Coaching Youth: Meeting the Challenge, Raising our Games

Jean Côté, Ph.D, Queen’s University
A Development Framework for Sport

**Influences**
- Environment
- Individual Characteristics
- Social Agents

**Developmental Activities**
- Youth/Adult driven
- Instrumental/Intrinsic

**Growth of Personal Assets**
- Competence
- Confidence
- Connection
- Character

**Outcomes**
- Participation
- Performance
- Personal Development

**TIME**
Influences

- **Individual characteristics**: physical attributes, mental characteristics, age, gender, etc.

- **Social agents**: coaches, teachers, parents, siblings, peers, teams, etc.

- **Environment**: policies, access to facilities, equipment, communities, clubs, etc.
A Development Framework for Sport

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- Youth or Adult driven
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- Confidence
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- Character

Outcomes
- Participation
- Performance
- Personal Development

TIME
Developmental Activities

1. Youth-driven or adult-driven

2. Instrumental or intrinsic value

(Côté, Erickson, & Abernethy, in press)
Youth-Driven Activities

1. **Intrinsic value**: Deliberate play or “pick-up” games
2. **Instrumental**: Spontaneous practice - activities structured by youth with the goal of improving performance outside of a formal training program
Adult-Driven Activities

1. **Instrumental**: Deliberate practice
2. **Intrinsic value**: Play Practice or Teaching games for understanding
3. **Mix of instrumental and intrinsic value**: Organized competition
**RATIONAL LEARNING**
Prototype Activity: Deliberate Practice

**INFORMAL LEARNING**
Prototype Activity: Spontaneous Practice

**EMOTIONAL LEARNING**
Prototype Activity: Play Practice

**CREATIVE LEARNING**
Prototype Activity: Deliberate Play

- **Instrumentality**
- **Organized Competition**

- **Adults**
- **Youth**
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TIME
Growth of Personal Assets

1. Competence:
   - Positive view of one’s action in sport. Learning sport specific skills, competing, and performing.

2. Confidence:
   - An internal sense of positive self-worth in sport.

3. Connection:
   - Positive bonds with people and institutions in the sport environment.

4. Character:
   - Respect for rules, integrity, empathy for others.

(Côté, Bruner, Erickson, Strachan, & Fraser-Thomas, 2010; Jelicic, Bobek, Phelps, Lerner, & Lerner, 2008; Lerner, 2004)
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Outcomes

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- Performance
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TIME
Outcomes

1. Performance:
   - Develop motor skills for future elite athletes.

2. Participation:
   - Improve physical health and continued participation.

3. Personal Development:
   - Contribute to positive youth development and developmental assets such as discipline, self-control, leadership, cooperation.

Côté & Fraser-Thomas, 2007
A Development Framework for Sport

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**TIME**
A Development Framework for Sport

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Developmental Activities

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Outcomes

- Participation
- Performance
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TIME
The city size where youth gain their first experiences in sport may potentially have a significant influence on their future Performance and Participation in sport, and Personal development through sport.
<table>
<thead>
<tr>
<th>Big Cities</th>
<th>Smaller Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Optimal facility resources (arenas, golf courses, fields)</td>
<td>1. Facilities may not be optimal.</td>
</tr>
<tr>
<td>2. Specialized coaching</td>
<td>2. Casual coaching</td>
</tr>
<tr>
<td>3. Formal sport settings (practices, games)</td>
<td>3. Formal and informal sport settings</td>
</tr>
<tr>
<td>4. Adult supervision required</td>
<td>4. Not always required</td>
</tr>
<tr>
<td>5. Sport is played with individuals of similar age, size, and ability</td>
<td>5. Variability in players’ age, size, and ability</td>
</tr>
<tr>
<td>6. Push towards year-long participation in one sport</td>
<td>6. Seasonal sports more common</td>
</tr>
</tbody>
</table>
1. Do a greater proportion of elite athletes come from small cities or big cities (Performance)?

