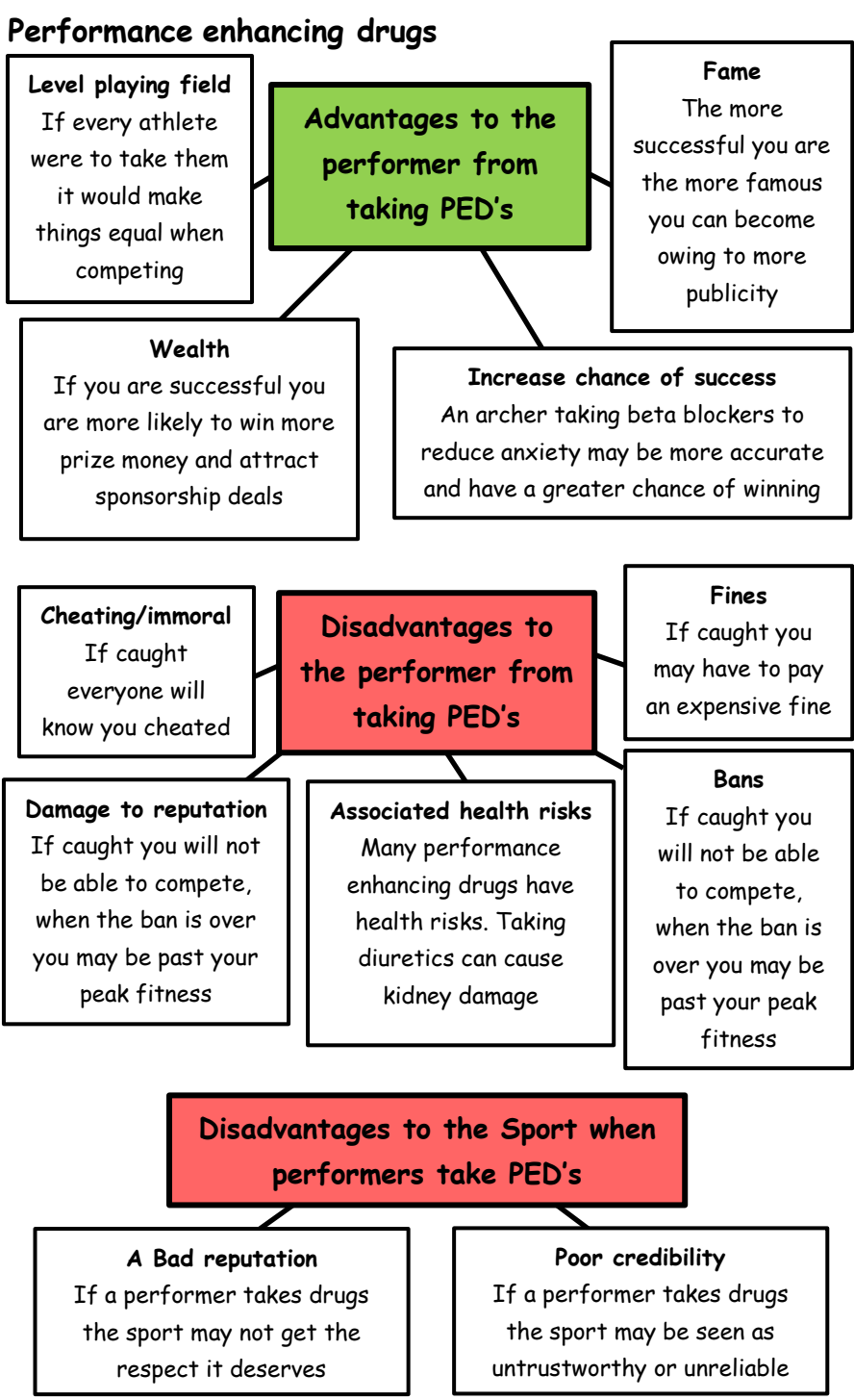
## The Advantages of Technology

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>To the sponsor</b>             | <ul style="list-style-type: none"> <li>Easier to see logos due to enhanced viewing quality</li> <li>More coverage of sports provides more opportunities to see products</li> <li>Advertising opportunities during breaks on TV</li> <li>Better standard of play using improved equipment encourages more sales</li> </ul>                                                                                                                                                                                                                                         |    |
| <b>To the performer and sport</b> | <ul style="list-style-type: none"> <li>Improved equipment, clothing and footwear to improve <b>performance</b> such as running blades for disabled athletes</li> <li>Improved equipment, clothing and footwear to improve <b>safety</b> such as ski helmets and head guards in boxing</li> <li>Improved security at venues such as cameras and metal detectors</li> <li>Better facilities such as velodromes for cycling</li> <li>Better decisions by officials due to technology support such as VAR</li> <li>Better drug testing to prevent cheating</li> </ul> |    |
| <b>To the spectator</b>           | <ul style="list-style-type: none"> <li>Multiple viewing platforms such as TV tablet, mobile phone</li> <li>Better picture and sound creating a better viewing experience</li> <li>Interactive options such as player cam</li> <li>Increases enjoyment as a result of better performances due to technology</li> <li>Increased interaction at live games for decisions VAR and Hawkeye</li> </ul>                                                                                                                                                                  |   |
| <b>To the official</b>            | <ul style="list-style-type: none"> <li>Technology support means less chance of errors as it provides additional help to reach the right decision (VAR, Hawkeye, Hot spot)</li> <li>Improved timing devices mean more accurate results</li> <li>Wifi allows for improved communication with officials and technicians</li> </ul>                                                                                                                                                                                                                                   |  |

