

## Children's water competence evaluated by parents, children and the swimming teacher

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## There are 168 000 lakes in Finland

- Aquatic skills are necessary - especially during the summer months
- Swimming skills are categorized as lifesaving skills
- Therefore, it is mentioned as obligatory content in the national basic curriculum



AIESEP 2019 | 20.6.2019 | 2



## It is necessary for parents to be aware of their children's water competence

- That is why the purpose of this pilot study was to find out parents' awareness about their children's water competence



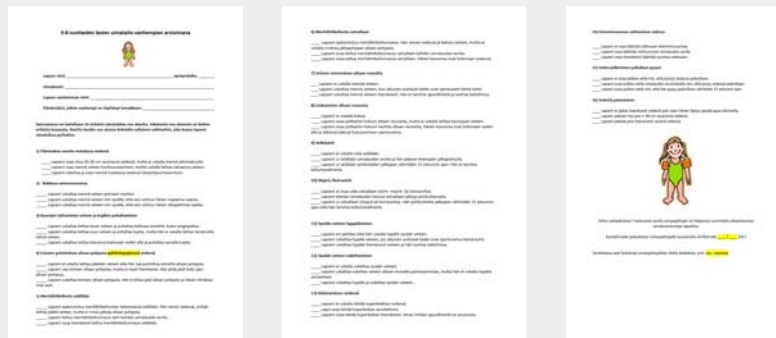
## Methods

- Parents of 13 preschool children (4 boys, 9 girls, 6 –years of age) answered the questionnaire based on the Pictorial Scale of Perceived Water Competence (pilot version 1)
- Parents filled up the questionnaire before their children started the swimming school, taught by the swimming teacher.



## The questionnaire

- The questionnaire included 16 different aquatic situations, at three different skill levels.



## Comparison of parents answers and swimming teacher's evaluation

- During the first lesson, the swimming teacher evaluated children's aquatic skills
- Evaluation was based on the same questionnaire with 16 situations
- Skill levels changed as points:
  - / Not able = 1 point,
  - / In progress= 2 points
  - / Able = 3 points,
  - / max. 48 points
- ⇒ Comparison of answers
- ⇒ Percentage (%) of similar skill level were measured



## Overall agreement

- Agreement percentage between the parents and the swimming teacher was 68,4%

## There were variation of agreement in different situations



Lapsen Numero	Uimataito-osion numero																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	yht.
<b>Työt</b>																	
Lapsi 1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	
Lapsi 2	0	0	0	3	1	0	0	0	0	0	0	0	3	-1	0	0	
Lapsi 3	0	0	0	1	0	1	1	0	0	0	-1	0	0	0	-1	0	
Lapsi 4	0	0	1	0	0	1	1	1	0	0	-1	-1	-1	0	0	0	
Lapsi 5	0	0	0	0	2	3	0	3	1	0	-1	1	0	0	1	0	
Lapsi 6	0	0	0	0	-1	0	0	0	-1	0	0	0	-1	-1	0	-1	
Lapsi 7	0	0	0	0	0	0	1	0	0	1	1	-1	0	0	0	0	
Lapsi 8	0	-1	0	-1	0	0	0	0	0	-1	0	0	0	0	0	-1	
Lapsi 9	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
<b>Erot</b>	0	1	1	3	3	4	3	2	2	3	4	4	3	1	3	2	39
<b>Pojat</b>																	
Lapsi 10	0	0	0	0	2	0	0	0	0	0	1	2	1	0	0	0	
Lapsi 11	0	0	0	0	0	0	0	2	2	0	-1	0	2	0	0	0	
Lapsi 12	0	-1	0	0	-1	-1	0	-1	-1	-1	0	0	0	-1	-1	0	
Lapsi 13	-1	0	-1	-1	1	1	-1	-1	0	-1	-1	0	0	-1	1	0	
<b>Erot</b>	1	1	1	1	3	2	1	3	2	2	3	1	2	2	2	0	27
<b>Erot yhteensä</b>	1	2	2	4	6	6	4	5	4	5	7	5	5	3	5	2	66
Vanhemmat yläarviot	1	2	1	2	2	1	1	2	2	3	5	2	3	3	2	2	34
Vanhemmat aliarviot	0	0	1	2	4	5	3	3	2	2	2	3	2	0	3	0	32
<b>Pojien vanhemmat yläarviot</b>																	
vanhemmat aliarviot																	
<b>Tyttöjen vanhemmat yläarviot</b>																	
vanhemmat aliarviot																	
<b>Yhteneväisyys %</b>																	
	92%	85%	85%	69%	54%	54%	69%	62%	69%	62%	46%	62%	62%	77%	62%	85%	





