

Higher PE

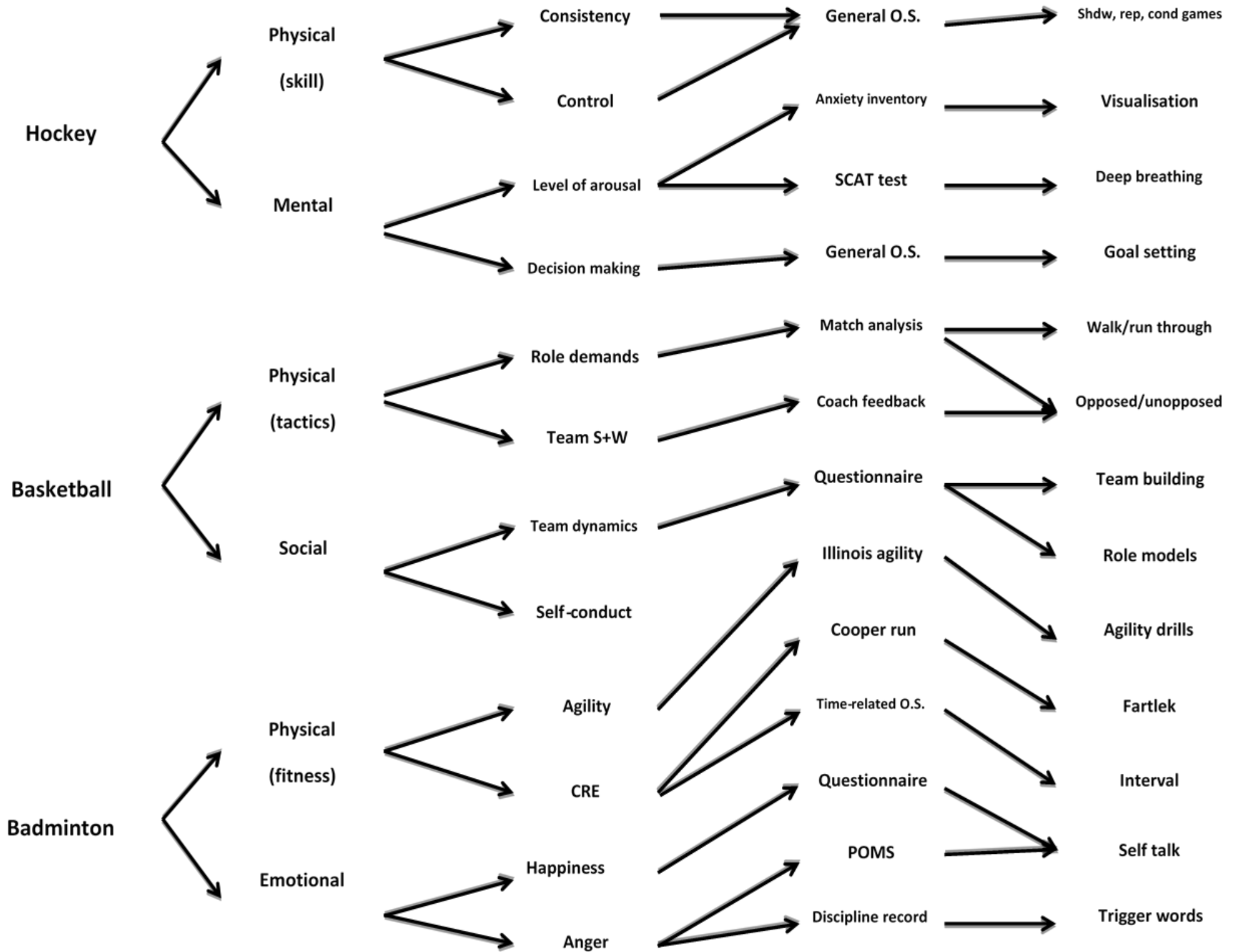
Physical (fitness) + Emotional

Badminton

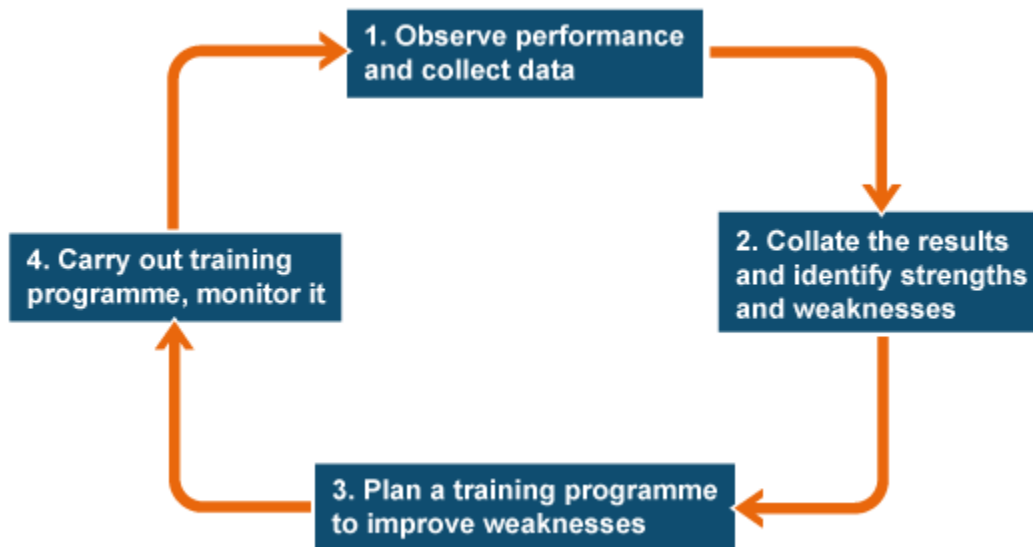


Eyemouth High School

Name:



Cycle of Analysis



Physical (Fitness)

SUB FACTORS

AGILITY

Definition

The ability to change direction quickly whilst remaining balanced and in control of your movements. Agility is required across a host of different sports; in invasion games, changes of direction can be used to create and exploit space whilst in racquet sports a change of direction may be required to chase down a variety of different shots.

Impact on Performance

Agility helps when competing in activities that require you to change direction quickly whilst keeping balanced and in control. For example, agility is important in football as it enables a player to turn quickly and evade challenges. In badminton, agility helps a player move around the court reasonably smoothly reaching shuttles at the back and front of the court. A lack of agility would make it difficult for a player to reach shuttles played to different areas of the court causing them to be under pressure.

CARDIO-RESPIRATORY ENDURANCE (CRE)

Definition

The ability of the heart and lungs to keep supplying oxygenated blood to the working muscles and delay the onset of lactic acid. A performer's CRE levels can determine how much energy they have in the latter stages of performances and can also effect how fresh the mind is in these latter moments.

Impact on Performance

Poor CRE will result in a performer becoming breathless more quickly and unable to keep up with play or maintain a high skill level. Decision making may also be affected and longer rest periods will be needed to aid recovery. A performer with good CRE will be able to work to a high level and maintain a high skill level. The energy required to do this is supplied aerobically, which requires your heart, lungs and blood system to supply oxygen to working muscles throughout a performance. A high level of CRE will allow you to do this for a long period of time, delaying the onset of fatigue.