## The Disadvantages of Technology

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                       |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>To the sponsor</b>             | <ul style="list-style-type: none"> <li>They need to provide more funding to buy equipment for performers so they stay at the top of their game and give access to the best medical support to keep them fit such as ice baths and hypoxic tents</li> <li>Sponsored players may be found cheating which reflects badly on the sponsor</li> </ul>                                                                                                |    |
| <b>To the performer and sport</b> | <ul style="list-style-type: none"> <li>The cost of equipment increases</li> <li>State of the art facilities cost more</li> <li>Technology can go wrong</li> <li>Repairs are expensive</li> <li>Technology can be inaccurate</li> <li>The human part of lucky decisions is lost</li> <li>People can watch at home rather than attend live games</li> <li>Players/performers unable to afford modern technology are at a disadvantage</li> </ul> |    |
| <b>To the spectator</b>           | <ul style="list-style-type: none"> <li>Breaks in play waiting for decisions is boring</li> <li>Technology changes the nature of the sport</li> <li>They have to pay to view some sports</li> <li>They have to pay for specialist sports channels</li> <li>Technology is expensive 3D and ultra HD TV's</li> <li>They don't experience the excitement of watching the match live</li> </ul>                                                     |   |
| <b>To the official</b>            | <ul style="list-style-type: none"> <li>They become reliant on the technology</li> <li>Technology can go wrong</li> <li>Technology highlights the official's errors</li> <li>Decisions are challenged more owing to loss of respect for officials and judgement</li> </ul>                                                                                                                                                                      |  |

