



Badminton Skills and Drills

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Preface

- ▶ Battledore and shuttlecock (paddles and shuttle)
- ▶ The International Badminton Federation (BWF) established 1934
- ▶ Due to competition, different training method and skills have been evolved and developed
- ▶ Thomas cup, Uber cup, Sudirman cup, BWF world championships, Olympics, Asian games
 - ▶ Singles, doubles, and mixed doubles



Introduction

- ▶ **Strength and Weakness of an individual skill level**
 - ▶ Sport specific strength and conditioning
 - ▶ Aerobic Capability
 - ▶ Power
 - ▶ Speed
 - ▶ Endurance



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- ▶ A badminton match lasts approximately 28.0 ± 5.2 minutes.
 - ▶ 6.4 secs. between each rally
 - ▶ 12 hits between each point and 12.9 sec. between each resting period 12.9 sec.
 - ▶ Total match consists 100 rally/hits

(Cabello & Manrique, 2003)



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- ▶ Average heart rate: 173-180 beats/min
 - ▶ HR Max 190.5-200 beats/min
 - ▶ 30-40% anaerobic, 60-70% aerobic
 - ▶ In a singles tournament, the amount of time between service and the end of a rally is between 4.6 to 7.7 sec.
 - ▶ Level of intensity is doubled during normal game play (2:1).

(Lei et al., 1993)



Scoring System in Badminton

- ▶ May 6th 2006, the new 21 point system has been established.
- ▶ Influence: the time of matches shortens, rhythm quickens.
- ▶ Tendency of attack after service or at serve in a back court.
- ▶ Tendency of a smash after service, drive before volley (Guang, Lu, & Jiang, 2008).
- ▶ Due to the 21 point system, technical, tactical, physical changes have been made.
- ▶ Psychological pressure resistance.
- ▶ High Intensity duration.

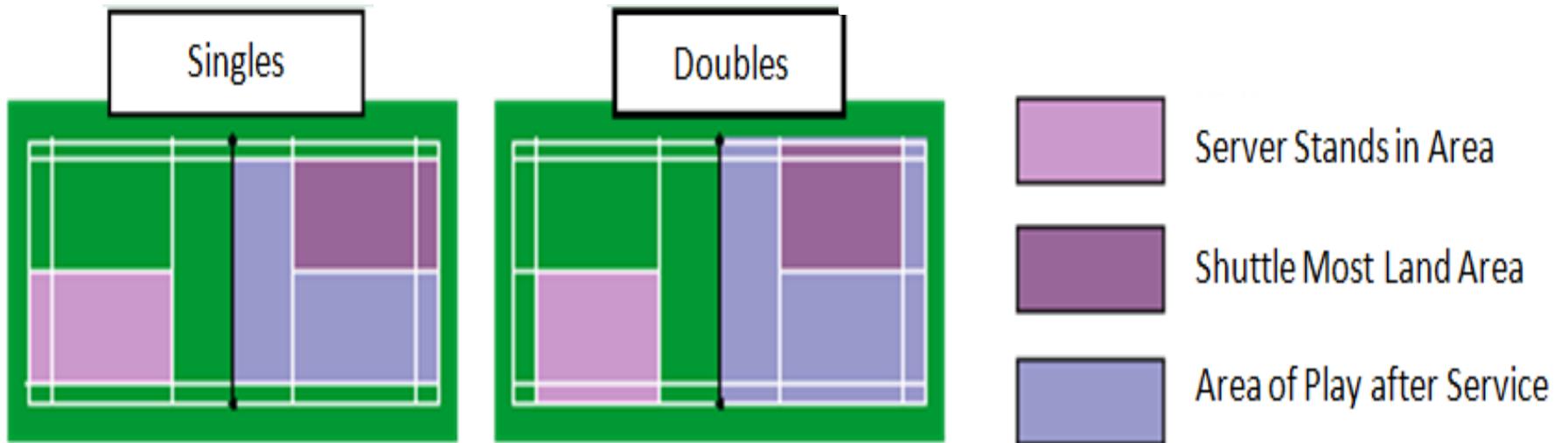


Scoring System in Badminton

- ▶ **15 point system**
 - ▶ Relax or re-adjust between each points if you missed a point.
- ▶ **21 point system**
 - ▶ No errors can be made. Even if your opponent has a lower rank, you may lose the match if you are not mentally and physically strong enough.
 - ▶ Catastrophic Theory



Badminton Court System



Length and Width: 44 x 20 ft, 44x 16 ft



Forehand Grips



1. Finger space between grip
2. Leaving three fingers on grip
3. Rock grip to the palm during point of contact
4. Used for over head, underhand clean, and long service



Backhand Grips



Method 1



Method 2

Method 1 Thumb move to the side of the grip

Method 2 Thumb rock between the side and top bevel



Backhand Grips



Method 3



Method 4

Method 3 Thumb move to the side of the grip, drive and short service

Method 4 Dead grip holding the grip tight when defending a smash

Footwork

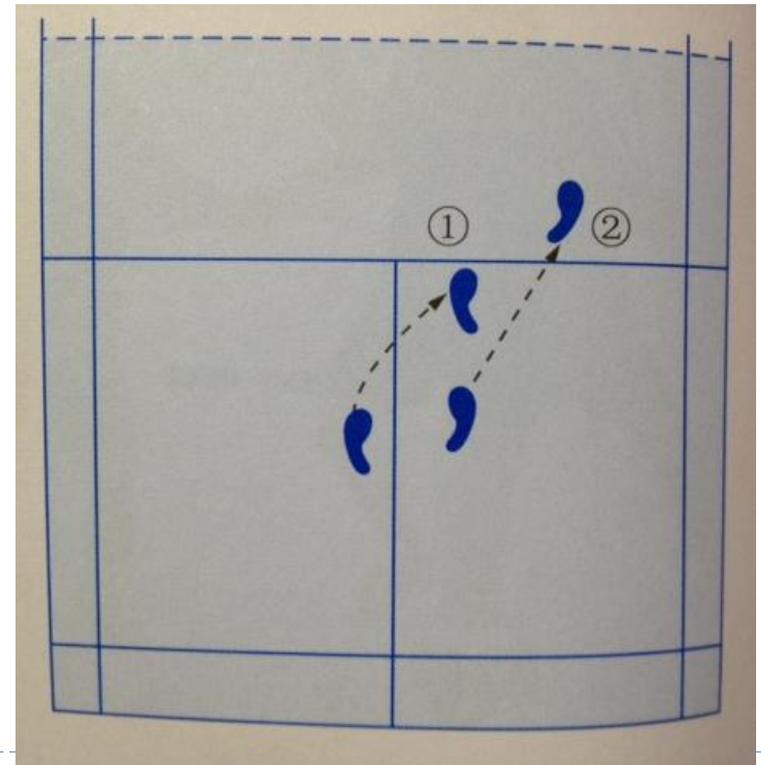
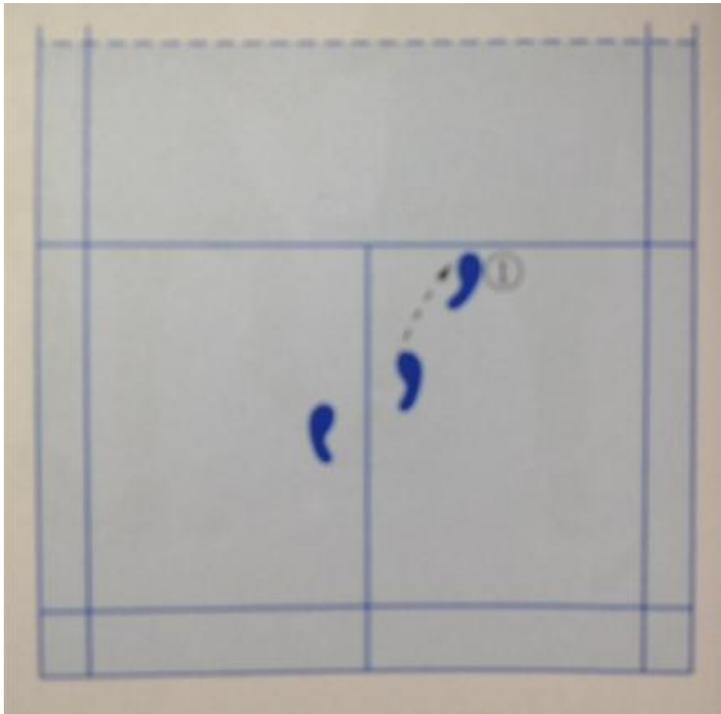
- ▶ **Fundamental Technique**
 - ▶ Must learn before handling the racket
- ▶ **Step and Touch**
 - ▶ Four way, Eight way
- ▶ **Lunge Net Play**
 - ▶ Used when shots are close to center and forehand short shots (Push off from the back foot, front foot leaps forward).
- ▶ **Forehand Cross Step Net Play**
 - ▶ Used when shots are relatively further away from the center