Emotional

SUB FACTORS

ANGER

Definition

An emotion that a performer may feel when frustrated, offended or wronged. Feelings of anger can be very strong and can have negative impacts on one's ability to concentrate and make correct decisions.

Impact on Performance

Opponents look to ways of irritating each other in the hope of putting them off. Being able to control aggression usually makes the difference in a performance. Anger without control will mostly affect performance negatively and will increase the number of poor decisions made. If controlled effectively, anger can be channelled to boost determination and motivation to work hard and execute skills effectively.

HAPPINESS/SADNESS

Definition

A reflection of how optimistic or negative a performer is feeling. Someone who is happy will be high in confidence and can make decisions with conviction whilst those who are sad will be low on confidence and lose focus as they are distracted by negative feelings.

Impact on Performance

Happiness will affect a performance positively. Being in a happy state of mind before a performance will increase confidence in executing skills and self-belief in performing them well. Sadness will impact a performance negatively. This can lead to a lack of confidence in performing skills, leading to a poorer level of execution. Happiness and sadness can affect confidence, self-belief, resilience and levels of optimism and pessimism before and during a performance.

Methods to Gather Data

Physical

12 Minute Cooper Run

Aim: To measure aerobic capacity within a maximal indirect field test.

Aspect: Cardio Respiratory Endurance.

Equipment: A square on the astro which is 40mx20m, enough marking cones to place one every 10m of the track, stopwatch.

Procedure:

Complete a thorough warm-up and dynamic stretching.

Place cones every 10m for easy calculation of distance covered.