Paper 2: Performance enhancing drugs



| Drug                | Effect on Performance                                                                                                                                                |                                                                                                | Health Risks                                                                                                                                                                                  | Which Sports                                                                                                                                                         |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Anabolic Agents     | allows performers to train longer and harder It increases protein synthesis helping develop lean muscle mass and speeds up recovery time                             |                                                                                                | <ul style="list-style-type: none"><li>Liver damage/CHD</li><li>Testicular atrophy</li><li>Infertility</li><li>Skin problems</li><li>Mood swings</li><li>Aggression</li><li>Baldness</li></ul> | Activities that require power: <ul style="list-style-type: none"><li>Sprinters</li><li>Rugby players</li><li>Weightlifting</li><li>Boxers</li><li>Baseball</li></ul> |
| Beta Blockers       | Beta blockers improve fine motor control by slowing heart rate and reducing anxiety which allow the performer to remain calm and controlled                          |                                                                                                | <ul style="list-style-type: none"><li>Nausea</li><li>Sleep disturbance</li><li>Tiredness/weakness</li><li>Lower blood pressure</li><li>Slow heart rate</li></ul>                              | Activities that require precision: <ul style="list-style-type: none"><li>Archery/shooting</li><li>Snooker</li><li>Gymnastics</li></ul>                               |
| Diuretics           | Diuretics achieve quick weight loss (fluids). They also mask other drugs making them harder to detect                                                                |                                                                                                | <ul style="list-style-type: none"><li>Dehydration</li><li>Nausea</li><li>headaches</li><li>Heart/kidney failure</li></ul>                                                                     | Drug cheats and sports with weight categories: <ul style="list-style-type: none"><li>Boxing</li><li>Jockey</li></ul>                                                 |
| Narcotic Analgesics | Narcotic analgesics increases the performers pain threshold so can mask injuries, also give a feeling of invincibility                                               |                                                                                                | <ul style="list-style-type: none"><li>Nausea/vomiting</li><li>Anxiety/depression</li><li>Kidney/liver damage</li><li>Addiction</li><li>Risk further injury</li></ul>                          | Any sport that a performer is injured: <ul style="list-style-type: none"><li>Boxers</li><li>Sprinters</li><li>Football</li></ul>                                     |
| Peptide Hormones    | EPO                                                                                                                                                                  | Erythropoietin (EPO) Can increase red blood cell production increasing O <sub>2</sub> delivery | <ul style="list-style-type: none"><li>Thickening of blood</li><li>Blood clots</li><li>Strokes</li><li>Heart attack</li></ul>                                                                  | Aerobic events e.g. long distance: <ul style="list-style-type: none"><li>Running</li><li>Cycling</li></ul>                                                           |
|                     | HGH                                                                                                                                                                  | Human Growth Hormone Helps muscle mass and burns fat                                           | <ul style="list-style-type: none"><li>Arthritis</li><li>Heart failure</li><li>Abnormal feet/hands</li></ul>                                                                                   | Strength events: <ul style="list-style-type: none"><li>Weightlifting</li><li>Sprinting</li><li>Rugby</li></ul>                                                       |
| Stimulants          | Stimulants increase alertness, reduce tiredness and increase heart rate (therefore oxygen delivery)                                                                  |                                                                                                | <ul style="list-style-type: none"><li>Insomnia</li><li>Anxiety</li><li>Aggression</li><li>Irregular heart rate</li></ul>                                                                      | Alert/aggressive sports: <ul style="list-style-type: none"><li>Rugby</li><li>Boxing</li><li>Ice hockey</li></ul>                                                     |
| Blood Doping        | Blood doping involves the removal of blood a few weeks prior to competition. The blood is frozen and re-injected just before competition. (increase red blood cells) |                                                                                                | <ul style="list-style-type: none"><li>Infection</li><li>Thickening of blood (viscosity)</li><li>Heart attack</li><li>Embolism (blockage of vessel)</li></ul>                                  | Aerobic events e.g. long distance: <ul style="list-style-type: none"><li>Running/cycling</li><li>Cycling</li><li>Swimming</li><li>Games players</li></ul>            |

Paper 2: Conduct of performers

Sportsmanship and gamesmanship

Sportsmanship

Sportsmanship is the sporting behaviour you would like to see in sport. Performers display good conduct and do not try to win by unfair means.

Sportsmanship examples:

- Shows respect to their opponents and officials
- Shakes hands with opponents
- Kicking the ball out of play if an opponent is injured
- Being honest if the ball is out or if they break a rule

Sportsmanship creates:

- Good role models
- Positive image for the sport
- Satisfaction to know you have won honestly



Gamesmanship

Gamesmanship is the type of behaviour that you should not see from performers in sport. It is bending the rules (not breaking them) to gain an unfair advantage

Gamesmanship examples:

- Playing for time if winning
- Entering a weaker team if the following match is more important
- Sledging in cricket

Gamesmanship creates:

- Bad role models
- negative image for the sport
- Dissatisfaction to know you have won due to an unfair advantage



Spectator behaviour

Advantages of spectators

Creation of atmosphere:

- A large crowd creates excitement interest and enjoyment
- Player can be more motivated
- Interaction for the fans
- Positive experience leads to more fans who want to attend
- Raises income and raises the profile of the sport, increasing participation

Home-field advantage:

- Teams and individual performers can gain an advantage from being in familiar surroundings, with fan support and referee bias.
- You feel lifted with the majority of spectators cheering for you and so you play better

Disadvantages of spectators

Increasing pressure:

- With spectators wanting you to win can lead to an increase in anxiety causing performance to drop

Safety costs/concerns:

- It is expensive to employ security staff and repair damage caused by spectator behaviour

Negative effect on participation numbers among young people:

- The reputation of a sport due to spectator behaviour can cause a drop in the number of young people interested and therefore a loss of potential elite performers

Potential for crowd trouble/hooliganism:

- Hooliganism can lead to fans not attending matches leading to a loss in ticket sales, support and sponsorship

Reasons for hooliganism

- Rivalries (local derby)
- Hype (from media)
- Fuelled by drugs/alcohol
- Gang culture
- Frustration (official's decision)
- Displays of masculinity

Strategies to prevent hooliganism

- Bans, fines, prison
- Increased security
- Segregation
- Early kick-offs
- All seater stadiums
- Alcohol restrictions
- Education



