

# ITF Coaches Education Programme



Coaching Beginner and Intermediate Players Course

## Development of young beginner and intermediate players

# Growth and development in tennis

- Playing tennis for life
- Providing training and competitive pathways
- Primary characteristics of growth and development - coach needs to know
- Children are unique at each stage of their development

# Growth and Maturation



- Childhood - steady growth and maturation
- Gender differences are small
- Puberty - physiological change
- Boys - 11-14 years old
- Girls - 9-13 years old
- Growth velocity - boy/girl
- Chronological vs. biological age
- Early matures - achieve outstanding results

# Physical development

- Aerobic, anaerobic and muscle strength increase with age
- Strength - discouraged
- Speed
- Flexibility
- Core muscles
- Motor skills
- Agility Balance Co-ordination
- Different enjoyable sporting activities
- During puberty – Co-ordination

# Summary of development

Approx. age	Phase of muscular adaptation	Muscular strength and flexibility	Metabolism: Endurance	CNS: Co-ordination and speed
6-10	Preventative and development phase	<ul style="list-style-type: none"> <li>Weak supporting muscles</li> <li>Little testosterone</li> <li>Supple skeletal system</li> <li>Good flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Relatively high heart rates</li> <li>VO<sub>2</sub> max ≈ 40ml/kg/min</li> <li>Favourable adaptation of aerobic metabolism</li> <li>Sub-optimal anaerobic energy supply</li> </ul>	<ul style="list-style-type: none"> <li>Brain growth 90% complete</li> <li>Commencement of good movement coordination</li> <li>Favourable development of reaction and frequency speed</li> </ul>
9-13	Balancing and development phase	<ul style="list-style-type: none"> <li>Little testosterone</li> <li>Developing skeletal system</li> <li>Common muscular imbalances</li> <li>Good inter- and intra-muscular coordination</li> <li>Satisfactory flexibility</li> </ul>	<ul style="list-style-type: none"> <li>VO<sub>2</sub> max ≈ 40-48ml/kg/min (Untrained)</li> <li>VO<sub>2</sub> max ≈ 60ml/kg/min (Trained)</li> <li>Sub-optimal anaerobic processes with increased catecholamine distribution</li> </ul>	<ul style="list-style-type: none"> <li>Brain fully matured</li> <li>Very good motor coordination</li> <li>Favourable movement reaction and frequency</li> </ul>
12-16	Stabilising phase	<ul style="list-style-type: none"> <li>Increasing androgen and oestrogen distributions</li> <li>Unstable skeletal system</li> <li>Limited flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Favourable aerobic processes</li> <li>Gradually improving anaerobic processes</li> </ul>	<ul style="list-style-type: none"> <li>Possible coordinative limitations (associated with growth)</li> <li>Favourable speed-strength development</li> </ul>
15-19	Forcing Phase	<ul style="list-style-type: none"> <li>Stabilisation of skeletal system</li> <li>Peak hypertrophy rates</li> <li>Reduced flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Very good aerobic and anaerobic processes</li> </ul>	<ul style="list-style-type: none"> <li>Renewed favourable coordinative capabilities</li> <li>High speed capabilities</li> </ul>

# Psycho-social Development

- Psycho-social issues - core of human growth and development
- Children like to have fun
- Good behaviour and sportsmanship
- Receive encouragement from significant others
- Age 8 - explicit operations
- Discipline should be set
- Puberty - critical period psychologically
- Motivational perspective - training and comp
- Post-pubescent
- Self development - increasingly important and encouraged
- Psychological development - enjoyment and satisfaction

# Approaches to skill and expertise development

- Multilateral or multi-skill development
- Development of a variety of fundamental skills
- Specialization-when???
- Examples
- Swedish tennis players

# Early Specialisation



- 10 years of 10,000 hours
- Biological and cognitive development
- Social isolation???
- Drop out
- Conclusions
  - Variety of practice environments
  - Formative period - 8-14 years old
  - Fundamental perceptual and motor skills
  - Devise an environment
  - Training and competition ratios