Forehand Footwork

Front Court Coverage

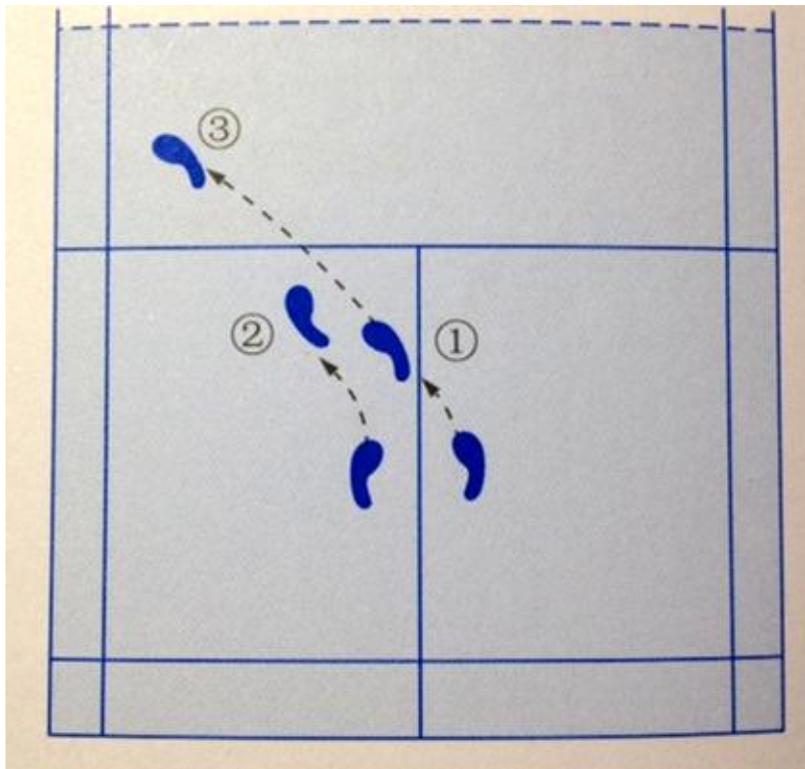
- Front Lunge Net Play
- Cross Step Net Play