The participant aims to complete as many laps as possible within the 12 minute time limit whilst running.

On the completion of 12 minutes the recorded counts up the completed laps and the number of completed metres on the final lap.

Date of Initial Test:

Initial Test Distance:

Norms

Males	Poor	Below Average	Average	Above Average	Excellent
15-16 Years	<2200m	2200-2299m	2300-2499m	2500-2800m	>2800
17-19 Years	<2300m	2300-2499m	2500-2699m	2700-3000m	>3000m

Females	Poor	Below Average	Average	Above Average	Excellent
15-16 Years	<1600m	1600-1699m	1700-1999m	2000-2100m	>2100
17-19 Years	<1700m	1700-1799m	1800-2099m	2100-2300m	>2300m

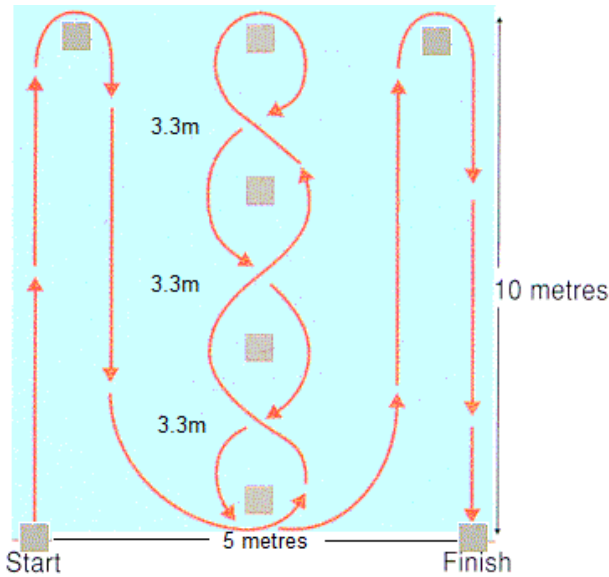
Initial Test Distance in relation to norms:

Illinois Agility Run Test

The objective of the Illinois Agility Run Test is to monitor the development of the athlete's agility.

- Flat non-slip surface
- 8 cones
- Stopwatch

This test requires the athlete to run the line route in the diagram below as fast as possible.



- The athlete warms up for 10 minutes
- The athlete lies face down on the floor at the "Start" cone
- The assistant gives the command "GO" and starts the stopwatch.
- The athlete jumps to his/her feet and negotiates the course around the cones following the red line route shown in the diagram to the finish
- The assistant stops the stopwatch and records the time when the athlete passes the "Finish" cone

Normative data for the Illinois Agility Run Test

The following are national norms for 16 to 19 year olds.

Gender	Excellent	Above Average	Average	Below Average	Poor
Male	<15.2 secs	15.2 - 16.1 secs	16.2 - 18.1 secs	18.2 - 19.3 secs	>19.3 secs
Female	<17.0 secs	17.0 - 17.9 secs	18.0 - 21.7 secs	21.8 - 23.0 secs	>23.0 secs

Date	Result	Comment

Time Related Observation Schedule (Movement)

Name of Performer _____

Position _____

Name of Observer _____

Date _____

Watch the game to help you analyse how fit you were when playing in a game. The time recorded is 50 minutes.

KEY: / for every occasion they move in the specified way.

TIME Minutes	WALKING	JOGGING	HALF PACE	RUNNING	SRINTING
1 st half					
0-5					
6-10					
11-15					
16-20					
21-25					
Total					
2 nd half					
0-5					
6- 10					
11-15					
16-20					
21-25					
Total					

Analyse your data and compare your first- and second-half performance.

During the first half I found that I was

During the second half I found that I was



Emotional

Profile of Mood Status

The Profile of Mood Status (POMS) test is a psychological test which asks performers to indicate how they have been feeling in the past week based on a series of statements. The performer will select “not at all”, “a little”, “moderately”, “quite a lot” or “extremely” to indicate how they feel.

The athlete can use their test results to gauge their levels of tension, depression, anger, vigour, fatigue and confusion.

Profile of Mood Status Test

To take the test visit the link below;

<http://www.brianmac.co.uk/poms.htm>

Normative Data

Below is a chart showing the norms taken from a large groups of international, club and recreational athletes.