# Development phases

- Sensitive periods
- General development phases



Hohm (1987)	Bompa (2000)	Grosser & Schonborn (2003)	Lubbers & Gould (2003)	Balyi & Hamilton (2003)	Wolfenden & Holt (2005)	Tennis (2007)	ITN
Pre-Competitive (6 – 10 years)	Pre-puberty – initiation	Versatile Basic (4 – 6/7 years)	Introduction / foundation stage I (6-8 years)	Fundamentals (6-9 years)	Sampling (3 – 8 years)	Explore (4 – 7 years)	10.3 10.2 10.1 10 9
Overall (11-14 years)	Puberty – athletic formation	Basic (6/7 – 9/10)	Introduction / foundation stage II (9-12 years)	Learning to train (8-12 years)	Specialising (8-13 years)	Development (7 – 10 years)	9 8 7
Specific (15-18 years)	Post-puberty – specialisation	Development – I (9/10 – 11/13)	Refinement and transition stage I (10-15 years)	Training to train (11-16 years)	Investment (13-15 years)	Encourage (10 – 12 years)	7 6 5
High performance (18+)	Maturation - high performance	Development – II (11/13 – 14/15)	Refinement and transition stage II (15-20 years)	Training to compete (15-18 years)	Maintenance (20+ years)	Enhance (12 – 15 years)	5 4
		Connecting (14 – 16/18)	World class performance stage I (15-22 years)	Training to win (17+ years)	Repayment (30+ years)	Cultivate (15 – 17 years)	4 3 2
		Top-class competitive (16-19)	World class performance stage II (23-30 years)	Retirement/ Retaining/ Active for life		Performance (17+ years)	2 1

# Development Plans



- General rules to the development of a player
- Complex system
- Practice
- Psychological stability

# Elements of a Development Plan

- Long term (approx 10 years)
- Training methods and age specific loads - quality
- Player competencies
- Methods and systems of player's characteristics
- Nutritional and hydration guidelines
- Schedule of practices
- Competitive pathways
- Provision for education
- Extent of participation in other sports
- General and tennis specific goals for each phase
- Scheduling and Periodisation
- Roles and responsibilities

# First Phase - Beginner player

- Fall in love with the game
- Age - 3-4 up to 8-9 years old
- Approx ITN 10.3-10
- Training principles
- Periodisation
- Physical competencies
  - Motor
  - Strength
  - Footwork
  - Additional capacities
- Technical competencies
  - Groundstrokes
  - Serve
  - Forehand and backhand volleys
  - Smash

# First Phase-Beginner players cont.

- Tactical competencies
- Psychological competencies
- Social competencies
- Education
- Competition/Tournaments
- Loads

# Second Phase - Beg/Int. player

- Formative stage of player development-keep motivated
- Age 8-9 up to 10-11 years old
- ITN 10-9
- Training principles
- Single periodisation
- Physical competencies
  - Motor skills
  - Flexibility
  - Speed/Agility
  - Strength
  - Power
  - Endurance
  - Multi-sport/activity experience
  - Footwork

# Second phase cont.



- Technical competencies
  - Groundstrokes
  - Serve
  - Forehand and backhand volleys
  - Smash
- Tactical competencies
  - 5 game situations
- Psychological competencies
  - General
  - Emotional control
  - Other Psychological competencies
- Social competencies
- Education competencies
- Competition/Tournaments
- Loads

# Third Phase - Intermediate player

- Specialisation stage of player development
- Age period -10-11 up to 12-13
- ITN-8-9
- Training principles-prioritising and programming
- Single Periodisation
- Physical competencies
  - Motor skills
  - Fundamental motor skills
  - Physical proficiency abilities
  - Flexibility
  - Speed/agility
  - Strength
  - Power
  - Endurance
  - Multi-sport experience/cross training
  - Footwork
  - Additional capacities



# Third Phase cont.



- Technical competencies:
  - General
  - Stances
  - Swing and ball control
  - Grips
  - Segment rotations
  - Serve
  - Return
  - Forehands
  - Backhands
  - Net game
- Tactical competencies:
  - 5 game situations

# Third phase cont.



- Mental competencies
  - Motivation
  - Emotional control
  - Other psychological competencies
- Social competencies
- Education
- Competition/Tournaments
- Loads
- Development of tennis talent fragile process

# Leadership skills



- How to be a good leader:
  - Creativity
  - Sincerity
  - Organization
  - Set rules
  - Flexibility
  - Understanding
  - Time management
  - Administration
  - Delegation
  - Adapt to the age of your players
  - Adapt to tennis
  - Learn and improve
  - Help your players to be leaders
  - Improve your communication skills
  - Wisdom

# Playing skills



- Role of playing skills in coaching
- Good player means good coach???
- Continuous education process
- Apprenticeships of observation
- Working with elite players

# Coaching knowledge



- Ability to apply knowledge
- Type of knowledge
  - General
  - Practical
  - Theoretical
- Knowledge fields
  - The player
  - The coach
  - The sport
  - The sport sciences

# Conclusion



- Development plan for all players
- Research
- Difference between biological and chronological age
- Holistic approach
- Volume
- Development phases