

Preparation of the body – Revision Notes(Badminton)

Preparation of the body – areas to be studied:

- List the physical, skill related and mental aspects of fitness required for badminton
- For each aspect say why they are important/ required to perform successfully
- How does each mental aspect affect your performance (situations)
- Select a strength(power) and a weakness (c.r.e)
- give the effects the weakness has on a 3 set match
- methods used to gather data within activity and out with activity (describe)
- why is it important to assess your level of fitness
- what are the three phases of training – know which one you are in.
- Describe conditioning training programme (within)
- Describe fartlek training programme (outwith)
- What do you understand about the principles of training – give specific examples
- How did you apply the principle of progression
- Why were adaptations necessary
- How did you monitor your progress
- Why did you monitor your progress
- When did you monitor
- How did you evaluate your progress
- How did training effect you overall performance

Fitness requirements for effective performance

Physical – Cardio respiratory endurance, muscular endurance, flexibility and power.

Skill related – reaction time, co-ordination and agility.

Mental – managing emotions, mental rehearsal and level of arousal.

Physical:

C.R.E –

- maintain a high standard throughout all 3 sets without becoming tired and out of breath
- able to maintain full court coverage on long and late rallies.
- able to move in plenty of time to reach shuttle and prepare for shot
- In correct position to perform each technique with efficiency
- Gives greater accuracy of shot
- time to select appropriate shot to play and where to play it in relation to opponent
- Play more attacking shots and disguise play
- Difficult for opponent to read play

Power-

- In legs to be able to jump up high when smashing shuttle
- Contact shuttle at peak and hit the shuttle down at a steeper angle towards opponent
- Difficult for opponent to return
- Power in arms to play an OHC to the back of the court
- Pushes opponent to the back of the court
- Creates space at front for attacking shot to be played into
- Forces opponent into playing a more defensive shot
- Power in smash
- Racket speed faster
- Shuttle travels faster making it difficult for opponent to return

Flexibility –

- In shoulder joint to be able to reach shuttle
- Play a wide range of shots
- Play is less predictable and makes it difficult for opponent to read play
- In hip joint for playing net shots and retrieving drops
- Need to be able to lunge forward on r/l foot to pick up shuttles low to the ground

Muscular Endurance –

- Maintain muscle control
- Able to move fluently around court

- Reach shuttle in time and perform each technique with efficiency
- Keep straight arm when contacting the shuttle & follow through in direction of shot
- Return between shot to ready position

Skill related

Reaction time –

- Respond quickly to the actions of the opponent
- Eg. Attacking shots and shots that have been disguised
- Racket up to block a smash
- Move quickly into net

Co-ordination –

- Link subroutines together for each skill
- Perform each technique with fluency and control
- Eg. Jump and hit shuttle at the same time

Agility –

- Move round the court and be able to change direction quickly
- Move into net and play net shots
- Move into net to retrieve drop shots
- Respond quickly in response to attacking shots played close to net or over head.

Mental –

Level of arousal - players must have a certain level of motivation and not allow poor technique to occur as a result of distraction or feeling anxious throughout a game

- Anxious or stressed
- Caused by expectations on you to perform well are high
- Level of arousal is high
- nerves
- This limits ability to perform

Mental Rehearsal – players must be able to visualise pre shot routines of how they would want to respond to a situation and the outcome of it

- Running through in your mind prior to performance what you are going to do.
- Visualise situations in your head
- How to perform the technique
- Where shots played should go on the court

- prior to the start of the game

Manage emotions – on close rallies players must stay focussed and positive. If a player is down 0-5 in a game they must concentrate on improving their performance through the use of positive self talk. Have confidence in own ability to come back and win.

- Linked to confidence and concentration
- Being able to control your feelings in demanding situations
- React positively in situations where you are losing
- Remain focused when winning

Methods of gathering data and their appropriateness

M.A.S:

- table that lists skills in a game of badminton along top and the effectiveness down the left hand side
- knowledgeable observer watched me play 3 sets of 21 minutes
- eg. VE – wins the point outright, INEFF - one that went out the court or allowed my opponent to play a winning attacking shot.
- tally mark in the appropriate box each time I played a shot.
- shots in set 1 were marked with a 1 , 2 for set 2 and 3 for set 3

APPROPRIATE:

- showed current level of C.R.E : see if I could sustain a high level of fitness/maintain an effective technique throughout the three sets.
- carried out by a knowledgeable observer and completed in a full game situation
- provides a permanent record of statistics to compare to at a later date
- length of games were appropriate as I was analysing C.R.E and this was realistic to a competitive game situation.

You could also discuss the use of a video - appropriate and reliable way to help fill out M.A.S as it allowed you to view your performance and ensure you don't miss anything.

Out with activity

Leger/bleep/ 20m progressive shuttle test

- Standardised test
- Sounds a bleep and a number is called out
- Bleeps get closer together as the numbers increase
- Two markers spaced 20 metres apart
- Between each bleep run between the two markers
- Make it to line before next bleep
- If line is missed twice in a row - out.

Appropriate

- it is a standardised test for C.R.E – test is valid.
- National norms available to give reliable and accurate result on my level of C.R.E
- Compare and rank myself in relation to peers of the same age and sex.
- Able to categorise myself as below average, average or excellent
- Keep the data and use at a later date to see if improvement has been made
- Develop an appropriate development programme suited to own level of fitness

Internal/External Feedback

- Played 3 sets of 21
- Recorded feelings in a diary after each set
- Teacher provides external feedback on court movement, technique and accuracy
- Able to make comment on physical appearance

Appropriate

- Teacher has sound knowledge of the game of badminton
- Knowledge of the physical aspects and the effect they have on performance
- Can give feedback at key points within game
- Internal is reliable and instant

The effects a lack of CRE will have on performance.