Group	Tension	Depression	Anger	Vigour	Fatigue	Confusion
International	5.66	4.38	6.24	18.51	5.37	4.00
Club	9.62	8.67	9.91	15.64	8.16	7.38
Recreational	6.00	3.11	3.60	17.78	6.37	4.84

SPORT EMOTION QUESTIONNAIRE

Below you will find a list of words that describe a range of feelings that sport performers may experience. Please read each one carefully and indicate on the scale next to each item how you feel **right now, at this moment, in relation to the *upcoming* competition**. There are no right or wrong answers. Do not spend too much time on any one item, but choose the answer which best describes your feelings right now in relation to the upcoming competition.

	Not at all	A little	Moderately	Quite a bit	Extremely
Uneasy	0	1	2	3	4
Upset	0	1	2	3	4
Exhilarated	0	1	2	3	4
Irritated	0	1	2	3	4
Pleased	0	1	2	3	4
Tense	0	1	2	3	4
Sad	0	1	2	3	4
Excited	0	1	2	3	4
Furious	0	1	2	3	4
Joyful	0	1	2	3	4
Nervous	0	1	2	3	4
Unhappy	0	1	2	3	4
Enthusiastic	0	1	2	3	4
Annoyed	0	1	2	3	4
Cheerful	0	1	2	3	4
Apprehensive	0	1	2	3	4
Disappointed	0	1	2	3	4
Angry	0	1	2	3	4
Energetic	0	1	2	3	4
Happy	0	1	2	3	4
Anxious	0	1	2	3	4
Dejected	0	1	2	3	4

Scoring Instructions:

Anxiety = (uneasy + tense + nervous + apprehensive + anxious)/5 = _____

Dejection = (upset + sad + unhappy + disappointed + dejected)/5 = _____

Excitement = (exhilarated + excited + enthusiastic + energetic)/4 = _____

Anger = (irritated + furious + annoyed + angry)/4 = _____

Happiness = (pleased + joyful + cheerful + happy)/4 = _____

The response stem can be changed to refer to *current* or *previous* competition as required although the SEQ has only been currently validated for pre-competition use.



Benefits/Limitations of methods

Physical

Method	Benefits	Limitations
12 Minute Cooper Run	<ul style="list-style-type: none"> Valid – Recognised method to find level of CRE Practicability – Easy to set up and complete Reliability – Provides accurate, reliable results that can be used to create a PDP Standardised – the test is completed the same way worldwide Standardised – results can be compared to norms to find accurate level of fitness 	<ul style="list-style-type: none"> Reliability – maximal test therefore requires performer to give full effort to give accurate results
Illinois Agility Test	<ul style="list-style-type: none"> Valid – Recognised method to find level of agility Reliability – Provides accurate, reliable results that can be used to create a PDP Standardised – the test is completed the same way worldwide Standardised – results can be compared to norms to find accurate level of fitness 	<ul style="list-style-type: none"> Practicability – requires course to be set up accurately to provide accurate results
Time-Related Observation Schedule	<ul style="list-style-type: none"> Valid - Can be used to find strengths and weaknesses Practicability - it is a permanent record of performance Practicability - No specialist equipment needed Reliability - Can increase reliability by videoing 	<ul style="list-style-type: none"> Practicability - Time consuming and cannot be done independently Validity- Subjective therefore can be unreliable Practicability - Can be difficult to fill in watching a performance



Emotional

Methods	Benefits	Limitations
Sports Emotion Questionnaire	<ul style="list-style-type: none"> • Validity – Recognised method that has been tested to ensure data collected is valid • Practicability – Questions are easy to understand and has a simple scoring system • Practicability – Not time consuming to complete • Validity – Easy to identify areas of strength and weakness • Reliability - Gives a permanent record that allows you to look back and compare in future 	<ul style="list-style-type: none"> • Reliability - requires performer to be completely honest to give accurate results
POMS Test	<ul style="list-style-type: none"> • Validity – Recognised method that has been tested to ensure data collected is valid • Reliability – Results can be compared to norms to give an idea of levels of data • Reliability – Conducted in the same conditions worldwide 	<ul style="list-style-type: none"> • Practicability – Requires a computer to complete • Reliability - requires performer to be completely honest to give accurate results



