Danish National Tennis Seminar 2010

Talent detection, identification and development

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LTA - Defining talent

- Potential for success, to become an elite performer
- The ability in one skill above the average
- Talent originates in genetic structures and is therefore largely innate
- Talent is not easy to spot at a young age, though there are early indicators of potential
- These indicators can be reliable predictors for later. Only a small number are truly talented (15% rule)
It has been said that talent identification is like looking for a black cat in a dark room!
Grosser and Schönborn (2002): “the majority of young players follow the path of rapid and early tournament success. These children miss all basic training and basic fundamentals. Because they are not prepared for the high performance demands, they remain under their potential possibilities. They soon disappear within the multitude of nameless, average players.”
Grosser and Schönborn (2002): “by the time children are about 12 years of age, their coordination development, the development of speed and tennis technique are of major importance. For this reason these children are among losers. Around the age of 14 to 16 the picture begins to change dramatically; they begin to beat former winners. Because of the excellent physical and technical basis, they can hold this performance level for a number of years and even improve it. They are seldom prone to injuries, regenerate fast and are mentally strong.”
The complexity of talent identification in tennis

• The current search for defining, measuring, scoring and evaluating the important characteristics that indicate the potential ability of a tennis athlete is far from finished.

• There is currently no universally accepted model, though Australia is currently leading the field in research.
The complexity of talent identification in tennis

The key to talent identification is to determine how much of the performance outcome can be measured (Hoare, 2001). In order to achieve this, three issues should be considered:
1. Tennis is an open sport

1. tennis is a relatively "open" skilled sport,
2. it is difficult to identify and define objective performance measurements that can be used to determine which tennis player has the potential to be superior.
3. there is not only one 'recipe for success'.
4. what do these elite tennis players have in common?
2. Uncontrollable factors

1. The characteristics measured or searched for, are subject to uncontrollable factors such as maturation, social influence, psychological changes, response to tennis training and the requirements of the future game.

2. This makes it impossible to draw conclusions from a one-off observation or screening.

3. Therefore a follow-up approach (process of talent selection) is indispensable to discover tennis talent.
3. Simplicity

1. Tennis talent identification and selection has to be relatively simple. Straightforward measurements should be carried out so that a lot of children can be tested in a short time.

2. Results, when compared to reference data of tennis talented players who reached the top, should allow you to get a good/fairly accurate indication of the potential talent.

3. But tennis performance will never be determined by scientific data and prediction of future success will not be covered by a single battery of tests. That is why the ‘eyes and nose’ of an experienced coach is so important.
Two classical models

• Natural selection based on competitive performance (best rising to the top) and selective ID by coaches (nose and eyes)

• Scientific selection based on selections through screening and testing of physical and mental abilities
LTA - Defining talent

Essentially talent is complex in nature and identification is:
• difficult and rarely as precise as in other olympic sports
• time consuming
• on-going and needing constant updating
Requirements at top junior level

- Motor functions (speed, coordination, agility, strength)
- Tactical skills and game instincts
- Mental features including:
  - achievement motivation
  - emotional stability
  - mental toughness
  - concentration
Requirements at top junior level

- Behaviour and performance in competition (not results)
- Development of biological age
- Social background and home support
- Tempo and progress of learning
- Ability to compensate for own weaknesses and use strengths
- These factors are not easily observed at a young age
These indicators point to:

• looking for the player holistically in the identification process
• using a combination of instinctive and scientific approach (some features can be measured and some are observed by experienced coaches)
Off court indicators for 6-10’s

• Creating a fun learning environment
• Developing good habits, discipline and a great attitude
• Working to a long term plan with short term targets
• Having a great support team (parents, coaches, players)
On court indicators for 6-10’s

• High level motor skills:
  - speed
  - agility
  - coordination

• Tactical skills and game instincts

• Technical potential

• Mental features including:
  - determination
  - competitiveness
  - focus (task application)
Average 12/13 years old players, who “made it” (Unierzyski, 2003)

- They were 3-4 months younger (within the same age group) than the average
- Were slimmer than the average 12/13 years old tennis player
- Were less powerful
- Usually were faster and much more agile than top under 12/13 players
- More often were born as a second child
Average 12/13 years old players, who “made it” (Unierzyski, 2003)

- They practice on court on average 10 hours per week, which is around the mean value for this age group but much less than player who “did not make it”
- Started to practice on average at the age of 6, have been participating in tournaments since they were 9 and started to travel abroad at the age of 11.
- Played 45-50 singles and 15 doubles per year (below the average)
- They were doing 2 hours per week more of than the mean value
- At least one of their parents was a tennis player
- Their parents were usually very well educated (better than average IQ)
The best (not most talented) kids in the study showed:

• greater playing age
• more time spent on tennis-specific training
• greater number of tournament matches
• acceleration in biological development
• higher calendar age
It is important from the point of view of the talent identification that a talented player cannot have big “gaps” in any important ability or a factor limiting performance, even at the age of 10-12. For example: a slow player can be the champion at the age of 12 but never at the age of 20. Since it is almost impossible to have all predispositions on a maximum level (e.g. speed vs. endurance) a talented player ought to have all (or almost all) abilities on a good (e.g. around average or better) level at his/her disposal.
If you want a 12 year old superstar who will drop out later....

• Practice (on court) more than 15 hours
• Avoid other sports/games and fitness training.
• Focus on power and endurance
• Forget about silly games and coordination exercises
• Try to play as many tournaments as possible but never play doubles!
More chance of a champion if...