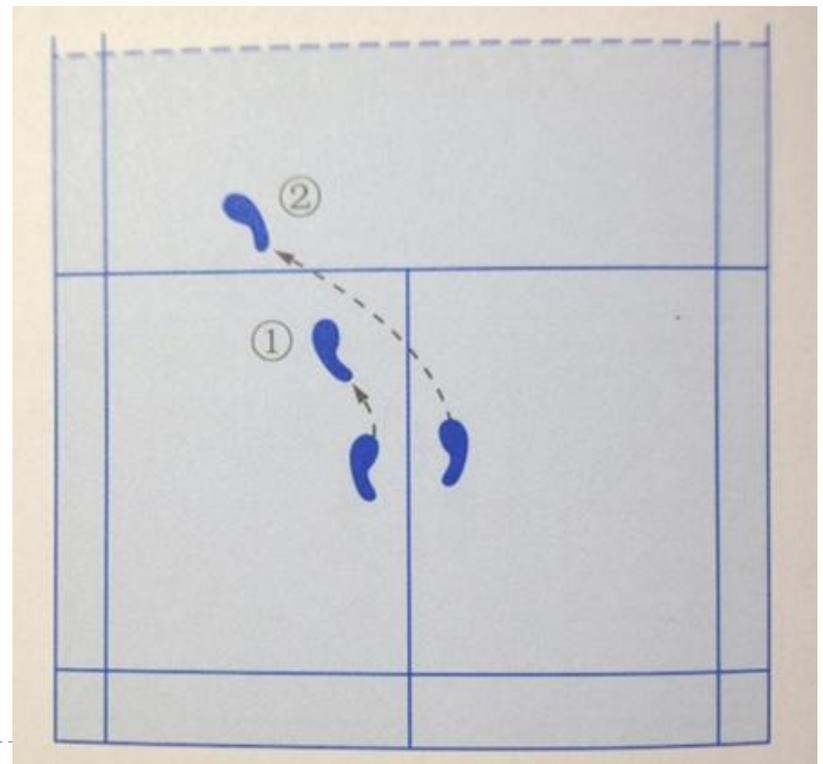
Backhand Footwork

Front Court Coverage

- ▶ Three Step Backhand Net Play



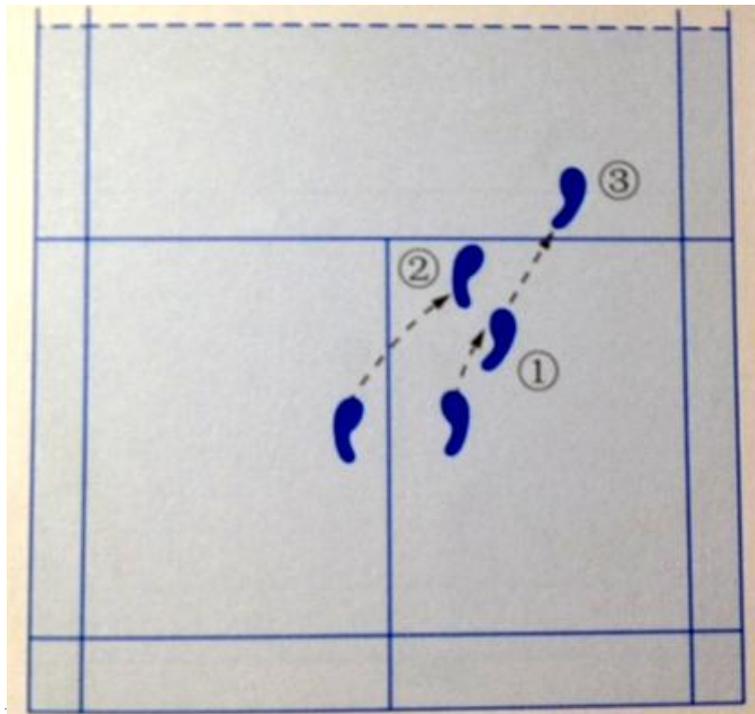
- ▶ Cross Step Backhand Net play



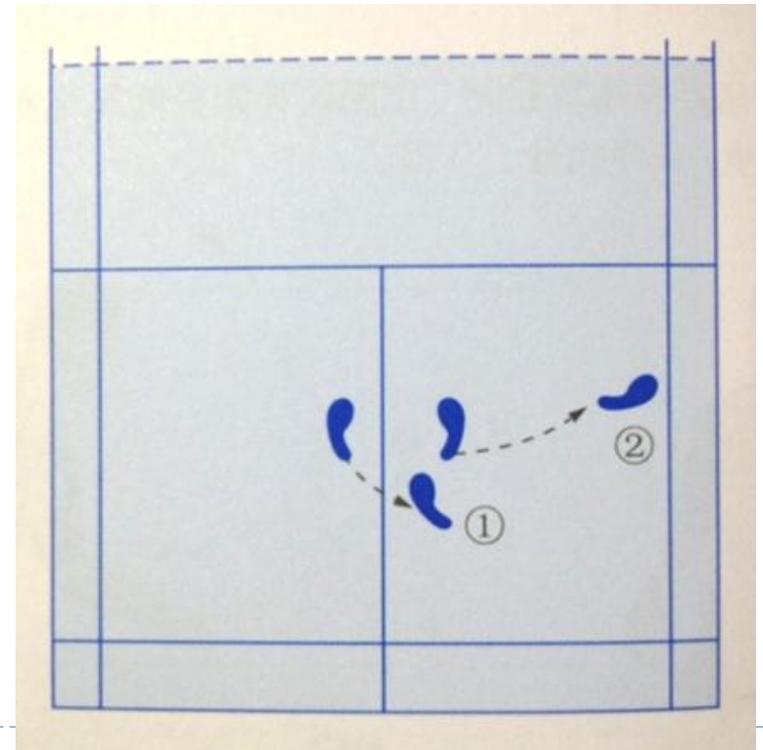
Forehand Footwork

Front-Mid Court Coverage

- ▶ Three Step Forehand Net Play



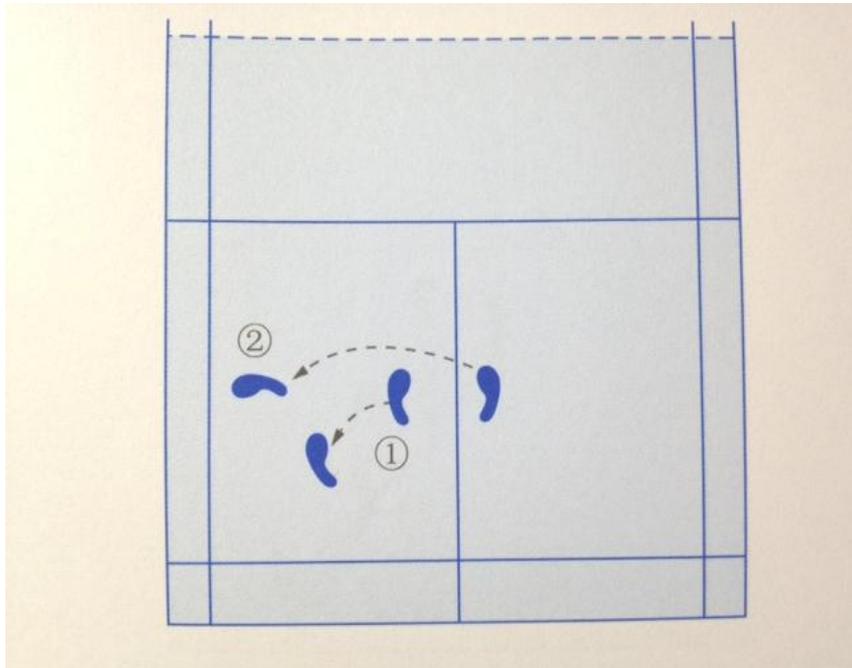
- Two Step Forehand Recovery



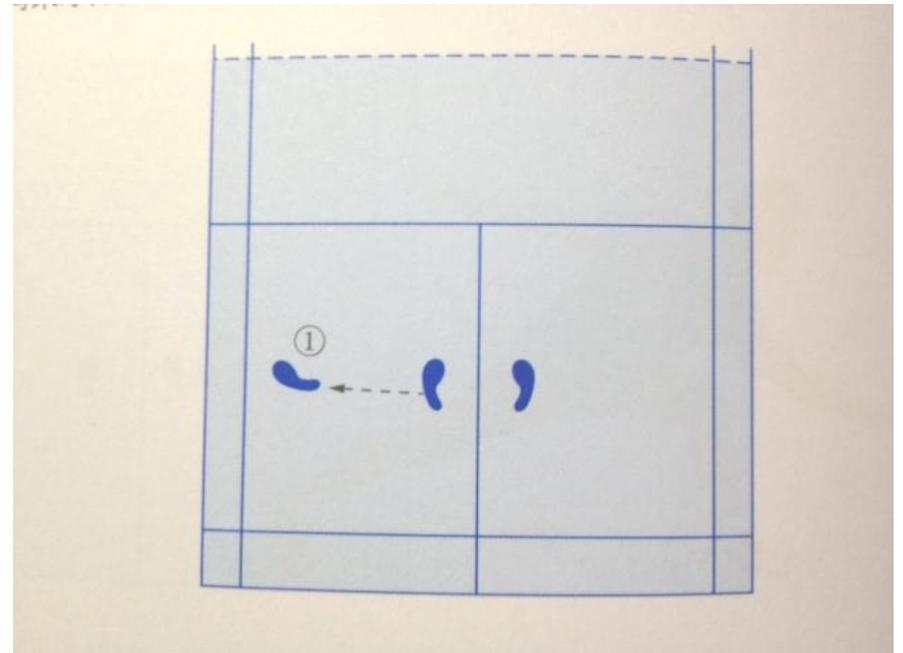
Backhand Footwork

Mid Court Coverage

- ▶ Two Step Backhand Recovery



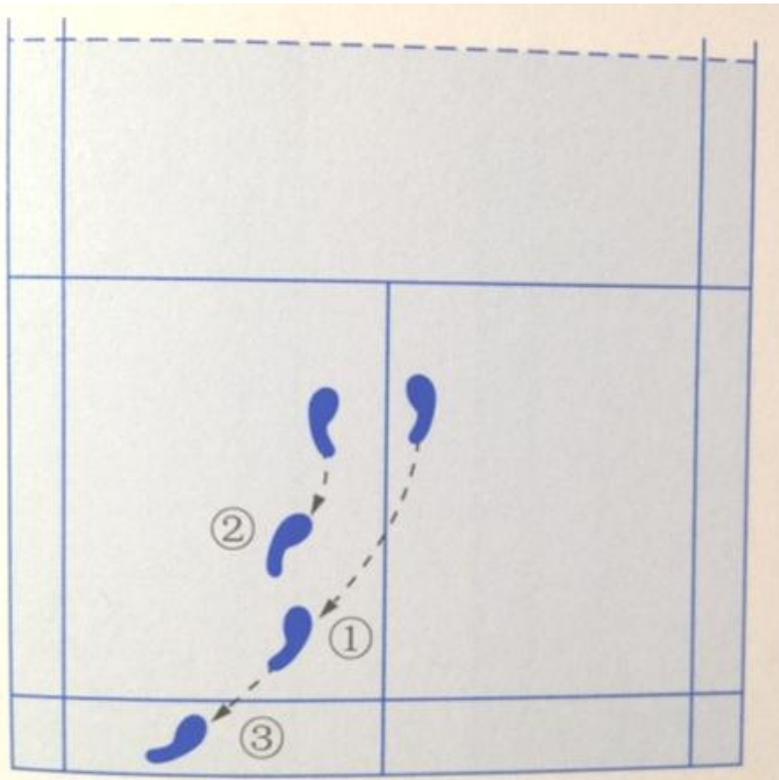
- ▶ One Step Backhand Recovery



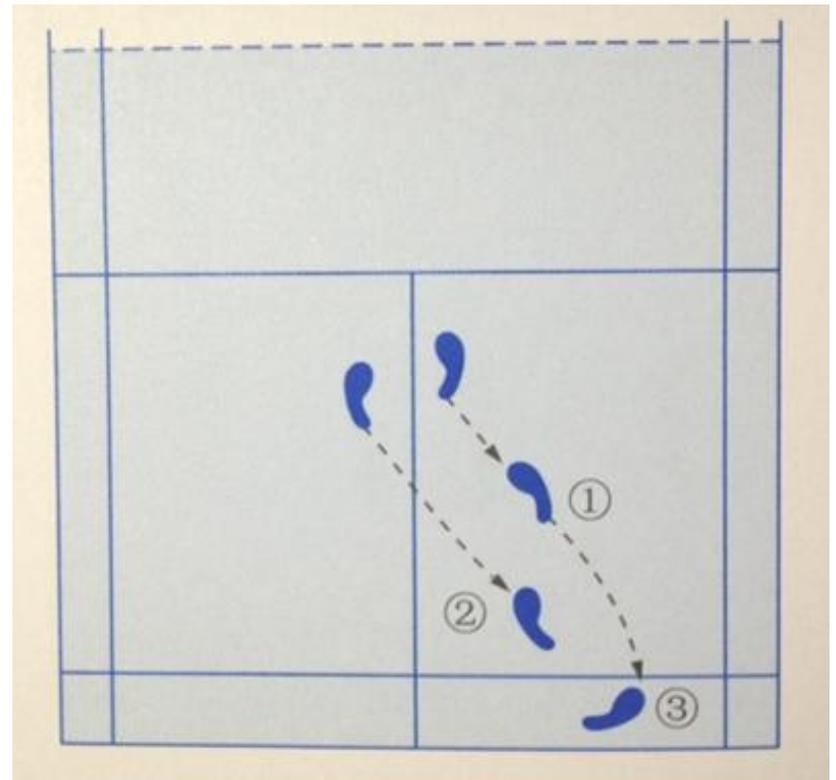
Backhand Footwork

Back Court Coverage

- ▶ Overhead There Step Backhand



- ▶ There Step Backhand



Shots Category

- ▶ **Clear Shots**

- ▶ FH and BH Overhead Clear, Around the head clear, Underhand clear shot.