Approaches to Develop Physical Aspects of Fitness

Approach	Description	Advantages	Disadvantages
Continuous training	Any form of exercise that ensures the heart rate is operating within your training zone for 20-30 minutes. The activity is non-stop and there are no rest periods.	<ul style="list-style-type: none"> • Can be made specific to activity • Easy to set up • Easy to overload (increase frequency/intensity/duration) • Develops CRE 	<ul style="list-style-type: none"> • Can become boring due to repetitiveness • Does very little to improve short bursts of speed, which are needed in many sports • Does not exactly replicate a game
Interval Training	Any form of exercise that allows a work/rest interval to be easily calculated. The rest period gives the heart and lungs time to recover but the heart rate should not drop out of the training zone.	<ul style="list-style-type: none"> • Rest periods allow high intensity work to be carried out with limited fatigue. • Can be adapted easily to suit participants level of fitness • Easy to overload (increase frequency/intensity/duration) • Easy to carry out and does not need specialist equipment 	<ul style="list-style-type: none"> • Can lose the rhythm of training during interval periods • Can become boring due to repetitiveness • Does not exactly replicate a game • Does not require decision making
Fartlek Training	Swedish for 'speed play'. Any form of continuous exercise with short sprint bursts followed by slower recovery periods then more continuous exercise.	<ul style="list-style-type: none"> • Develops aerobic and anaerobic fitness to help with short bursts of speed • Can be adapted easily to suit participants level of fitness • Easy to overload (increase frequency/intensity/duration) • Easy to carry out and does not need specialist equipment • Can include game specific exercises 	<ul style="list-style-type: none"> • Difficult to maintain higher periods of work when fatigued • Does not exactly replicate a game • If not suited exactly to the performer it can have little impact on performance
Agility Drills	Used to practice and refine fundamental movements to improve ability to move and change direction quickly. Usually grouped into ladder, hurdle and cone drills.	<ul style="list-style-type: none"> • Generally require little equipment and easy to set up • Can include game specific exercises 	<ul style="list-style-type: none"> • Performer requires high work-rate to allow improvement

Approaches to Develop Emotional Factor

Positive Self-talk

Positive self-talk can be used to help manage anger. To do this you must develop positive responses to negative actions. When a mistake is made it is easy to think negatively about your performance. These negative thoughts can reduce your confidence and your ability to perform at your full potential. Negative thoughts are common even in top performers. Top performers are able to deal with these thoughts using positive self-talk. This can be easily performed using the 3 R's.

The **3 R's** can help a performer respond to themselves positively after a mistake.

The 3 R's stand for: **Recognize-Regroup-Refocus**

- **Recognize** that you are dwelling on a mistake, which limits your ability to focus on the next phase of play and identify your mental error.
- **Regroup** by interrupting the chain of thought. This requires you to battle your own emotions and dispute your irrational thinking
- **Refocus** is then crucial for the next phase of play. Ask yourself what you need to focus on right now to do your best in the next play? The answer will help you refocus on the task-relevant cues for the next play.
-

Trigger words

Trigger words are words or phrases that performers use to make them feel a certain way. They can help a performer get into the optimal state before, or during, a performance.

- Words like "calm" "relax" and "easy" are often used to help a performer relax before or during a performance
- Performers may use a phrase such as "watch the ball" to remind themselves of what to focus on during performance, or they may simply use a word such as "focus" if they feel themselves losing concentration
- Phrases such as "I am a very good shooter" might be used to try and increase confidence in certain situations
- Phrases such as "go for it" and "you can do this" are commonly used by performers in order to get up for a performance.

Approach	Description	Advantages	Disadvantages
Positive Self-Talk	Talking in your own head to yourself about your performance. Recognizing mistakes, regrouping after them and refocusing on your next involvement in a performance	<ul style="list-style-type: none"> • No specialist equipment required • Can boost confidence and motivation during a performance • Can be performed very quickly • Easy to use in practice and competition 	<ul style="list-style-type: none"> • Can be difficult sometimes to stop negative thoughts taking over • Some performers may not take it seriously • May cause the performer to feel awkward • Performer must be focused for it to positively impact on emotions and overall performance
Trigger Words	Words or short phrases that can focus a performer before or during a performance to get them to their optimal state for performance.	<ul style="list-style-type: none"> • No specialist equipment required • Words or phrases used are specific to the performance • Can boost emotional state before or during a performance • Can be performed very quickly 	<ul style="list-style-type: none"> • Needs a certain level of self-belief to work effectively • Some performers may not take it seriously • May cause the performer to feel awkward



Creating a Personal Development Plan

When creating a PDP it is important to consider the following:

- Principles of training
- Different phases of training
- Different approaches to develop fitness

Principles of Training

The following principles should be considered when creating a PDP:

Frequency

Intensity

Duration

Progressive Overload

Specificity

Reversibility

Frequency refers to how often you train. In order to improve CRE a performer would typically train three or four times per week.