• you look for skinny and agile kids who have older brothers/sisters and whose parents are recreational tennis players; avoid heavily build, biologically accelerated children of low educated parents

• you let them start practicing early (±6-7) but do not practice too much (9-10 hours on court + 4-5 of physical training at the age of 12-13), focus on technique, speed and coordination. Not too much power and endurance!!
Where you live seems to be important too!

- Analysis of the post-Björn Borg boom years in Swedish tennis showed that elite players mainly came from rural areas.
- Percentage of NHL players who come from cities of populations more than 500,000: 13
- Overall percentage of Americans from cities over 500,000 is 52.
- 29% of NBA players from big cities
- 15% of MLB players from big cities
- 13% of PGA golfers from big cities
...and so is sibling order!

- Daniel Coyle (*The Talent Code: Greatness Isn’t Born, It’s Grown*) traces the lineage of world and Olympic champion sprinters and finds an astonishing majority are low in the sibling order.
LTA physical tests and talent ID

• Help to emphasise importance of physical aspects for tennis
• Help measure improvement over time
• Help identify natural and developed strengths and weaknesses
• Help measure progress over time
• Help identify naturally talented athletes
LTA Physical tests

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<td>Speed</td>
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<tr>
<td>Cone Test</td>
<td>Agility, Fine Motor Skills, Balance</td>
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<tr>
<td>Ball Throw</td>
<td>Upper body strength, Co-ordination</td>
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<tr>
<td>Standing Jump</td>
<td>Lower body strength</td>
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# LTA Mental/competitive tests

<table>
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<th>Exercise</th>
<th>To Evaluate</th>
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<tr>
<td>Co-ordination</td>
<td>learning speed, focus, determination</td>
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<td>Exercises</td>
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<td>Other Games</td>
<td>competitiveness, problem solving</td>
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<tr>
<td>Match Play</td>
<td>tactical awareness, court coverage, competitiveness</td>
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Reasons for the choice of tests

- Simple and repeatable
- Basic motor and neural capacities
  - Inter muscular co-ordination
  - Balance
  - Agility
  - Speed
  - Explosive power
- Basic anthropometric data
- Flexibility = training tests
- Maximal power, endurance = later development
LTA 20m sprint test

Procedure:
- 1 proper test
  - Starting position: ready position
  - Starting signal:
    - coach at the opposite side of the running track
    - coach says “ready”
    - coach pulls hand down indicating "start" (stopwatch in other hand)
    - as hands starts to fall, start the stopwatch

Scoring system:
Time elapsed from start till crossing 20m
Time in seconds and milliseconds
LTA Standing broad jump test

- **Procedure:**
  - 1 proper test
    - 1 practice trial
    - 3 live test
  - If player loses his balance when landing, they have to do the test again.

- **Scoring system:**
  - Distance from starting line to heel of back foot
  - Distance in meters and centimetres
    - Crossing the line prior to jumping: restart (once)
LTA Standing ball throw

| Procedure:  
| - Warm up (free number of balls)  
| - Then 3 proper go's  
|   - Landing over starting line allowed as in tennis serve  
| Scoring system:  
| - Distance from starting line to ball bounce in a straight line  
| - Distance in meters and centimetres  
|   - Throwing out of range: retest (max 6 throws)  

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[Image: tennis10s.png]

[Image: INSPIRE COACH.png]
LTA Hexagon test

- Procedure:
  - 1 practice trial (full execution)
  - 2 live tests (3 rounds); both scores count
    - In order to have a recuperation period, all players do the practice test one by one, after which they do the first proper test one by one, and finally do the second proper test one by one.
  - Determined jumping order (clockwise rotation)

- Scoring system:
  - Time elapsed from start till final landing (both feet within hexagon)
  - Time in seconds and milliseconds
  - Number of times player steps on the line
  - Penalty points:
    - 0.5 seconds for stepping on the line
    - missing the proper order: retest (once)
LTA Star drill test

• Procedure:
  - Full star drill
  - 1 practice trial
  - 1 live test
    • In order to have a recuperation period, all players do the practice test one by one, after which they do the proper test one by one.
  - Starting position: ready position
  - Player can choose starting direction
  - Determined order (baseline-diagonal-forward-diagonal-baseline)
  - Record time after third ball is on the racket AND after fifth ball is on the racket
  - Balls have to be ON the racket

• Scoring system:
  - Time elapsed from start till final ball is ON the racket
  - Time in seconds and milliseconds
  - Number of times ball leaves the racket
  - Quality of execution
LTA Star drill test
“My child is talented (I think!)”

Example 1 The observation that a 3 month old baby was particularly gifted for swimming, because of the extremely vigorous splashing behaviour noticed during bath time. The mother was seeking advice on how to maximise this natural predisposition to elite swimming.
“My child is talented (I think!)”

Example 2 A father’s observation that his teenage son might have the potential to be an excellent weightlifter because of the prowess he had shown with the ‘springy thing’ they had at home (turned out to be the old Charles Atlas chest expander).
“My child is talented (I think!)”

Children decide to become elite athletes — not parents!
Helping talent to excel

- Avoid always pitching at the middle ground — break the chains of mediocrity
- Set high goals for your athletes — achieve the impossible, ‘shoot for the moon’
- Continually sell excellence in your programme. Good is not enough when perfect is possible
Helping talent to excel

• Help conjure up the conviction that your athletes CAN
• Competition experiences should include those which are at, below, and above the athlete’s own level of competition. Especially praise efforts when athletes step up a level.
• Experiment competing in the worst conditions — develop adaptable athletes
• Don’t place skill extension ahead of skill acquisition
• Great athletes always do more than the coach asks, and great coaches always do more than the athlete expects.
Good luck in your search for the black cat!