- ▶ **FH and BH Drives**

- ▶ **FH and BH Smash**

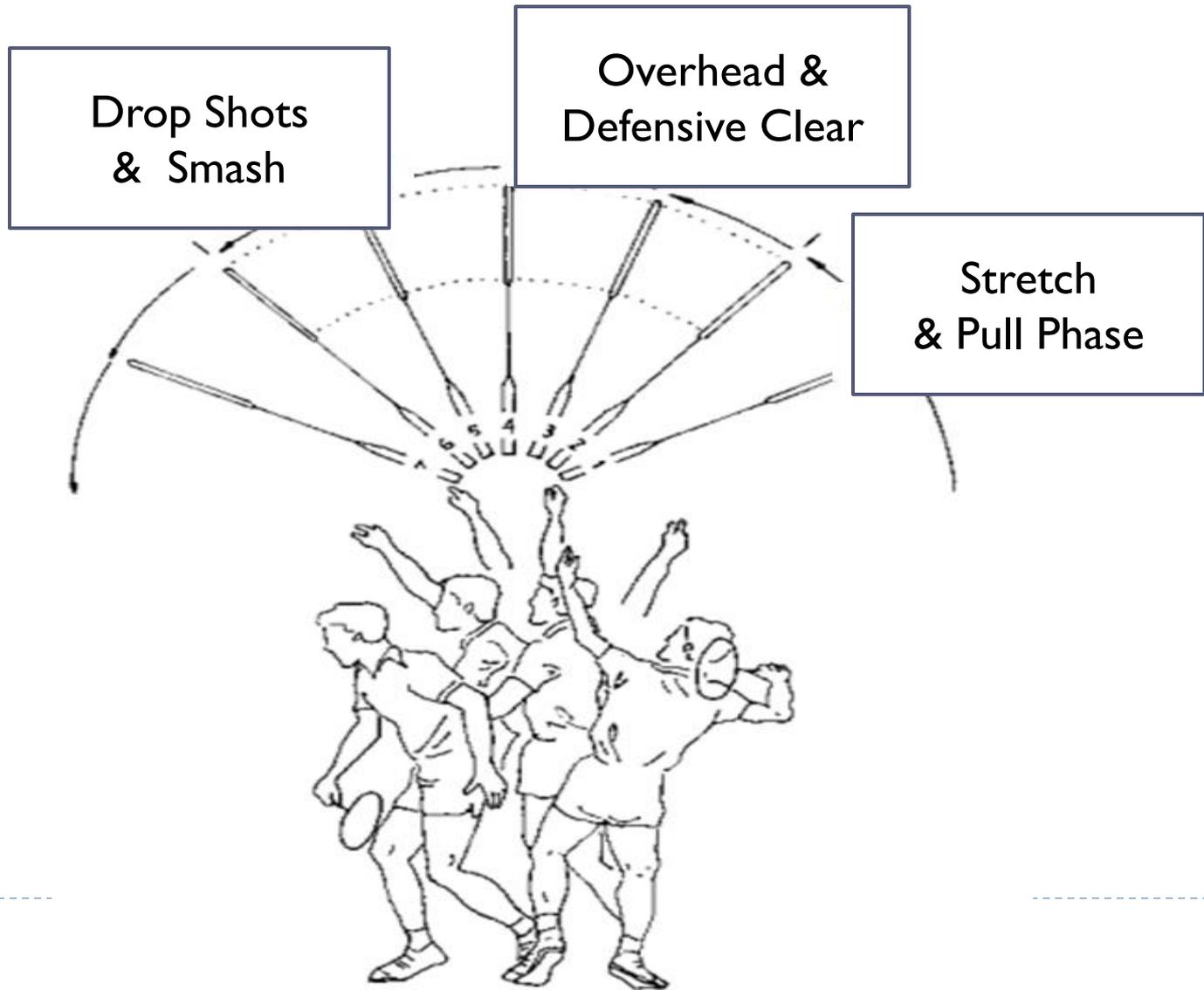
- ▶ **Drop Shot**

- ▶ **Net play**

- ▶ Net push
- ▶ Net kill
- ▶ Net lift (Net clear)