2. Is youth sport participation higher in small cities or big cities (Participation)?

3. Are there differences in the developmental assets of youth sport participants in small cities and big cities (Personal development)?
Methods

- Participants
  - Total: 4,397 professional athletes
    - Hockey: 549 Canadian Males, 151 American Male
    - Baseball: 907 American Males
    - Basketball: 436 American Males
    - Golf: 197 Americans Males; 112 American Females
    - American Football: 1,969 American Males
    - Soccer: 76 American Females

(Côté, MacDonald, Baker, & Abernethy, 2006; MacDonald, Cheung, Côté, & Abernethy, 2009; MacDonald, King, Côté & Abernethy, 2009)
Methods

- Birthplace (city and state/province) recorded from official websites
- Distributions compared to census proportions
  - Canadian hockey compared to 1976 census
  - U.S. sports compared to 1980 census
- Odds ratios were calculated across the different city sizes for the U.S. and Canadian data
  - The odds ratios were calculated by dividing the odds of becoming a professional athlete in each city size bracket by the odds of being born in a specific city size.
<table>
<thead>
<tr>
<th>City size</th>
<th>U.S. Pop (%)</th>
<th>NHL(%)</th>
<th>O.R.</th>
<th>(C.I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5,000,000</td>
<td>9.9</td>
<td>.7</td>
<td>.06</td>
<td>(.16, -.04)</td>
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<td>2,500,000 – 4,999,999</td>
<td>11.4</td>
<td>2.6</td>
<td>.21</td>
<td>(.24, .19)</td>
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<tr>
<td>1,000,000 – 2,499,999</td>
<td>18.1</td>
<td>3.3</td>
<td>.15</td>
<td>(.18, .13)</td>
</tr>
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<td>6.6</td>
<td>.50</td>
<td>(.51, .49)</td>
</tr>
<tr>
<td>250,000 – 499,999</td>
<td>11.0</td>
<td>12.6</td>
<td>1.16</td>
<td>(1.17, 1.16)</td>
</tr>
<tr>
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<td>17.9</td>
<td>2.05</td>
<td>(2.05, 2.05)</td>
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<td>17.2</td>
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<td>39.1</td>
<td>1.79</td>
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<td>U.S. Pop (%)</td>
<td>MLB (%)</td>
<td>O.R.</td>
<td>(C.I)</td>
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<td>----------------------</td>
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<td>2.9</td>
<td>.14</td>
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<td>17.8</td>
<td>2.04</td>
<td>(2.04, 2.04)</td>
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<td>1.1</td>
<td>16.8</td>
<td>20.82</td>
<td>(20.82, 20.82)</td>
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<td>&lt; 50,000</td>
<td>26.4</td>
<td>37.7</td>
<td>1.69</td>
<td>(1.69, 1.69)</td>
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</table>
### U.S. Basketball (n=436)

