Everyone must learn to swim

Hvordan har du det når du skal i svømmehallen?

Jeg elsker det

Det er både

De tvinger mig til det

TrygFonden

DANSK SVØMMEUNION

Stephan Junggren
April 2016
Agenda

- Who is Research & Innovation Center for Human Movement & Learning and I?

- Results from:
  - A literature review on optimal stroke and age
  - A mapping of challenges and opportunities associated with swimming lessons in 19 municipalities
  - Comparative analysis of quality and effect of swimming lessons

- Everyone must learn to swim
FIIBL and I

- Research & Innovation Center for Human Movement & Learning

- Produces and convey practice-oriented research about children and youth in relation to sport, movement and learning

- Department of Sports Science and Clinical Biomechanics & University College Little Belt
Swimming in Denmark

Every other child between 7 - 14 can not swim 200m
(YouGov, 2014)
The curriculum

1st phase
- The child can ensure itself in water
- The child has knowledge of swimming- and floating techniques

2nd phase
- The child can manage itself in and on water
- The child has knowledge of rules of safe behaviour in and on water

3rd phase
- The child can perform lifesaving techniques
- The child has knowledge of lifesaving techniques
Preliminary study I

Literature review

- Screening of selected swim books
- Contact to and meetings with experts
- Scoping study: Systematic literature search in databases
- Screening of relevant articles at INFOMEDIA og DSTF

Most efficient stroke and age to commence swim lessons
Optimal stroke and age

- An ongoing debate with historical and contextual differences

- Most efficient stroke depends on a series of contextual conditions

- Scandinavian-continental model vs. Anglo-Saxon model

- Swim lessons for children between 8 and 11 (2.-4.th grade) in Denmark

- Choice of stroke:
  - >15 lessons – front crawl and backstroke
  - <15 lessons – Breaststroke or ”survival”
First stroke – why?

- Breath Control
- Buoyancy & Balance
- Fundamental skills

Kan du komme op på et redskab, der ligger i vandet?

Jeg kan ikke komme op på redskabet
Jeg kan nogle gange
Ja

Kan du puste bobler under vand?

Ja
Jeg kan puste bobler i vandoverfladen
Det kan jeg ikke

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April 2016
Preliminary study II

- A mapping of challenges and opportunities associated with swimming lessons in Danish public schools.

- The study shows that there is great variation in the school swimming lessons offered by municipalities.

- Expenditures:
  - Pool rental
  - Transport/logistics
In general swimming lessons are emphasised as popular by the three levels

**Opportunities**

- **The administrative level**
  - Outsourcing to the swimming club

- **School management**
  - A new school reform gives opportunities to invite clubs in

- **School teachers**
  - Taking advantage of the learning potential in lower grades

**Challenges**

- **The administrative level**
  - They wish to save money

- **School management**
  - Lack of educated swimming teachers

- **School teachers**
  - Teaching in swimming instead of aquatic competences

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April 2016
Models for school swimming

- Ingen skole-svømning
  - Modellen repræsenterer kommuner med en alternativ svømme-undervisning - f.eks. i havet.

- Den alternative model

- Den intensive model

- Den traditionelle model

- Partnerskabsmodellen

- Skolesvømning halv- eller helårligt med svømmelærer fra skolen (inkl. leje af hal og køb/lån af livreddere fra svømmehallen).

- Skolesvømning halv- eller helårligt varetages i samarbejde med eller af undervisere fra svømmeklub.
**Who are the best teachers?**

**Coaches vs. School teachers**

- **Municipality 1**
  - Open, inductive, good didactic knowledge, focus on PA, BR, **problem solving**, praise, common feedback.

- **Municipality 2**
  - Closed, deductive, demonstration, instruction, CR and BS, individual feedback, praise.

- **Municipality 3**
  - Open, inductive and playful, good overview, problem solving, visible structure, CR and BS, good continuity and progression, partial feedback, good communication, appreciative praise.

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**Concerns:**

- Swimming lessons under the auspices of swimming clubs might develop into a talent development programme.
- Swimming clubs often experience staff changes.

**Recommendations:**

- Upgrading of didactic and pedagogic skills.
- Coaches with long-term employment – consistency.
- Minimise changes in the coaching staff.
- Explicit expectations to the children.
- Partnership between swimming clubs and public schools.
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The research project will extend over a three-year period from 2015-2017

- Launched by:
  - The Danish Swimming Federation
  - TrygFonden

- Participants:
  - 20 Danish municipalities across the country
  - 30+ schools
  - Up to 1500 children
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- The research project focuses on the development, implementation and evaluation of swimming lesson models that promote efficient learning of basic swimming skills.

- **Ambition:** For all children to have basic swimming skills from as early an age as possible.

1. **Increase** the proportion of Danish children who live up to the Nordic definition of being able to swim 200metres (50metres on the back).
2. **Support** the Danish municipalities, including elementary schools, in launching evidence-based initiatives in relation to school swimming lessons.

TrygFonden

Dansk Svømmeunion

FIIBL
The process

Design → Intervention → Evaluation

Action research: Regularly evaluation of practice

November 2014 – May 2015
June 2015 – June 2017
July 2017 – December 2017
# Research methods

<table>
<thead>
<tr>
<th>Quantitative methods</th>
<th>Qualitative methods</th>
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<tbody>
<tr>
<td>Learning Rating Scale (LRS)</td>
<td>Field work - observations</td>
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<tr>
<td>Swim test (15 min)</td>
<td>Analysis of the course plan</td>
</tr>
<tr>
<td>Survey for teachers</td>
<td>Interviews with teachers</td>
</tr>
<tr>
<td>Survey for children</td>
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## Workshops

1. Challenges and opportunities for the future of school swimming
2. Development of models
3. Sharing of knowledge and experiences
4. Implementation and sustainability
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Based on our preliminary studies and workshops with practitioners five models were developed:

1. Open water swimming
2. TechnoSwim – using iPads in swimming lessons
3. Exploratorium – creating a playful approach to moving about in water
4. Multi Swim – working with the four strokes in parallel
5. Partnership – Schools + swimming clubs
Influencing factors

Logistics
- Transport
- Pool rental

Place
- Access to swim pools
- Outdoor pools
- The beach
- Harbour bath
- Open water

Teacher
- Groups, teams, alone
- Roles, hierarchy
- Team work
- Dependence
- Relational competences

Goals
- Evaluation criteria
- Nordic Definition → 200 meter

Relations
- Teacher
- Groups, teams, alone
- Roles, hierarchy
- Team work
- Dependence
- Relational competences

4 basic skills
- Front crawl
- Backstroke
- Breaststroke
- Butterfly
- Multi-stroke

Target group
- Age: 6 – 11 year school children
- Pre-preparatory classes
- Intermediate stage

Approach
- Learning process
- Freedom of method (bottom-up)
- Short axis
- Long axis
- Progression

Content / Focus
- Curriculum
- Competition
- Repetition
- Experiment
- Learning
- Joy of movement
- Self-efficacy
- Motivation

Teachers / Education
- Coaches
- School teachers
- Pedagogues
- Life guards

Organisation
- The sport course
- After-school care
- Before/after school hours
- In swimming clubs
- When in a school year
- Time in water
- Number of lessons

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- Questions we like to answer:

  - What happens if we move swimming lessons from the 4th-5th grade to the 1st-2nd grade?

  - What happens if we intensify swimming lessons with longer lessons over a shorter period?

  - What didactic methods and approaches can be used?