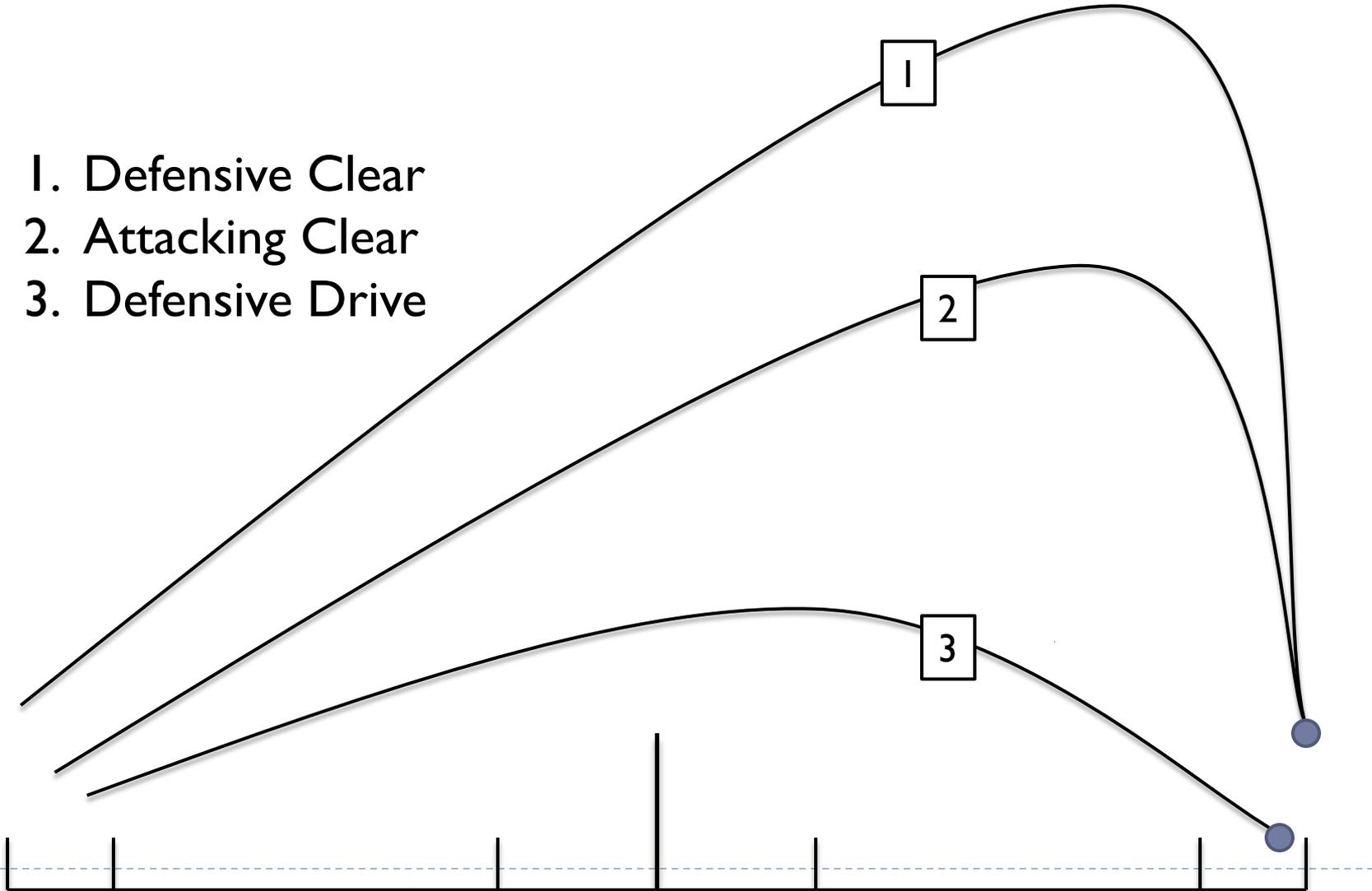


Overhead Shot Selection



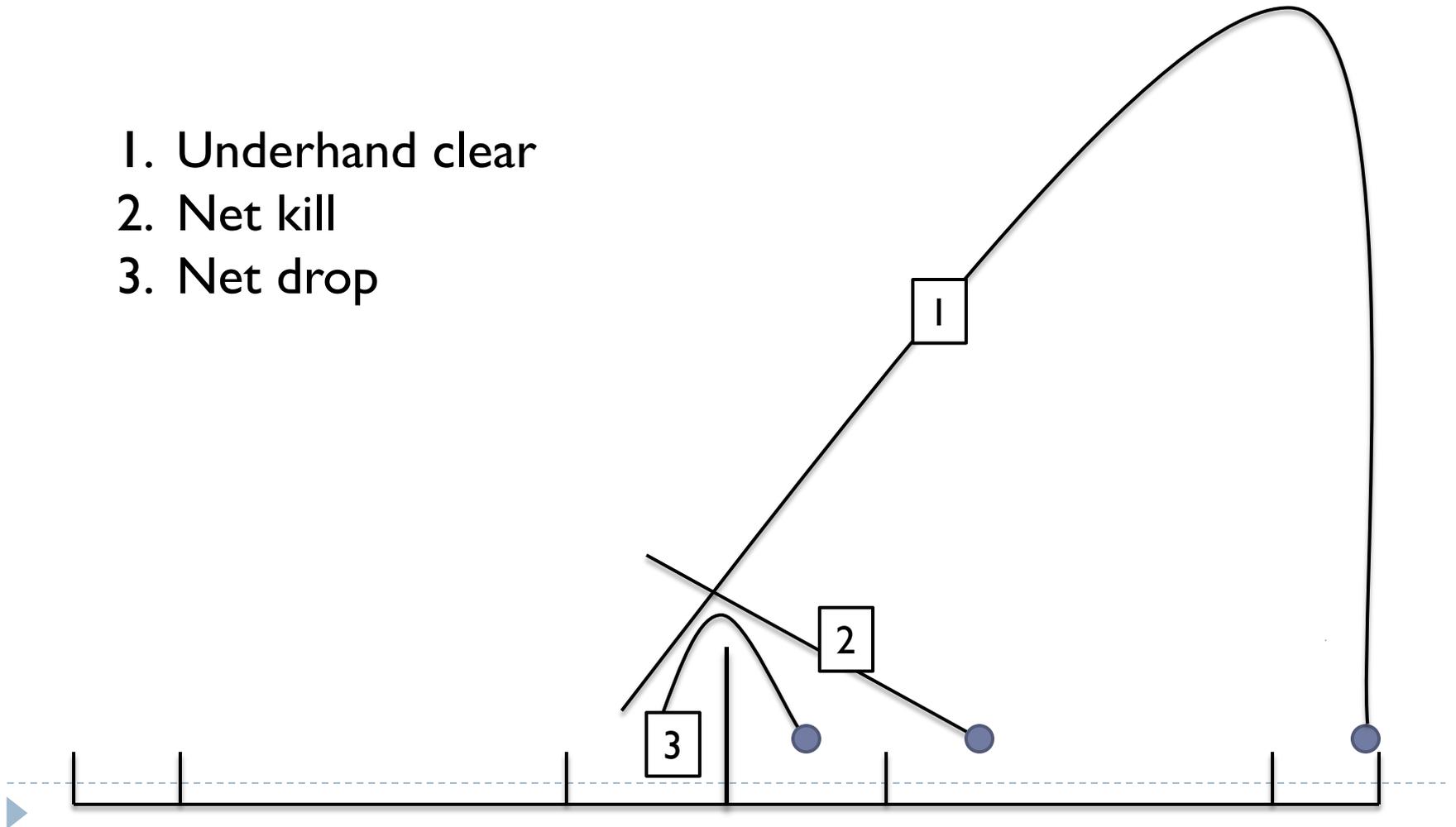
Shot Selection: Overhead Clear Shots

1. Defensive Clear
2. Attacking Clear
3. Defensive Drive



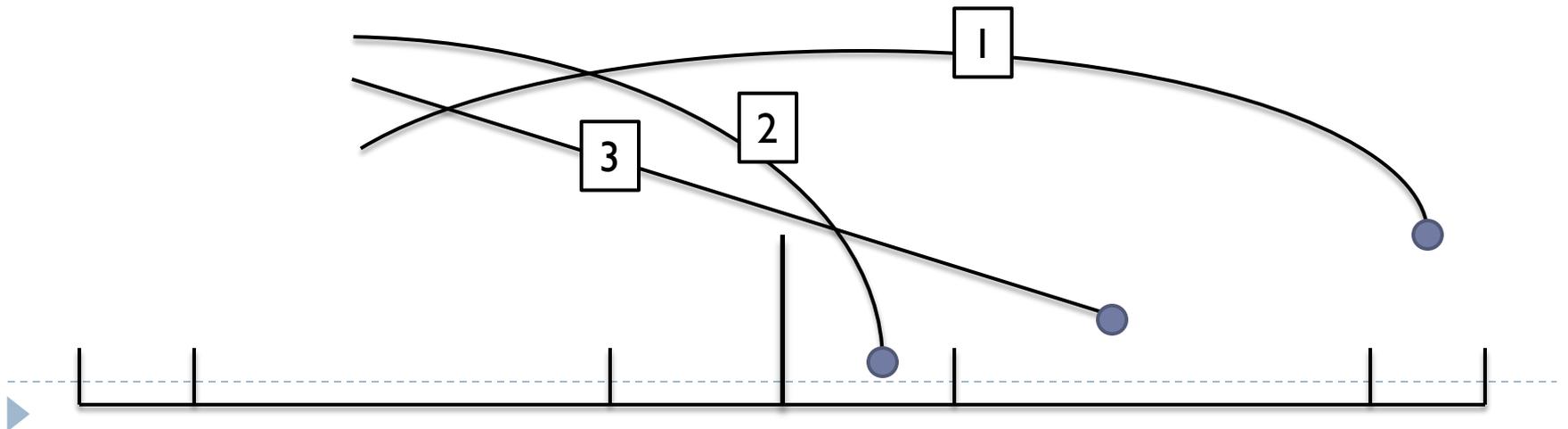
Shot Selection: Net Clear

1. Underhand clear
2. Net kill
3. Net drop



Shot Selection: Offensive Attacks

1. Offensive Drive
2. Drop
3. Smash



Service

- ▶ *Short Service (low, drive, and high service)*
 - ▶ Also referred to as the backhand serve. Backhand service was once mainly used in doubles. High level singles badminton players would also use the backhand service during game play.
- ▶ *High Service*
 - ▶ Use of the badminton serve during singles play to move your opponent as far back in court as possible, thus opening up his court.
 - ▶ If used during doubles. Opponents with strong attacking abilities will work this serve to your disadvantage.