<table>
<thead>
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<th>U.S. Pop (%)</th>
<th>NBA (%)</th>
<th>O.R.</th>
<th>(C.I)</th>
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<tbody>
<tr>
<td>&gt;5,000,000</td>
<td>9.9</td>
<td>3.9</td>
<td>.37</td>
<td>(.38, .36)</td>
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<td>11.4</td>
<td>6.7</td>
<td>.55</td>
<td>(.56, .55)</td>
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<tr>
<td>1,000,000 – 2,499,999</td>
<td>18.1</td>
<td>6.9</td>
<td>.33</td>
<td>(.34, .33)</td>
</tr>
<tr>
<td>500,000 – 999,999</td>
<td>12.4</td>
<td>11.9</td>
<td>.96</td>
<td>(.96, .95)</td>
</tr>
<tr>
<td>250,000 – 499,999</td>
<td>11.0</td>
<td>15.6</td>
<td>1.50</td>
<td>(1.50, 1.49)</td>
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<tr>
<td>100,000 – 249,999</td>
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<td>16.1</td>
<td>1.80</td>
<td>(1.80, 1.80)</td>
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<td>(10.86, 10.86)</td>
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<td>&lt; 50,000</td>
<td>26.4</td>
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<td>1.10</td>
<td>(1.10, 1.09)</td>
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<tr>
<td>City size</td>
<td>U.S. Pop (%)</td>
<td>NFL (%)</td>
<td>O.R.</td>
<td>(C.I)</td>
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<td>-------------------</td>
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<td>---------</td>
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<td>11.4</td>
<td>2.5</td>
<td>.20</td>
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<tr>
<td>1,000,000 – 2,499,999</td>
<td>18.1</td>
<td>3.9</td>
<td>.18</td>
<td>(.18, .17)</td>
</tr>
<tr>
<td>500,000 – 999,999</td>
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<td>8.7</td>
<td>.67</td>
<td>(.67, .67)</td>
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<tr>
<td>250,000 – 499,999</td>
<td>11.0</td>
<td>11.7</td>
<td>1.08</td>
<td>(1.08, 1.07)</td>
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<tr>
<td>100,000 – 249,999</td>
<td>9.6</td>
<td>12.7</td>
<td>1.37</td>
<td>(1.37, 1.37)</td>
</tr>
<tr>
<td>50,000 – 99,999</td>
<td>1.1</td>
<td>10.7</td>
<td>10.79</td>
<td>(10.79, 10.79)</td>
</tr>
<tr>
<td>&lt; 50,000</td>
<td>26.4</td>
<td>49.8</td>
<td>2.77</td>
<td>(2.77, 2.77)</td>
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<tr>
<td>City size</td>
<td>U.S. Pop (%)</td>
<td>PGA (%)</td>
<td>O.R.</td>
<td>(C.I)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------</td>
<td>---------</td>
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<td>9.9</td>
<td>.5</td>
<td>.04</td>
<td>(.16, -.08)</td>
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<td>2,500,000 – 4,999,999</td>
<td>11.4</td>
<td>1.0</td>
<td>.08</td>
<td>(.14, .01)</td>
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<tr>
<td>1,000,000 – 2,499,999</td>
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<tr>
<td>500,000 – 999,999</td>
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<td>250,000 – 499,999</td>
<td>11.0</td>
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<td>1.64</td>
<td>(1.64, 1.63)</td>
</tr>
<tr>
<td>100,000 – 249,999</td>
<td>9.6</td>
<td>13.5</td>
<td>1.46</td>
<td>(1.47, 1.46)</td>
</tr>
<tr>
<td>50,000 – 99,999</td>
<td>1.1</td>
<td>11.1</td>
<td>11.18</td>
<td>(11.18, 11.18)</td>
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<tr>
<td>&lt; 50,000</td>
<td>26.4</td>
<td>45.7</td>
<td>2.34</td>
<td>(2.35, 2.34)</td>
</tr>
</tbody>
</table>
# U.S. Women’s Golf (n=112)

<table>
<thead>
<tr>
<th>City size</th>
<th>U.S. Pop (%)</th>
<th>LPGA (%)</th>
<th>O.R.</th>
<th>(C.I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5,000,000</td>
<td>10.0</td>
<td>.9</td>
<td>.08</td>
<td>(.16, -.05)</td>
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<tr>
<td>2,500,000 – 4,999,999</td>
<td>11.4</td>
<td>1.8</td>
<td>.14</td>
<td>(.18, .09)</td>
</tr>
<tr>
<td>1,000,000 – 2,499,999</td>
<td>18.1</td>
<td>2.7</td>
<td>.12</td>
<td>(.16, .09)</td>
</tr>
<tr>
<td>500,000 – 999,999</td>
<td>12.4</td>
<td>9.8</td>
<td>.77</td>
<td>(.77, .76)</td>
</tr>
<tr>
<td>250,000 – 499,999</td>
<td>11.0</td>
<td>9.8</td>
<td>.88</td>
<td>(.89, .87)</td>
</tr>
<tr>
<td>100,000 – 249,999</td>
<td>9.6</td>
<td>13.4</td>
<td>1.46</td>
<td>(1.46, 1.45)</td>
</tr>
<tr>
<td>50,000 – 99,999</td>
<td>1.1</td>
<td>23.2</td>
<td>27.2</td>
<td>(27.2, 27.2)</td>
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<tr>
<td>&lt; 50,000</td>
<td>26.3</td>
<td>38.4</td>
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<td>(1.74, 1.73)</td>
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</table>
## U.S. Women’s Soccer (n=76)