Hooliganism can often be fuelled by drinking excessive alcohol

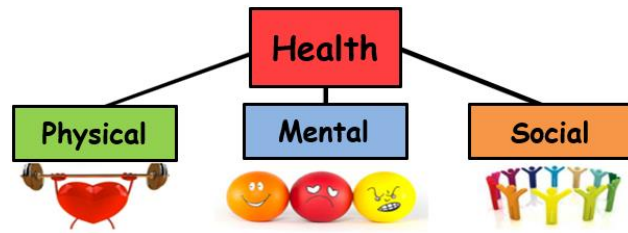


CCTV at stadiums help prevent unwanted Hooliganism



The intense rivalry between Celtic and rangers leads to fans being segregated

## Paper 2: Health, wellbeing and fitness



### Physical health and wellbeing

| Regular Exercise                    | Explanation of Health Benefit                                                                                                                                                                 |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improved heart function             | A stronger heart means that it pumps more efficiently so there is less strain on the heart reducing the chance of heart attacks                                                               |
| Improved efficiency of body systems | The musculoskeletal and cardiorespiratory systems are more efficient with regular exercise. Weight bearing exercise increases bone density reducing the chance of osteoporosis                |
| Reduce the risk of some illness     | Exercise reduces blood pressure so there is less chance of having a heart attack or stroke. Exercise also improves the immune system so you are less likely to get ill                        |
| Ability to do everyday tasks        | Due to improved body systems you can function more easily. You can do everyday tasks without getting tired such as gardening, running up the stairs. You are not slowed down by excess weight |
| Avoid being obese                   | Exercise burns calories so you are less likely to be overweight or obese. Obesity is linked to several health problems such as heart attacks, stroke and diabetes                             |

### Fitness

| Regular Exercise                    | Explanation of Health Benefit                                                                                                                                                                 |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improved fitness                    | A stronger heart means that it pumps more efficiently so there is less strain on the heart reducing the chance of heart attacks                                                               |
| Reduced chance of injury            | The musculoskeletal and cardiorespiratory systems are more efficient with regular exercise. Weight bearing exercise increases bone density reducing the chance of osteoporosis                |
| Supporting physical ability to work | Due to improved body systems you can function more easily. You can do everyday tasks without getting tired such as gardening, running up the stairs. You are not slowed down by excess weight |

### Mental (emotional) health and well being

| Regular exercise                          | Achieved Health benefits                                                                                                                                                                  |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reduced stress/tension                    | Taking part in exercise can take your mind of your problems from work, home or school. This helps prevent stress related illness such as depression                                       |
| An increase in serotonin levels           | When you exercise you release a chemical called serotonin also known as the 'feel good hormone'. When serotonin is released it makes you feel good                                        |
| Ability to control emotions               | When playing sport, you need to be disciplined as you need to follow the rules and stick to tactics or roles. This can help you control your emotions, improve confidence and self-esteem |
| Increase in self-confidence & self-esteem | Exercise can make you feel part of something. Being part of a team can give you confidence. The more you exercise you do the better you perform this can also improve confidence          |

### Social health and wellbeing:

This is when basic human needs are met:

- Food
- Shelter
- Clothing

You have friendship and support, some value in society is socially active and has little stress in social circumstances. It works together with physical and mental health