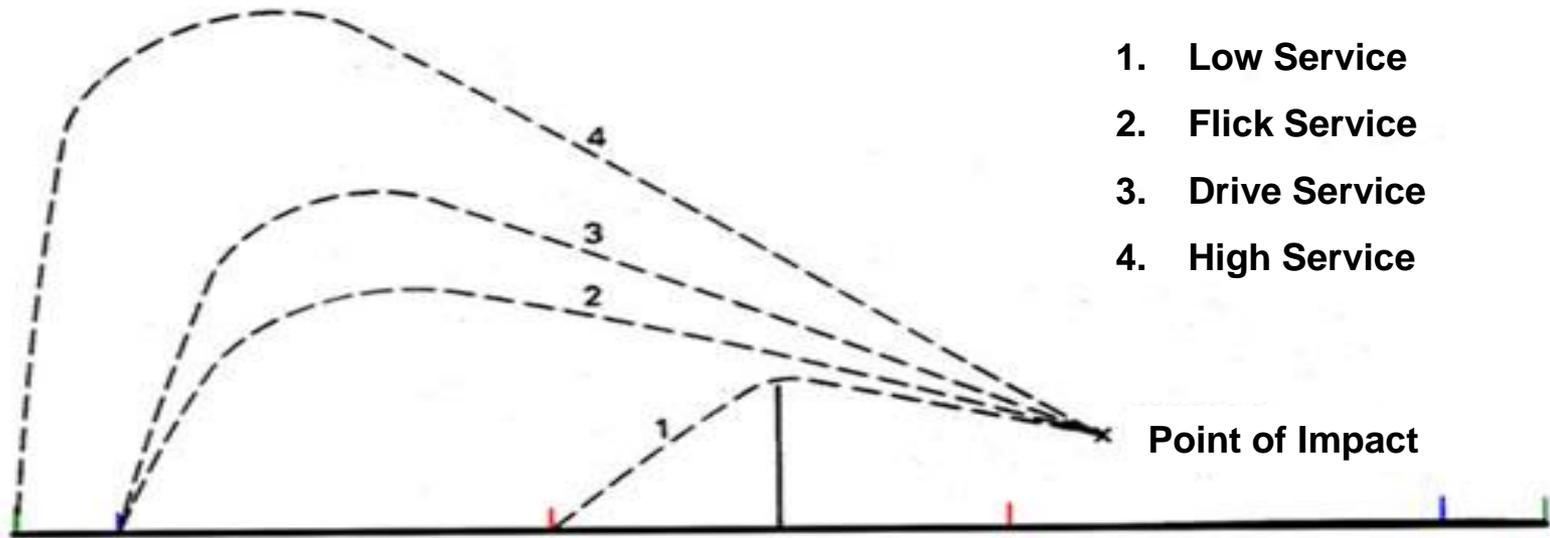


Service Patterns for National League Athletes

- ▶ 85% start off the game with short service
- ▶ 35% Backcourt drive service
- ▶ 45% Backcourt high service

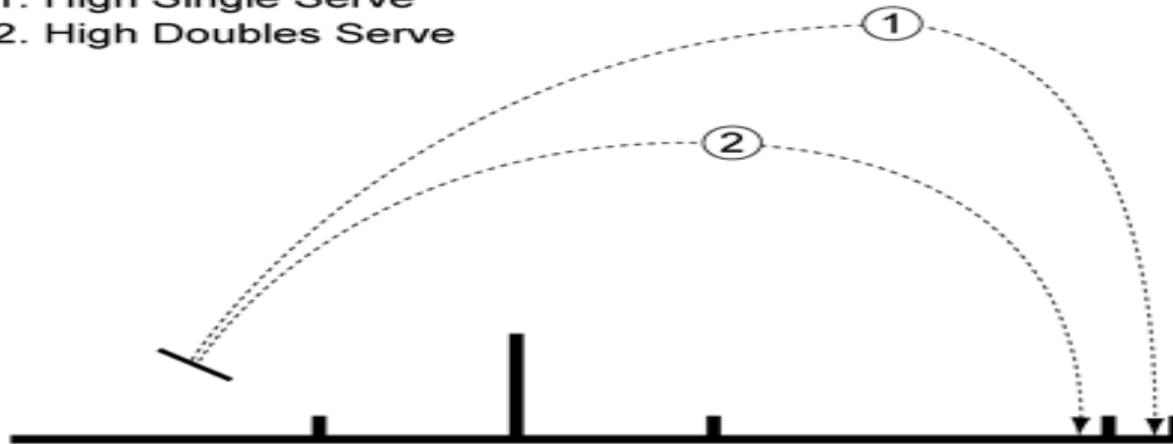


Service Trajectories



1. Low Service
2. Flick Service
3. Drive Service
4. High Service

1. High Single Serve
2. High Doubles Serve



Serve Trajectories

Badminton Drills

Based on the conditioning of an individual and develop sport specific drills to improve skill related fitness

Stability and Conditioning Drill

- ▶ **Shuttle pumping drill**
 - ▶ FH and BH Bumping the shuttle in place
 - ▶ Bumping the shuttle while walking
 - ▶ Pump up once and stabilize in your racket
- ▶ **Scooping the shuttle**
 - ▶ Lay the shuttle with heads tilted upwards
 - ▶ Lay the shuttle down by the side
- ▶ **Overhead shuttle throw**
 - ▶ Have a group of two throw shuttle behind the singles side line
- ▶ **Throwing and catching**
 - ▶ While partner throws the shuttle, catch it with racket face facing the shuttles direction then lay flat
 - ▶ Alternate by hitting the shuttle



Stroke Drills: Overhead Clear

▶ Preparation Phase

- ▶ Front foot pivot inward, heel facing side
- ▶ Torso turn to the side
- ▶ Both hands raising up
- ▶ Eyes on the shuttle

▶ Contact Phase

- ▶ Elbow rotates
- ▶ Arm close to head



Stroke Drills: Overhead Drop

▶ Drop Shot

- ▶ Same technique as overhead clear
- ▶ Instead of using elbow, focus on wrist pushing/slicing/hitting the tip of the shuttle

▶ Shot types (Front, Diagonal)

- ▶ Slicing
- ▶ Hitting
- ▶ Pushing

▶ Hitting Sequence

- ▶ Rotate body, slicing the shuttle without using excess force of elbow, focus only on wrist follow through with back leg



Overhead Clear Drill

- ▶ **Overhead Clear**
 - ▶ Hitting the shuttle back and forth
- ▶ **Overhead Drive**
 - ▶ Hitting the shuttle back and forth
- ▶ **Overhead Smash and Return**
 - ▶ Practice recovery and defense
- ▶ **Overhead Drop and Return**
 - ▶ Overhead drop near the net and clearing the shuttle for a return



Net Play Drill

- ▶ **Net Play: redirect shots**
 - ▶ Net drop in place
 - ▶ Diagonal Net Hook
 - ▶ Net Clear
 - ▶ Net Push/Kill : toward body or the court



Advanced Skill Practice

- ▶ **Half Court Badminton**

- ▶ Accuracy and half court control

- ▶ **Front and Backcourt Drill**

- ▶ Trainer drop shots the shuttle towards front court and clears the shuttle by sending to the backcourt
- ▶ Athlete has to hit the shuttle back to the trainer