<table>
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<th>City size</th>
<th>U.S. Pop (%)</th>
<th>WUSA (%)</th>
<th>O.R.</th>
<th>(C.I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5,000,000</td>
<td>10.0</td>
<td>1.3</td>
<td>.12</td>
<td>(.15, .09)</td>
</tr>
<tr>
<td>2,500,000 – 4,999,999</td>
<td>11.4</td>
<td>0.0</td>
<td>.00</td>
<td>(.0, .0)</td>
</tr>
<tr>
<td>1,000,000 – 2,499,999</td>
<td>18.1</td>
<td>0.0</td>
<td>.00</td>
<td>(.0, .0)</td>
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<tr>
<td>500,000 – 999,999</td>
<td>12.4</td>
<td>18.4</td>
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<td>11.0</td>
<td>13.1</td>
<td>1.22</td>
<td>(1.23, 1.22)</td>
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<tr>
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<td>2.31</td>
<td>(2.32, 2.31)</td>
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<td>6.6</td>
<td>6.33</td>
<td>(6.33, 6.33)</td>
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<tr>
<td>&lt; 50,000</td>
<td>26.3</td>
<td>40.8</td>
<td>1.92</td>
<td>(1.92, 1.92)</td>
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</tbody>
</table>
Birthplace and Performance: Other Studies

- **Supportive:**
  - Curtis & Birch, 1987 (Canadian professional ice hockey players)
  - Carlson, 1988 (Swedish professional tennis players)
  - Abernethy & Farrow, 2004 (Australian professional team sport athletes)
  - Baker & Logan, 2007 (Canadian junior hockey players)
  - Lidor, Côté, Arnon, Zeev, & Cohen-Maoz 2010 (team sports athletes from Israel)
  - Bruner, MacDonald, Pickett, & Côté, 2011 (ice hockey players from Finland, Sweden, USA, and Canada)
Birthplace and Performance: Other Studies

- Mixed support:
  - Schorer, Baker, Lotz & Büsch, 2008 (German youth elite handball players)
  - Baker, Schorer, Cobley, Schimmer, & Wattie, in press (Olympic athletes from Canada, USA, UK, and Germany)
Environment: The Birthplace Effect

1. Do a greater proportion of elite athletes come from small cities or big cities (Performance)?

2. Is youth sport participation higher in small cities or big cities (Participation)?

3. Are there differences in the developmental assets of youth sport participants in small cities and big cities (Personal development)?
Birthplace and Participation

- Sample of 146,424 Canadian male youth hockey players
  - Born between 1994-2001
  - Age range: 8-16 years
  - Registered with the Ontario Hockey Federation
  - 2004-2010 seasons
- The relationship between city of development and youth hockey participation.

Turnnidge, Hancock, & Côté, in preparation
## Results

<table>
<thead>
<tr>
<th>City Size</th>
<th>ONT Pop (%)</th>
<th>OHF (%)</th>
<th>OR</th>
<th>(CI)</th>
</tr>
</thead>
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<td>23.37</td>
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<td>0.94-0.97</td>
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<td>1.07-1.10</td>
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<td>25,000-49,999</td>
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<td>1.46-1.52</td>
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<td>1.07-1.11</td>
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<td>5000-9999</td>
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<td>1.23-1.29</td>
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<td>0-999</td>
<td>0.76</td>
<td>1.07</td>
<td>1.41</td>
<td>1.34-1.49</td>
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</tbody>
</table>
Birthplace and Participation

- Canada General Social Survey (2005)
- Sample:
  - 3,112 children ages 5 to 14
- Definition of sport participation:
  - Sports that one regularly participated in (at least once a week) during the previous 12 months

(Clark, 2008)
Birthplace and Participation

Lower participation in Canada’s three largest cities
Toronto, Montréal, and Vancouver = 47%
Towns between 10,000 and 50,000 = 58%

(Clark, 2008)
1. Do a greater proportion of elite athletes come from small cities or big cities (Performance)?