#### Social Health benefits from exercise

Regular exercise allows us to meet new people and make new friends

Regular exercise allows us to meet and socialise with our current friends

Regular exercise can improve our cooperation skills

Regular exercise can increase our social activities

### Different age groups:



An elderly person may benefit socially by meeting people so they are not lonely

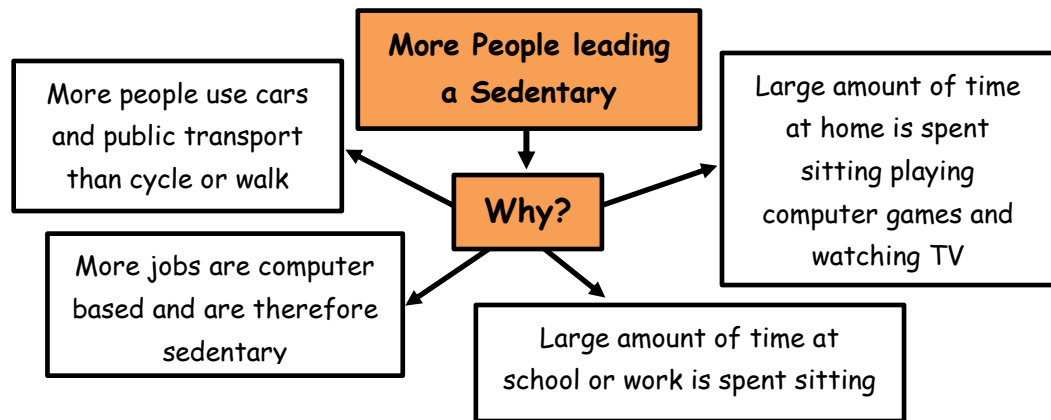


A child may benefit from exercise by improving their social skills

# Paper 2: Consequences of a sedentary lifestyle

## The consequences of a sedentary lifestyle

A sedentary lifestyle Is a lifestyle where there is little or no exercise



| Health risks due to a sedentary lifestyle | Explanation                                                                                                                                                                        |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Obesity/excessive weight gain             | Due to inactivity and a reduction in metabolic rate                                                                                                                                |
| Poor self-esteem                          | Being overweight or obese can lead to depression, a lack of brain function and release of serotonin                                                                                |
| Hypertension (high blood pressure)        | Lack of exercise and a poor diet can lead to an inefficient heart and potentially damaged blood vessels                                                                            |
| Poor sleep                                | Lack of oxygen delivery to cells and excessive weight have been linked to snoring and restless legs. This disturbs sleep, as does not doing enough exercise to feel tired at night |
| Type 2 diabetes                           | Being overweight can increase the risk of developing type 2 diabetes                                                                                                               |
| Heart disease and stroke                  | High blood pressure and cholesterol increase the risk of a heart attack and a stroke                                                                                               |
| Lethargy (lacking energy)                 | Low oxygen levels can lead to a feeling of fatigue and tiredness                                                                                                                   |

## Obesity

Obesity is a term used to describe people with a large fat content, caused by an imbalance of calories consumed compared to energy expenditure

A person is considered obese if they have a body mass index (BMI) of over or over 20 % above standard weight to height ratio

If body fat gets to this level it can have serious health implications

## Obesity can lead to ill health

| Physical                                                                                                                                                                             | Mental                                                                                                                         | Social                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| It is linked to: <ul style="list-style-type: none"><li>Types of cancer</li><li>Heart disease</li><li>Heart attacks</li><li>Type 2 diabetes</li><li>High cholesterol levels</li></ul> | It is linked to: <ul style="list-style-type: none"><li>Depression</li><li>Low self esteem</li><li>Loss of confidence</li></ul> | It is linked to: <ul style="list-style-type: none"><li>An inability to socialise (loss of confidence)</li><li>Inability to leave home (due to mobility)</li></ul> |
|                                                                                                  |                                            |                                                                               |

## How obesity can affect performance

**Limits cardiovascular endurance:** Unable to exercise without stopping repeatedly, due to the excess weight and the drop-in efficiency of the cardio-respiratory system

**Limits flexibility:** Excess fat around the joints restricts movement

**Limits agility:** Excess weight makes it harder to change direction quickly

**Limits speeds/power:** Excess weight makes it harder to move fast



# Paper 2: Somatotypes

## Somatotypes

There are many different body types. The classification of different body types is called somatotyping. It is a term that describes someone's physical build. Having a certain body types makes you more suitable to some activities than others There are three main somatotypes:

- Ectomorph
- Mesomorph
- Endomorph

| Somatotype                                                                                                         | Characteristics                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Ectomorph</div> <div></div>   | <div>Key characteristics are:</div> <ul style="list-style-type: none"><li>• Long thin frame</li><li>• Narrow shoulders &amp; Hips</li><li>• Does not build muscle easily</li><li>• Generally, does not store fat easily</li></ul> <div>Individuals with an extreme ectomorph are suited to activities where being light or tall is an advantage as there is less weight to carry</div> |
| <div>Mesomorph</div> <div></div>  | <div>Key characteristics are:</div> <ul style="list-style-type: none"><li>• Low levels of fat</li><li>• Solid build</li><li>• Wide shoulders</li><li>• Narrow hips</li></ul> <div>Individuals with an extreme mesomorph body type are suited to activities requiring power, speed and strength</div>                                                                                   |
| <div>Endomorph</div> <div></div> | <div>Key characteristics are:</div> <ul style="list-style-type: none"><li>• Wide hips</li><li>• Narrow shoulders</li><li>• Has a tendency to store fat</li><li>• Sometimes referred to as 'pear shaped'</li></ul> <div>Individuals with an extreme endomorph body type are suited to activities requiring power or where added weight is an advantage</div>                            |