- Into set 3 I could feel myself becoming very tired and out of breath and i was making more unforced errors
- Unable to sustain court coverage
- Not able to move into the correct position in time to prepare for shots
- Negative effect on my technique so my accuracy of shots played deteriorated
- Mentally fatigued meant my ability to make appropriate shot selection and decisions deteriorated
- My attacking shots were ineffective and put my opponent under little pressure
- Defensive shots - return shuttle instead of looking for space .

Why is it important to assess your fitness level

- Gather information on your level of fitness for the activity that you participate in order to identify your strengths and weaknesses
- Provides objective, accurate and reliable information in relation to the specific performance demands of the activity

- Provides a clear focus for planning a programme to improve performance related fitness
- Provides a starting point
- Data can be used at a later date for the process of monitoring and recording.

Methods of training to improve C.R.E

Conditioning – this involves training within the activity. During season.

The advantage/appropriateness of conditioning training are:

- Involves working on skill related practices, this means that as well as improving your fitness level you will also improve the skills required for the game.
- Will be working on the specific muscles required for each skill
- More enjoyable to train as it is game related – this means lots of variety can be added and therefore boredom during training is reduced
- Progressive overload is easily applied – do more reps, sets, work for longer , rest less.

See conditioning training programme sheet

Training outwith the activity

Fartlek

Fartlek, a Swedish term that means "speed play," is a form of interval or speed training that can be effective in improving your speed and endurance.

What does Fartlek training involve:

1. Fartlek running involves varying your pace throughout your run, alternating between fast segments and slow jogs.
Work-rest intervals can be based on how the body feels.
2. With fartlek training, you can experiment with pace and endurance, and to experience changes of pace.
3. Many runners, especially beginners, enjoy fartlek training because it involves speed work. It is more flexible
4. Another benefit of fartlek training is that it doesn't have to be done on a track and can be done on all types of terrains -- roads, trails, or even [hills](#).

What are the benefits of Fartlek

- Develops aerobic fitness as training is continuous- essential in badminton for the player that plays the “long game” i.e lots of high clears and drops shots (these rallies tend to be longer requiring good CRE).
- Develops anaerobic fitness as training involves short bursts. Essential for players who play a high intensity attacking game involving lots of smashes/jumps/tight net shots. The aim is to kill the rally early on through using your smash.
- Can be tailored to suit the type of game that you Play.
- It is possible to incorporate different changes in direction at varied pace- this helps address skill conditioning(agility) which badminton requires.
- It is off-court training and therefore, not affected by your skill-level.
- It is very easy to progressively overload in relation to Frequency, Intensity, Duration.

See folder for diagram of Fartlek and how you would progressively overload

Principles of training

Specific

- Identified weakness within selected activity
- Specific to my level of performance/ fitness level
- Season in which I am training
- Pre season – conditioning (within), post season – fartlek (outwith)

Overload

- Work load/ demand placed upon the body
- Must do this for an improvement to occur.
- Example –
- Start of TP – 70% OF mhr

Rest

- Avoid injury and fatigue
- Work long enough to allow improvement to occur
- Not too long you become tired

Adapt

- Change my programme if I was finding it too difficult and therefore couldn't complete training sessions
- As I improved I had to make the programme gradually more demanding to make further improvements.

Progression

- Making the TP more demanding as my fitness level improves
- Example – in weeks 3&4
- Increased % mhr to 75
- Achieved this by - work rest ratio

- Number of sets

Reversibility

- an interruption due to injury or not progressively overloading will cause this to occur
- Avoided by continual monitoring and adapting of the programme when necessary.

Why use principles of training

- Progressive overload

 1. Avoid injury
 2. Set goals
 3. Motivation

Monitoring and Evaluating

How do we monitor

- Heart rate monitor – compare heart rate reading in games and sessions to see if it has lowered and ensure I am always within training zone
- Internal feedback & Training diary – record my feelings and compare to see if I was feeling better in later sections of the game compared to before with regards to movement, shots played.
- Interim re tests – complete m.a.s and bleep test so that results can be compared and see if performance and c.r.e has improved (compare statistics)

When do we monitor?

- Weeks 2,4, and 6
- Keep same test conditions
- Eg, opponent, length of game and knowledgeable observer.
- This allows a valid comparison to be made

Why do we monitor?

Review my performance :

- see if my level of C.R.E has improved
- it will also allow me to see if my training programme has been effective.

Adapting :

- to meet my needs,
- Struggling to meet goals so make training programme easier
- Fitness level improves so have to increase the workload to keep it challenging

Motivation :

- continual review of targets,
- meeting targets will allow you to experience success
- this will help you remain motivated and keep working hard.

Progressive overload:

- know when to increase workload,
- avoid reversibility and
- ensure I am working within training zone.

Effects training will have on performance

- Will not be as tired and out of breath in long and late rallies
- Play consistently to a high standard throughout all 3 sets
- Shot effectiveness in set 3 is improved
- Able to maintain court coverage
- Wider range of shots
- Better accuracy of shots
- Reaching shot in plenty of time so technique is more efficient
- Better shot selection and disguise