2. Is youth sport participation higher in small cities or big cities (Participation)?

3. Are there differences in the developmental assets of youth sport participants in small cities and big cities (Personal development)?
Birthplace and Developmental Assets

- 181 swimmers
  - 108 from cities with populations of over 500,000
  - 73 from cities with populations of under 500,000
- Developmental assets questionnaire

(Fraser-Thomas, Côté, & MacDonald, 2010)
Birthplace and Developmental Assets

- 58-item questionnaire (Search Institute, 2004)
- Assesses adolescents’ developmental assets
  1. Support
  2. Empowerment
  3. Boundaries/Expectations
  4. Constructive Time Use
  5. Learning Commitment
  6. Positive Values
  7. Social Competencies
  8. Positive Identity
- Rate statements from rarely (0) to always (3)

(Fraser-Thomas, Côté, & MacDonald, 2010)
## Birthplace and Developmental Assets

<table>
<thead>
<tr>
<th></th>
<th>Small Cities</th>
<th>Large Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support</strong></td>
<td>25.2 (4.0)</td>
<td>22.9 (4.5)*</td>
</tr>
<tr>
<td><strong>Empowerment</strong></td>
<td>25.2 (3.9)</td>
<td>24.3 (4.1)</td>
</tr>
<tr>
<td><strong>Boundaries/expectations</strong></td>
<td>25.0 (4.4)</td>
<td>23.2 (4.0)*</td>
</tr>
<tr>
<td><strong>Constructive time use</strong></td>
<td>19.0 (5.4)</td>
<td>19.2 (5.7)</td>
</tr>
<tr>
<td><strong>Learning Commitment</strong></td>
<td>24.8 (3.7)</td>
<td>22.6 (5.1)*</td>
</tr>
<tr>
<td><strong>Positive values</strong></td>
<td>22.7 (4.1)</td>
<td>22.0 (4.0)</td>
</tr>
<tr>
<td><strong>Social competencies</strong></td>
<td>23.7 (4.4)</td>
<td>23.2 (3.8)</td>
</tr>
<tr>
<td><strong>Positive identities</strong></td>
<td>23.0 (5.1)</td>
<td>21.2 (5.1)*</td>
</tr>
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(Fraser-Thomas, Côté, & MacDonald, 2010)
A Birthplace Effect: Why?
A Case Study of a Community “Hot Spot”

- The purpose of this project was to conduct a single case study to systematically gather rich information via diverse sources to effectively understand how one successful sporting community developed athletic talent within a recent ten year span (2000-2009).

(Balish & Côté, submitted)
The Community:
Lockeport, Nova Scotia, Canada

- Population of 646
- Within last 10 years (2000-2009)
  - Produced ten university level athletes (average graduating class of 24).
  - Soccer and basketball teams at the local high school captured 10 provincial championships - more than double any similar size community in Nova Scotia.
Data Collection

- Archives
  - 28 news articles
  - Provincial government statistics
  - 2 technical reports
  - 14 photographs of local signage and community resources

- Twenty-two interviews with community residents
  - 10 athletes
  - 3 parents / coaches
  - 5 coaches
  - 1 recreation director
  - 1 mayor
  - 1 grandparent
Results

1. Developmental Experiences
2. Community Influences
3. Socio-cultural Influences
Results Highlight: Youth-Driven Activities

- Youth-led play and practice
  - Outdoor mixed-age pick up games
  - Indoor mixed-age scrimmage
  - Self-directed training (i.e. spontaneous practice)
Results Highlight: Coaching

