Aim of the project
Stimulating sport participation among elementary school children in the province of Friesland. Ultimate aim is to provide three hours of physical education, provided by a physical education specialist, plus two extra hours of sport activities after school, every week.
-part one: describing the differences
-part two: effective interventions
**Theoretical framework**

**Assumptions**

Group teacher vs. Physical education specialist

- Understanding the effects on elementary school children of physical education specialist versus group teachers on:
  - Motor skills
  - Attitude towards physical activity
  - Behavior during the lessons
  - Sport participation
  - Physical activity & Health & Lifestyle

**Population**

<table>
<thead>
<tr>
<th>School year</th>
<th>Grade</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
<th>Class 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2012-2013</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2013-2014</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2014-2015</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Instruments**

- Skills: Movement Assessment Battery for Children (M-ABC-2)
- Behavior: System for Observing Fitness Instruction Time
- Attitude: Questionnaire children
- Sport participation: Questionnaire children
- Health: Questionnaire + BMI
**Instituut voor Sportstudies**

"Wij ontwikkelen innovatieve beroepspraktijken in de sport"

---

**Results (2)**

**Instituut voor Sportstudies**

"Wij ontwikkelen innovatieve beroepspraktijken in de sport"

---

**Sport-participation & physical activity (N=472)**

**Questionnaire:**

Dutch Norm for Health-enhancing Physical Activity (NNGB)

At least one hour of moderately intensive physical activity every day

---

**Attitude towards sport (N=472)**

- Standard questionnaire (grade 1-10)

<table>
<thead>
<tr>
<th></th>
<th>Attitude Sportclub</th>
<th>Attitude sport after school</th>
<th>Attitude physical education</th>
<th>Attitude play outdoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-teacher</td>
<td>9,0</td>
<td>7,7</td>
<td>8,4*</td>
<td>9,1</td>
</tr>
<tr>
<td>Group teacher</td>
<td>8,9</td>
<td>7,8</td>
<td>8,1</td>
<td>9,0</td>
</tr>
</tbody>
</table>

---

**Health (N=472)**

**Test (length and weight)**

- Body Mass Index
  - School with physical education specialist: mean = 16,9 kg/m²
  - School with group teacher: mean = 17,9 kg/m²

<table>
<thead>
<tr>
<th></th>
<th>Severe underweight</th>
<th>Underweight</th>
<th>Normalweight</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-teacher</td>
<td>1,6</td>
<td>12,0%</td>
<td>78,7%</td>
<td>6,0%</td>
<td>1,0%</td>
</tr>
<tr>
<td>group teacher</td>
<td>1,2</td>
<td>10,0%</td>
<td>68,1%</td>
<td>10,8%</td>
<td>1,0%</td>
</tr>
</tbody>
</table>

---

**Skills: M ABC (N=390)**

**Chi-square = 11,98 (1), p < .01**

**Chi-square = 3,70 (1), p = .16**

**Video (SOFIT)**

**Score:**

- General content
- Knowledge content
- Motor content
- Fitness
- Skills
- Game play
- Free play

---

**Group teacher**

**PE-teacher**

---

**Sport behavior (N=3710 observation samples)**

Sofit: 2 observers, 10 seconds interval, 30 lessons

---

**Table:**

BMI in categories (t1)

<table>
<thead>
<tr>
<th></th>
<th>Severe underweight</th>
<th>Underweight</th>
<th>Normalweight</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE-teacher</td>
<td>1,6</td>
<td>12,0%</td>
<td>78,7%</td>
<td>6,0%</td>
<td>1,0%</td>
</tr>
<tr>
<td>group teacher</td>
<td>1,2</td>
<td>10,0%</td>
<td>68,1%</td>
<td>10,8%</td>
<td>1,0%</td>
</tr>
</tbody>
</table>

---

**Share your talent, move the world.**
Discussion & Conclusion

Limitation
• Population is 'convenience' sample (stratification limited)
• Combinations of PE & group teachers
• Environment of the school influences attitude towards sport

Preliminary Conclusion

• A physical education specialist seems to play a crucial role in the development of motor skills and thereby in the amount of physical activity of children in elementary school.

• To strengthen the position of the physical education specialist in the educational system in the Netherlands and to guarantee a physically active future for our children, more research in physical education is more than welcome.

Future
Promising results of a 16 weeks intervention (3 PE lessons, 2 after school sports) on attitude, competence, MPVA)

share your talent, move the world.