- ▶ **Modification**

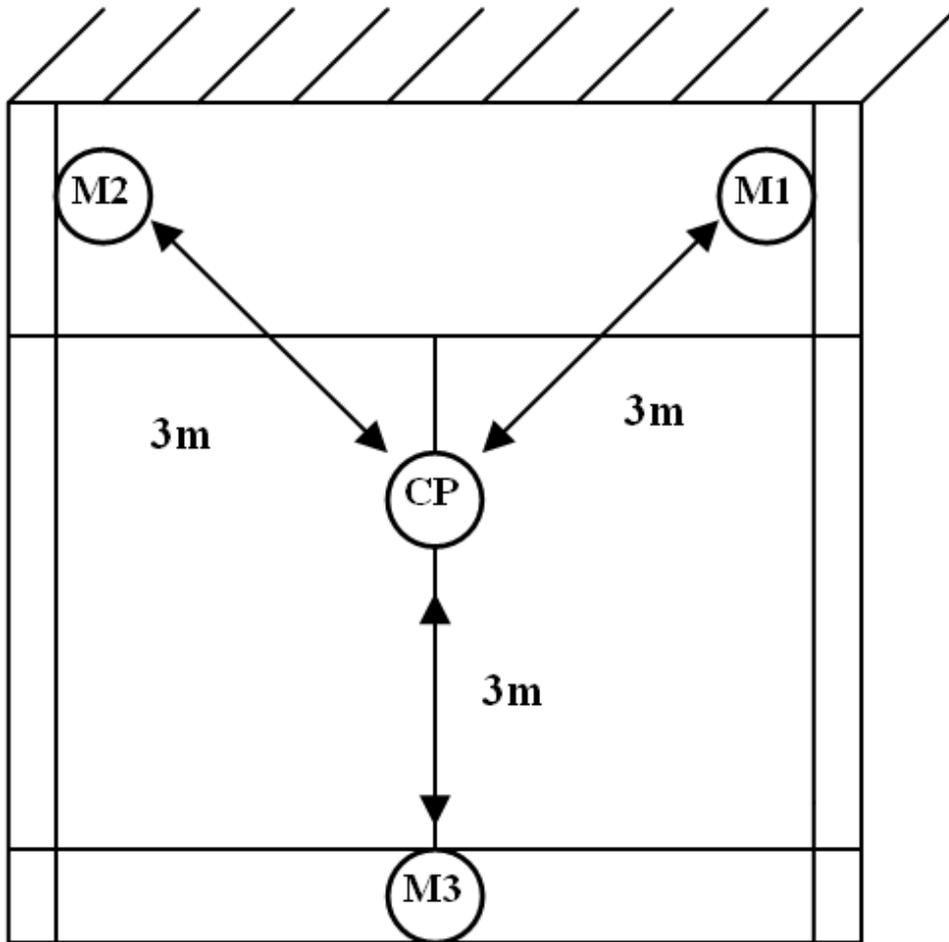
- ▶ Hit back to the trainer as he/she moves
- ▶ Aim for four different angles as the trainer maintain dropping the shuttle front and back the court





Field Tests

Net



Movements:

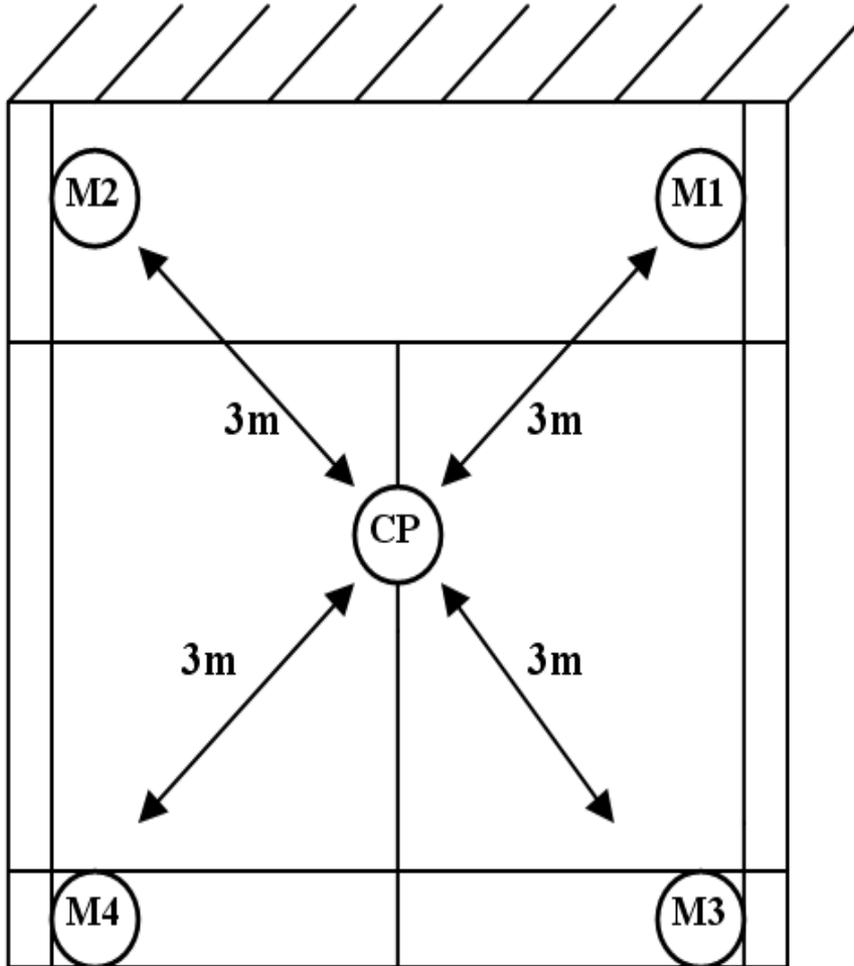
CP → M1 → CP → M2
→ CP → M3 → CP

Racket:

M1 and M2 touch the net
M3 Jump Smash

3 Point Anaerobic Field Test (Wonisch, 2003)

Net



Movements:

CP → M1 → CP → M2 → CP → M3 → CP → M4 → CP

Racket:

M1 and M2 Touch the Net
M3 and M4 Smash Jump

4 point Anaerobic Field Test (Ji, 2002)