- Coaching
  - Coach same group throughout development
  - Making recreational areas accessible
  - Scheduling high quality competition
  - Bringing guest coaches into community
  - Organizing sporting events within community
<table>
<thead>
<tr>
<th>Big Cities</th>
<th>Smaller Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Optimal facility resources (arenas, golf courses, fields)</td>
<td>1. Facilities may not be optimal</td>
</tr>
<tr>
<td>2. Specialized coaching</td>
<td>2. Casual coaching</td>
</tr>
<tr>
<td>3. Formal sport settings (practices, games)</td>
<td>3. Formal and informal sport settings</td>
</tr>
<tr>
<td>4. Adult supervision required</td>
<td>4. Not always required</td>
</tr>
<tr>
<td>5. Sport is played with individuals of similar age, size, and ability</td>
<td>5. Variability in players’ age, size, and ability</td>
</tr>
<tr>
<td>6. Push towards year-long participation in one sport</td>
<td>6. Seasonal sports more common</td>
</tr>
</tbody>
</table>
Environment of Smaller Cities: 
Features of Positive Developmental Settings  
(U.S National Research Council, 2002)

1. Physical and psychological safety  
2. Appropriate structure  
3. Supportive relationships  
4. Opportunities to belong  
5. Positive social norms  
6. Support for efficacy and mattering  
7. Opportunities for skill building  
8. Integration of family, school, and community efforts
A Development Framework for Sport

Influences

- Environment
- Individual Characteristics
- Social Agents

Developmental Activities

- Youth or adult driven
- Instrumental or Intrinsic

Growth of Personal Assets

- Competence
- Confidence
- Connection
- Character

Outcomes

- Participation
- Performance
- Personal Development

TIME
1. Probable Outcomes
   - RECREATIONAL YEARS
     - High deliberate play
     - Low deliberate practice

2. Probable Outcomes
   - INVESTMENT YEARS
     - High deliberate practice
     - Low deliberate play
     - One sport

   - SPECIALIZING YEARS
     - Play and practice balanced
     - Less involvement in several sports

3. Probable Outcomes
   - EARLY SPECIALIZATION & INVESTMENT
     - High deliberate practice
     - Low deliberate play
     - One sport

SAMPLING YEARS
   - High deliberate play
   - Low deliberate practice
   - Several sports

Entry into sport

Côté, 1999; Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007
The Common Building Blocks: 7 Postulates Associated with the DMSP

- 5 postulates in relation to sampling and deliberate play during childhood.
  - The focus of sport programs during childhood (ages 6-12) should be on *sampling* and *deliberate play* instead of *specialization in one sport* and *deliberate practice*.

- 2 postulates in relation to key developmental transition periods.

Côté, 2007; Côté, Lidor, & Hackfort, 2008
Postulate 1: Sampling and Performance

Early diversification (sampling) does not hinder elite participation in sports where peak performance is reached after maturation.

Supporting evidence:

- **Retrospective quantitative data**: Ice hockey (Soberlak & Côté, 2003), field hockey, basketball, netball (Baker, Côté, & Abernethy, 2003), triathlon (Baker, Côté, & Deakin, 2005), baseball (Gilbert, Côté, Harada, Marchbanks & Gilbert, 2002).
- **Experimental data**: Abernethy, Baker, & Côté (2005) transfer of skills from one sport to another.
- **Qualitative data**: Tennis (Carlson, 1988; Côté, 1999; Monsaas, 1985), baseball (Hill, 1993) and rowing (Côté, 1999).
- **Early specialization sports**: Rythmic gymnastics (Law, Côté, & Ericsson, 2007), women’s figure skating (Starkes, Deakin, Allard, Hodges, & Hays, 1996).
Postulate 2: Sampling and Participation

Early diversification (sampling) is linked to a long sport career and has positive implications for long-term sport involvement.

Supporting evidence:

- **Continued participation quantitative data**: Recreational sport participation (Robertson-Wilson, Baker, Derbinshyre, & Côté, 2003).

- **Dropout/burnout qualitative data**: Tennis (Carlson, 1988; Gould, Tuffey, Udry, and Loehr, 1996), swimming (Fraser-Thomas, Côté, & Deakin, 2008a).