## Important to realize

Challenge for teachers:

- some parents underestimated their child's skill level (from 1 to 5 points)

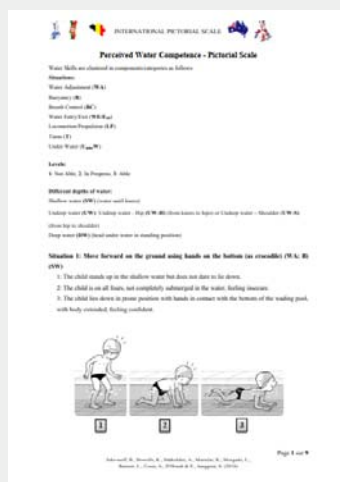
Risk factor:

- some other parents overestimated their children's skill level (from 1 to 5 points)

NOTE: Most difficult item for parents: Water entry by jumping (item 11)



## Pictures might be useful also for parents and give more opportunities for research



## Interesting to measure agreement % between swimming teacher and children?



## Children's own perception compared to teacher's evaluation



Method:

- After swimming school (10 lesson x 60 minutes), children answered the pictorial version of questionnaire
- Teacher evaluated children's skills during the last swimming lesson and filled up the same pictorial version of questionnaire as the children

⇒ Comparison of answers

⇒ Percentage (%) of similar skill level were measured

## Overall agreement was 85,3%



Lapsen numero	Uimataitomittarin osion numero																Pisteet
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
<b>Tytöt</b>																	
Lapsi 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lapsi 2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
Lapsi 3	1	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	
Lapsi 4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
Lapsi 5	0	0	0	0	0	0	0	0	0	0	1	-1	0	0	0	0	
Lapsi 6	1	0	1	0	0	1	0	0	1	1	0	-1	1	0	0	0	
Lapsi 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lapsi 8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	-1	0	
Lapsi 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Erot	3	0	2	0	1	2	1	2	1	1	1	3	1	0	1	0	
<b>Pojat</b>																	
Lapsi 10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lapsi 11	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	-1	
Lapsi 12	0	0	-1	0	0	0	-1	-1	-1	0	0	0	0	0	-1	0	
Lapsi 13	0	0	-1	0	0	0	-1	-1	0	0	0	0	-1	0	0	0	
Erot	1	0	2	0	0	0	2	2	1	0	0	1	1	1	0	1	
Erot yhteensä	4	0	4	0	1	2	3	4	2	1	1	4	2	1	1	1	
Yhtiäpitävyys %	69	100	69	100	92	85	77	69	85	92	92	69	85	92	92	92	
Lapsi yliarvioi	0	0	2	0	0	0	2	2	1	0	0	3	1	1	1	1	
Lapsi aliarvioi	4	0	2	0	1	2	1	2	1	1	1	1	1	1	0	0	

## Conclusions



- Parent's evaluation of their child's aquatic skills may not be valid
  - / Difficulties in floating skills (back and front star) and water entry by jumping
- Children were surprisingly accurate in their own evaluations
  - / Some difficulties were found because of misunderstanding pictures
  - => need still to clarify some pictures



## Conclusions

After finalizing the pictorial measurement, there will be many interesting and important possibilities:

- international research tool
- increase parents understanding about different aquatic skills
  - => motivates for aquatic activities
  - => increase water safety



## Excellent tool for teachers...

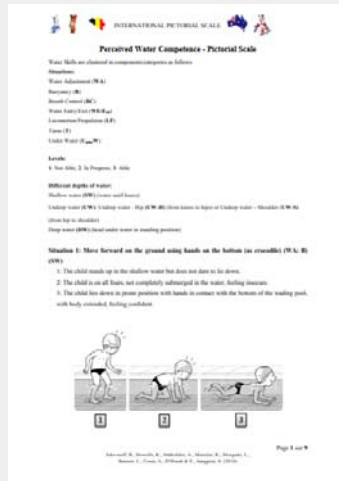
Before swimming lessons to have an idea about children's skill levels...

- / To differentiate their teaching based on children's skill levels
- / Important self-evaluation method in school context
- / Gives possibilities to release concrete information from school to parents





# We believe the potential of this measurement!



# MERCI - THANK YOU - KIITOS!