Intensity refers to how demanding training sessions are. This is worked out by monitoring a performer's heart rate as they train. To improve CRE, a performer should aim to keep their heart rate within the training zone (65-80% of their maximum heart rate) for the duration of a training session.

Duration means the length of each individual session. A session to improve CRE would normally last a minimum of 25 minutes.

Progressive Overload refers to increasing the difficulty of sessions as you go through a PDP. As you complete more sessions you will become fitter; therefore have to increase the demands to ensure continued progress to your fitness. This is generally done by increasing the frequency, intensity or duration of sessions.

Specificity means that the training undertaken is specific to the activity, your ability and level of fitness. This ensures the training will be most effective for the performer.

Reversibility means that if you stop exercising the effects of your training will not be maintained. If training is disrupted, by injury or other reasons, then a performer's level of fitness will generally decrease quicker than it was created. To avoid this, it is important that training programmes are progressive and continuous.

Phases of Training

The type, frequency, intensity and duration of training is dependant on the phase of training you are in for a specific activity. For example, you would avoid doing a big training session the day before a competition. To help guide training sessions training can be split into three phases:

Preparation Phase (pre-season)

The preparation phase of training starts with general fitness work and usually focuses on developing physical fitness. Specific skill drills and practices will be incorporated over time.

Competition Phase (during the season)

Training is conditioned towards competitions and matches. This means training could be less intense or shorter in duration to avoid fatigue and injury close to competitions. There is usually a brief recovery period after competition to allow the body to recover.

Transition Phase (off-season)

The transition phase occurs between the end of competition and the next preparation phase. During this time it is important that there is a definitive break from competitive activity. The aim of this phase is help maintain a good level of general fitness and can include light jogging, cycling or swimming.



Activity	Badminton
No. of weeks / sessions	
No. of sessions per week	

Physical Factor

Physical Target	To improve my
At the moment	
This will allow me to	
My final target is to	

Mental Factor

Mental Target	To improve my
At the moment	
This will allow me to	
My final target is to	

1	Aim:
	Description:
2	Aim:
	Description:
3	Aim:
	Description:
4	Aim:
	Description:
5	Aim:
	Description:
6	Aim:
	Description:

Session	Description of training completed	Feeling before, during and after training	Next steps/plan for next session
1			
2			
3			

Session	Description of training completed	Feeling before, during and after training	Next steps/plan for next session
4			
5			
6			

Methods to monitor development

Throughout your training programme it is important to monitor your progress. This allows you to:

- Make comparisons to data you have previously gathered
- Check the progress you have made in relation to your short and long-term goals
- Identify new strengths and weaknesses
- Motivate you to work hard
- Make adaptations to your programme

By doing this you ensure that your programme is relevant to you and will allow you to achieve your target.

Training Diary

A training diary allows you to take notes on your performance development, you will be able to see how you trained on a particular day, what were your results, thoughts and feelings on that days training and plan what steps you are going to take next. This can all be recorded in one area.

Retesting

Repeating the same method used to gather information should allow you to see improvements in your performance. Retesting should be completed under the same conditions as the initial data gathering. This allows the data to be compared, to show next stages for training. For example, be re-doing a Focused Observation Schedule, a performer may see which sub-routines should be focused on in order to perform the skill more effectively.

Evaluation of Performance Development Programme

After completing a PDP, it is important to identify your current level of performance in order for you identify future development needs. This allows you plan future training plans to allow continued improvement.

By comparing final data gathered after completing a PDP with initial data gathered you can see the level of improvement made throughout the programme. Again, this must be done in the same conditions as the initial data collection, to ensure the data is reliable.

When **evaluating** you need to be able to explain the effects your PDP had on your weakness as well as your whole performance. For example, you should be able to explain why conditioned games helped improve your skill more than shadow practice, or why deep breathing had a positive effect on your whole performance.

Evaluating performance allows you to...

- See if performance has improved and if the PDP has been successful
- Identify new strengths and weaknesses, which allows future development needs to be agreed
- Create a new PDP incorporating new future development needs. By using the evaluation process the PDP can be more specific and incorporate more effective methods of practice.
- Reliably compare initial and final data (if tested under the same conditions)
- Check all aspects of performance. For example, you may have improved the technique of a skill but cannot use it effectively apply it in a game. This can show another future development need

12 Minute Cooper Run

Aim: To measure aerobic capacity within a maximal indirect field test.