- **Dropout quantitative data**: Ice hockey (Wall & Côté, 2007), swimming (Fraser-Thomas, Côté, & Deakin, 2008b).

- **Length of career data**: Swimming (Barynina & Vaitsekhovskii, 1992), master athletes (Baker, Côté, & Deakin, 2006).
Postulate 3: Sampling and Personal Development

Early diversification allows participation in a range of contexts that most favourably affects youth development.

Supporting evidence:

- **Qualitative data:** Wright & Côté (2003) showed that diversified sport experiences during childhood fostered positive peer relationships and leadership skills in university level athletes.

- **Quantitative data:** Fredricks & Eccles (2006) showed that adolescents’ involvement in a greater number of extracurricular activities was associated with better psychological adjustment, school belonging, and more positive peer context. Strachan, Côté, & Deakin (2009) show different positive experiences for “specializers” and “samplers”.
Postulate 4: Deliberate Play and Performance

A high amount of deliberate play during the sampling years establishes a range of motor and cognitive experiences that the child can ultimately bring to their principal sport of interest.

Supporting Evidence:

- **Qualitative data**: High amount of deliberate play in elite tennis (Carlson 1988; Côté, 1999), rowing (Côté, 1999), and baseball (Hill, 1993).

- **Quantitative data**: Soberlak and Côté (2003), Berry, Abernethy, Côté (2008) - elite players were involved in more deliberate play hours than deliberate practice hours from ages 6 to 12.
Postulate 5: Deliberate Play and Participation

High amounts of deliberate play during the sampling years builds a solid foundation of intrinsic motivation through involvement in activities that are enjoyable and promote intrinsic regulation.

Supporting Evidence:

- **Qualitative data**: High amount of deliberate play and continued sport participation in team sports and swimming (Wright & Côté, 2003; Fraser-Thomas & Côté, 2009).

- **Theories**: Self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000) - early intrinsically motivating behaviors (e.g. deliberate play) will have a positive effect over time on an individual’s overall motivation. Achievement goal theory - a deliberate play environment during the sampling years is closely link to creating a “task” climate (Biddle, 2001; Treasure, 2001).
Postulate 6: Transition from Sampling to Specializing

Around the end of primary school (around age 13), children should have the opportunity to either choose to specialize in their favourite sport or continue in sport at a recreational level.

Supporting Evidence:

- **Quantitative data**: Specialization in one sport does not occur before age 13 in sport where peak performance is reached in adulthood (Baker et al. 2003; Baker et al., 2005; Berry et al., 2008; Gilbert et al., 2002; Soberlak & Côté, 2003).
- **Qualitative data**: Kirk and MacPhail (2003); MacPhail, Gorely, and Kirk (2003).
- **Sport structure**: Weiss and Petlichkoff (1989).
Postulate 7: Transition from Specializing to Investment

Late adolescents (around age 16) have developed the physical, cognitive, social, emotional, and motor skills needed to invest their effort into highly specialized training in one sport.

Supporting Evidence:
- **Quantitative data:** Baker et al. (2003); Baker et al. (2005); Helsen et al. (1998).
- **Qualitative data:** Bloom (1985); Côté (1999).
- **Developmental Readiness:** Patel, Pratt, & Greydanus (2002).
- **Early specialization:** Rythmic gymnastics (Law, Côté, & Ericsson, 2007) and women’s figure skating (Starkes, Deakin, Allard, Hodges, & Hays, 1996) – more injuries and less enjoyment.
1. Probable Outcomes
   - Recreational Participation
     - High deliberate play
     - Low deliberate practice
     - Several sports

2. Probable Outcomes
   - Elite Performance
     - INVESTMENT YEARS
       - High deliberate practice
       - Low deliberate play
       - One sport
     - SPECIALIZING YEARS
       - Play and practice balanced
       - Less involvement in several sports

3. Probable Outcomes
   - Elite Performance Participation?
   - Personal Development?
   - EARLY SPECIALIZATION & INVESTMENT
     - High deliberate practice
     - Low deliberate play
     - One sport

Entry into sport

Côté, 1999; Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007
A Development Framework for Sport