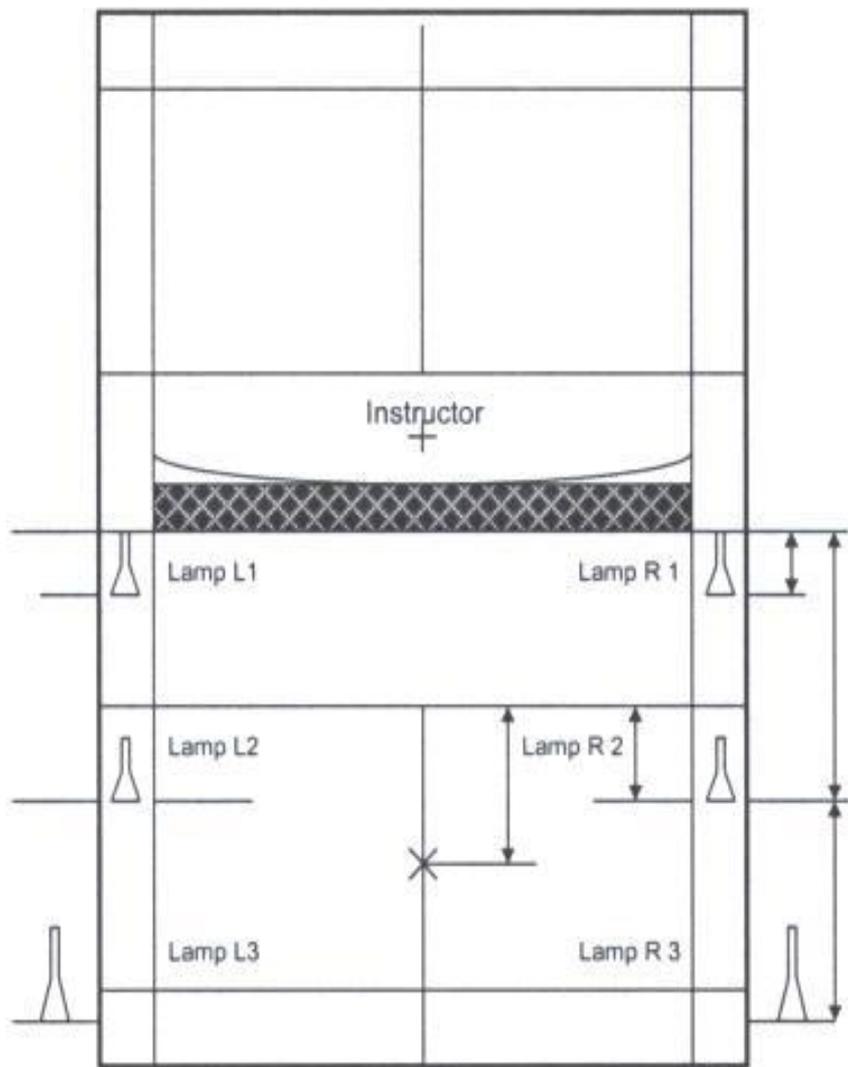


Figure 4. Badminton field test

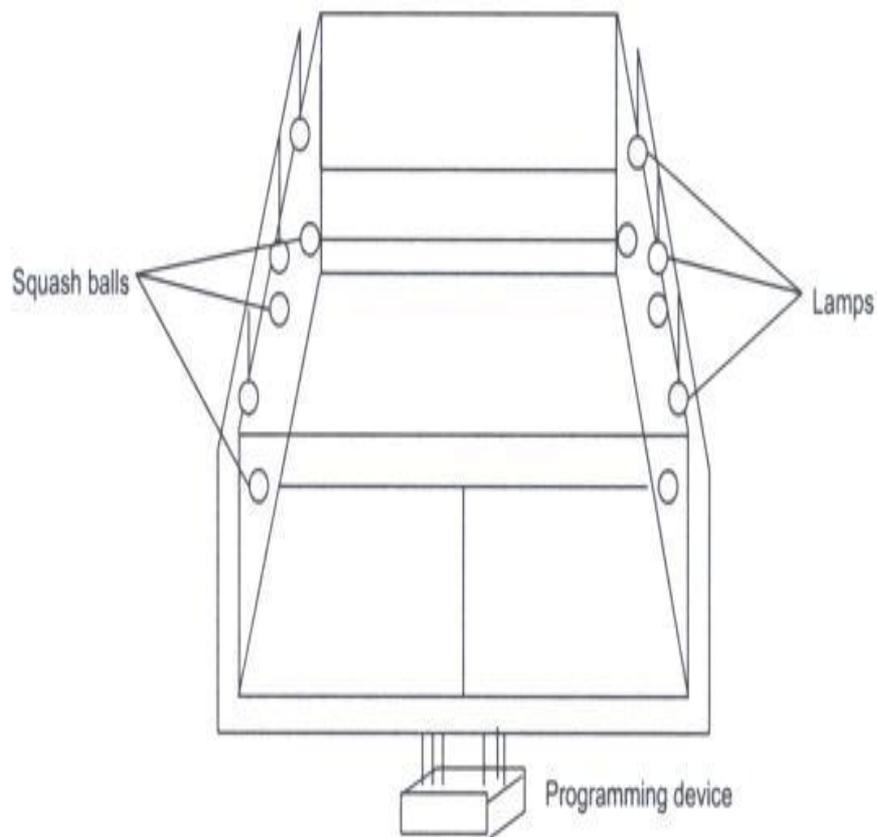
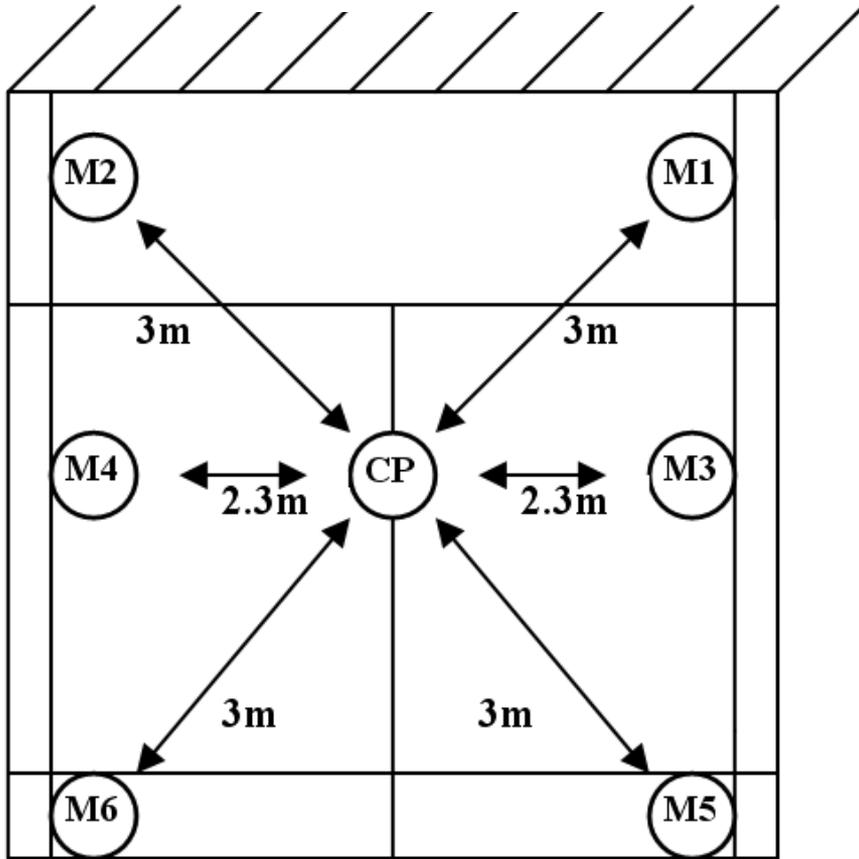


Figure 1. Squash field test

(Chin et al., 1995)

Net



Movements:

CP → M1 → CP → M2 → CP
→ M3 → CP → M4 → CP →
M5 → CP → M6 → CP

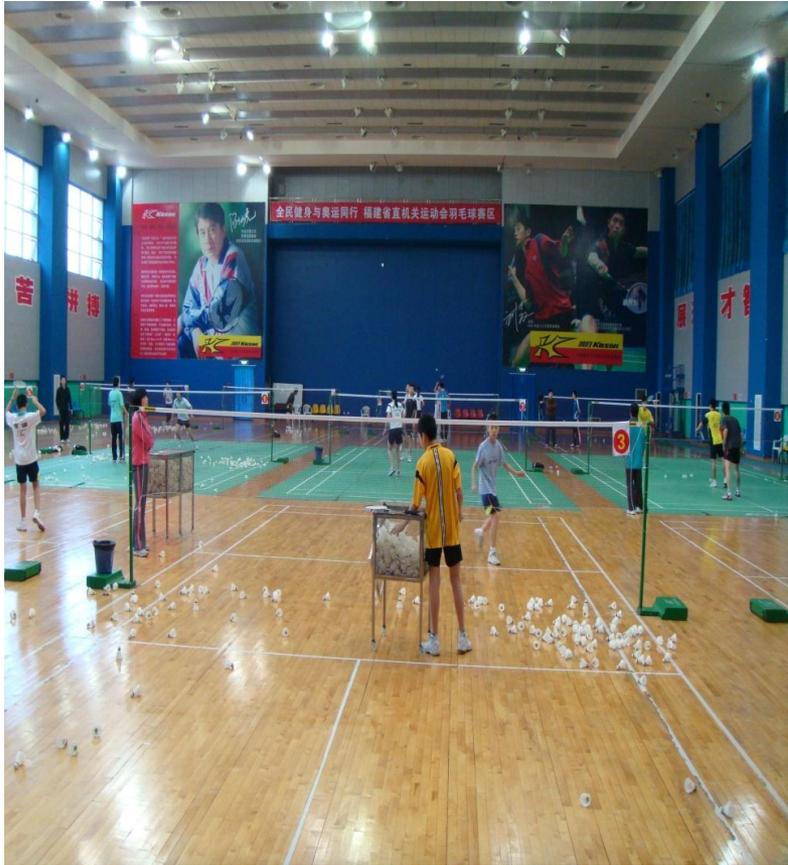
M1 and M2 net lift

M3 and M4 underhand clear

M6 and M5 Overhead jump smash



Training Camp Focus on Basic Skills



Conditioning and Skill Specificity Training



China's Lu Lan takes sweet revenge over compatriot Zhu Lin who beat her in the Indonesian Open.



References

- ▶ Chin, M. K., Wong, S. K., So, C. H., Steininger, K., and Lo, T. L. (1995). Sport specific fitness testing of elite badminton players. *British Journal of Sports Medicine*, 29, 3, 153-157.
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