## Sporting examples:

### Ectomorph:

Ectomorphs use their low body fat and weight to jump higher on the long jump and to run long distances without the excess weight from fat and muscle bulk



Sprinter



Marathon runner

### Mesomorph:

Mesomorphs can use their speed and strength to generate power in the legs when sprinting. They also use it to punch in boxing



Sprinter



Boxer

### Endomorph:

Endomorphs can use their bulk to add momentum when throwing the shot-put. They can also use it to overpower or resist opponents in rugby



Shot putter



Rugby prop forward

# Paper 2: Energy use, diet, nutrition and hydration

## Balanced diet

- Eating the right foods in the right amounts. This will allow us to exercise and work properly
- Insufficient nutrients can cause ill health such as anaemia, rickets and scurvy
- No single food contains all of the nutrients the body needs, so you need to eat a variety of foods in the correct proportions



## Reasons for a balanced diet

- Any unused energy is stored as fat, which could cause obesity (particularly saturated fat)
- To provide suitable energy that can be used for activity
- To provide the nutrients needed for energy, growth and hydration

## Energy use

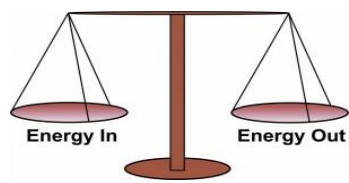
- Energy is measured in calories (Kcal) and is obtained from the food we eat
- The average adult male requires 2500 Kcal per day
- The average adult female requires 2000 Kcal per day

## The number of calories is dependent on

- Age
- Gender
- Height
- Energy expenditure (exercise)

## The energy balance

- If we eat too much in relation to the amount of activity we do, we will become overweight
- If we eat too little in relation to the amount of activity we do, we will become underweight



## Variety as well as balance

You need a balance of food from the different groups and a variety from within each group.

In our diet we require:

- Carbohydrates
- Fats
- Proteins
- Vitamins and minerals

| Nutrition                        | Explanation                                                                                                                                                                                                   | Foods                                                                                                                                                                                            |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Carbohydrates</b><br>         | Carbohydrates are the main preferred energy source for all types of exercise of all intensities (aerobic and anaerobic)<br>A balanced diet should contain 55% - 60% carbohydrate                              | <ul style="list-style-type: none"><li>• Bread</li><li>• Pasta</li><li>• Rice</li><li>• Potatoes</li></ul>                                                                                        |
| <b>Fats</b><br>                  | Fats are an energy source; they provide more energy than carbohydrates but only at low intensity. It is easily stored in the body and can lead to weight gain<br>A balanced diet should contain 25% - 30% fat | <ul style="list-style-type: none"><li>• Butter</li><li>• Oil</li><li>• Fatty meats</li><li>• Fried food</li></ul>                                                                                |
| <b>Protein</b><br>               | Protein are for growth and repair of muscle tissue. It is used by performers such as sprinters to aid muscle growth (hypertrophy)<br>A balanced diet should contain 15% - 20 % protein                        | <ul style="list-style-type: none"><li>• Cheese</li><li>• Milk</li><li>• Eggs</li><li>• Fish</li><li>• Meat</li></ul>                                                                             |
| <b>Vitamins and minerals</b><br> | Vitamin and minerals are for maintaining the efficient working of the body systems and general health this includes keeping our bones strong and our immune system working                                    | <b>Vitamins:</b> <ul style="list-style-type: none"><li>• Fresh fruit</li><li>• Vegetables</li></ul> <b>Minerals:</b> <ul style="list-style-type: none"><li>• Meat</li><li>• Vegetables</li></ul> |

## Reasons for maintaining water balance (hydration)

**Dehydration:** excessive loss of body water, such that it interrupts the function of the body  
**Hydration:** having enough water to enable normal functioning of the body  
**Rehydration:** Consuming water to restore hydration  
**Water balance:** taking in water (hydrating) to prevent dehydration due to loss of fluids

## Effects of dehydration

|                                                 |                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------|
| Blood thickening (increased viscosity)          | Slows blood flow which preventing the delivery of oxygen                     |
| Increase in heart rate causing irregular rhythm | The heart has to work harder to deliver oxygen to the working muscles        |
| Increase in body temperature                    | Causes overheating, leading to heat exhaustion                               |
| Slowing of reactions                            | Increases reaction time, which can slow the time to make important decisions |
| Muscle fatigue                                  | Causes cramp in muscles                                                      |