Influences
- Environment
- Individual Characteristics
- Social Agents

Developmental Activities
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- Instrumental or Intrinsic

Growth of Personal Assets
- Competence
- Confidence
- Connection
- Character

Outcomes
- Participation
- Performance
- Personal Development

TIME
Coaching

- How do coaches in different contexts develop athletes’ competence, confidence, connection, and character and maximize athletes’ participation, performance, and personal development?
Participation coach for teens and adults

Performance coach for young adolescents

Performance coach for older adolescents and adults

Participation coach for children

Entry into sport
Performance Coach for Young Adolescent: Athletes’ Characteristics

- Competence
  - Skill improvement, increased effort, time commitment.
- Confidence
  - Comparison with others, physical appearance, social skills.
- Connection
  - Peer acceptance, friendship quality, coach-athlete relationships, school and family pressure.
- Character
  - Sportpersonship, positive values, caring for others.

Erickson, Côté, Hollenstein, & Deakin, 2011; Turnnidge & Côté under review
Coaches of Successful Teams

1. Professional knowledge and behaviors
2. Interpersonal knowledge and behaviors
3. Intrapersonal knowledge and behaviors

Côté & Gilbert, 2009
Coaches of Successful Teams

- Professional Behaviors:
  - Instruction
  - Intervention guided by long-term learning
  - Patterns of intervention (e.g. cycling between observation, positive reinforcement/humor, and technical feedback/instruction.
  - Adaptable

Erickson, Côté, Hollenstein, & Deakin, 2011; Turnnidge & Côté under review
Coaches of Successful Teams

- **Interpersonal Behaviors:**
  - Consistent, patterned mode of personal interaction.
  - Patterns characterized by focusing on the individual.
  - Athletes and coaches were rarely negative.

- **Intrapersonal Behaviors:**
  - Considerable amount of time spent observing.

Erickson, Côté, Hollenstein, & Deakin, 2011; Turnnidge & Côté under review
Conclusion
A Development Framework for Sport

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7. Opportunities for skill building
8. Integration of family, school, and community efforts
**Prototype Activity:**
- **Deliberate Practice** (RATIONAL LEARNING)
- **Spontaneous Practice** (INFORMAL LEARNING)
- **Play Practice** (CREATIVE LEARNING)
- **Deliberate Play** (EMOTIONAL LEARNING)
8 Features of Positive Development Settings

**RECREATIONAL YEARS**
- High deliberate play
- Low deliberate practice

**SAMPLING YEARS**
- High deliberate play
- Low deliberate practice
  - Several sports

**INVESTMENT YEARS**
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**Entry into sport**

Côté, 1999; Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007
Implications
Definition of Coaching Effectiveness

The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes’ competence, confidence, connection, and character in specific coaching contexts.

Côté & Gilbert, 2009
Definition of Coaching Effectiveness

3 components to the definition:

1. Outcomes (4 C’s; competence, confidence, connection, and character)

2. Knowledge domains (professional, interpersonal, and intrapersonal)

3. Contexts (4 contexts based on athletes’ development)
1. Expert coaches in any context develop their athletes’ competence, confidence, connection, and character.

2. Expert coaches in any context have professional, interpersonal, and intrapersonal knowledge.

3. The nature of the knowledge or competencies associated with expert coaches’ knowledge varies according to different coaching contexts.
Coaching Youth

- Environment centered on youth needs instead of performance outcomes (i.e., 8 setting features of the US National Research Council, 2002).
- Focus on intrinsically motivating behaviors (deliberate play) equally as externally controlled activities (deliberate practice).
- Encourage and support multi-sports in a variety of contexts (adult-driven and youth-driven).
Coaching Youth

- Advocate the use of fun pedagogical methods such as “game sense teaching” (Bunker & Thorpe, 1985).

- Adults act as “resource people” who can restructure the play and practice environment (avoid imposing a rigid structure).

- Avoid year-round training in one sport during childhood and early adolescence.
Thank You
Go Raibh Maith Agaibh