Aspect: Cardio Respiratory Endurance.

Equipment: A square on the astro which is 40mx20m, enough marking cones to place one every 10m of the track, stopwatch.

Procedure:

Complete a thorough warm-up and dynamic stretching.

Place cones every 10m for easy calculation of distance covered.

The participant aims to complete as many laps as possible within the 12 minute time limit whilst running.

On the completion of 12 minutes the recorded counts up the completed laps and the number of completed metres on the final lap.

Date of Re-test:

Re-test Distance:

Norms

Males	Poor	Below Average	Average	Above Average	Excellent
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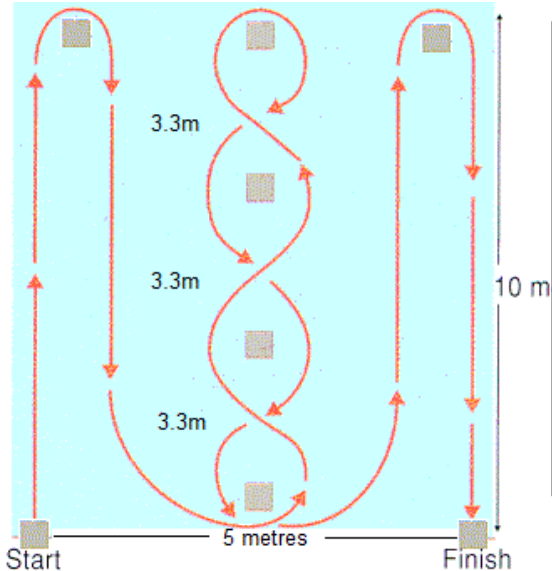
Re-test Distance in relation to norms:

Illinois Agility Run Test

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- Flat non-slip surface
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This test requires the athlete to run the line route in the diagram below as fast as possible.



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Date	Result	Comment

Re-tested Time Related Observation Schedule (Movement)

Name of Performer

Position

Name of Observer

Date

Watch the game or video action to help you analyse how fit you were when playing in a game. The time recorded is 50 minutes.

KEY: / for every occasion they move in the specified way.

TIME Minutes	WALKING	JOGGING	HALF PACE	RUNNING	SRINTING
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0-5					
6-10					
11-15					
16-20					
21-25					
Total					
2 nd half					
0-5					
6- 10					
11-15					
16-20					
21-25					
Total					

Analyse your data and compare your first- and second-half performance.

During the first half I found that I was

During the second half I found that I was

This information suggests that my level of cardio-respiratory endurance is
_____ because

Profile of Mood Status

The Profile of Mood Status (POMS) test is a psychological test which asks performers to indicate how they have been feeling in the past week based on a series of statements. The performer will select “not at all”, “a little”, “moderately”, “quite a lot” or “extremely” to indicate how they feel.

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	Not at all	A little	Moderately	Quite a bit	Extremely
Uneasy	0	1	2	3	4
Upset	0	1	2	3	4
Exhilarated	0	1	2	3	4
Irritated	0	1	2	3	4
Pleased	0	1	2	3	4
Tense	0	1	2	3	4
Sad	0	1	2	3	4
Excited	0	1	2	3	4
Furious	0	1	2	3	4
Joyful	0	1	2	3	4
Nervous	0	1	2	3	4
Unhappy	0	1	2	3	4
Enthusiastic	0	1	2	3	4
Annoyed	0	1	2	3	4
Cheerful	0	1	2	3	4
Apprehensive	0	1	2	3	4
Disappointed	0	1	2	3	4
Angry	0	1	2	3	4
Energetic	0	1	2	3	4
Happy	0	1	2	3	4
Anxious	0	1	2	3	4
Dejected	0	1	2	3	4

Scoring Instructions:

Anxiety = (uneasy + tense + nervous + apprehensive + anxious)/5 = _____

Dejection = (upset + sad + unhappy + disappointed + dejected)/5 = _____

Excitement = (exhilarated + excited + enthusiastic + energetic)/4 = _____

Anger = (irritated + furious + annoyed + angry)/4 = _____

Happiness = (pleased + joyful + cheerful + happy)/4 = _____

The response stem can be changed to refer to *current* or *previous* competition as required although the SEQ has only been currently validated for pre-competition use

