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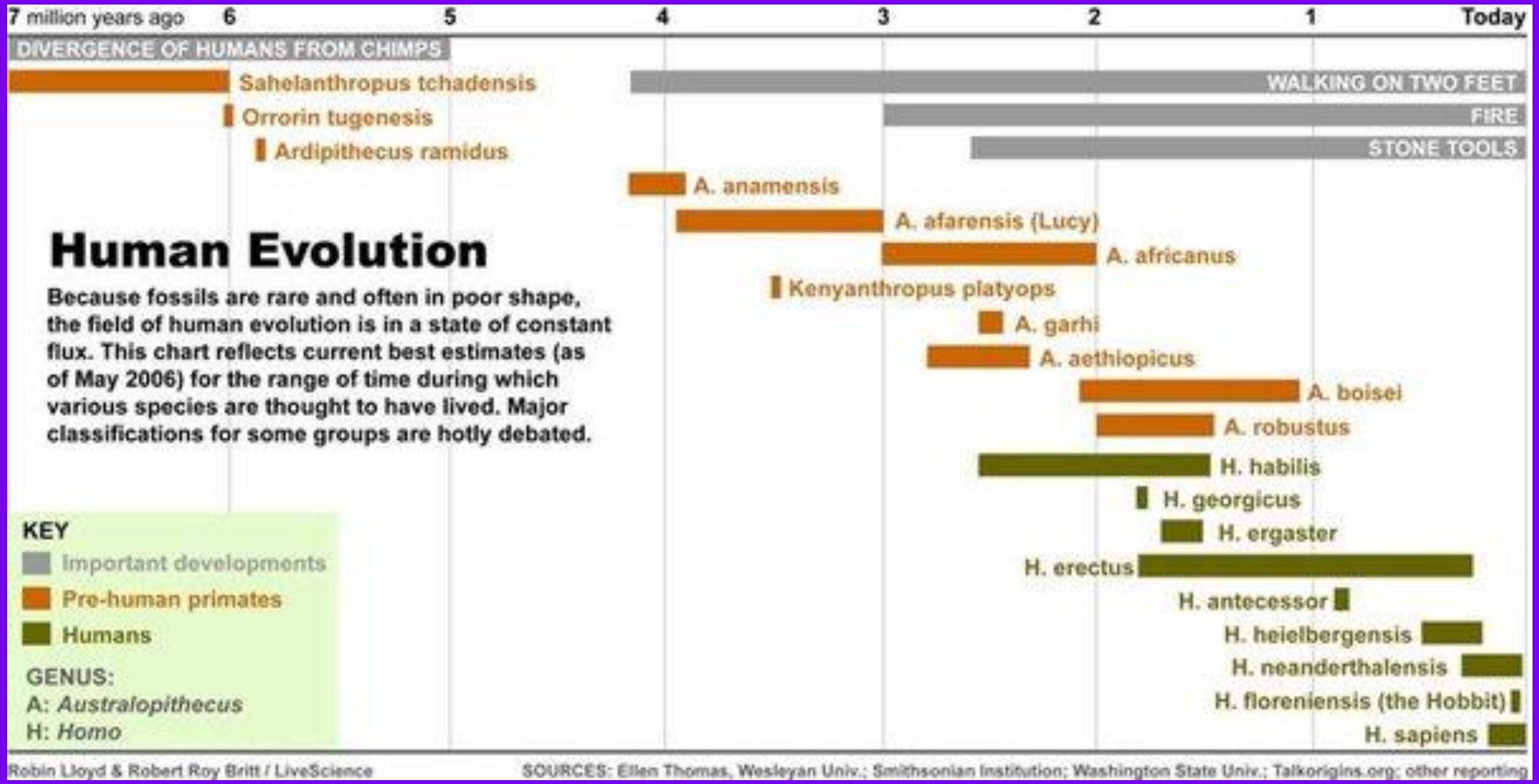
Forskning på Svømmeopplæring Før, Nå og fremover

1

Før



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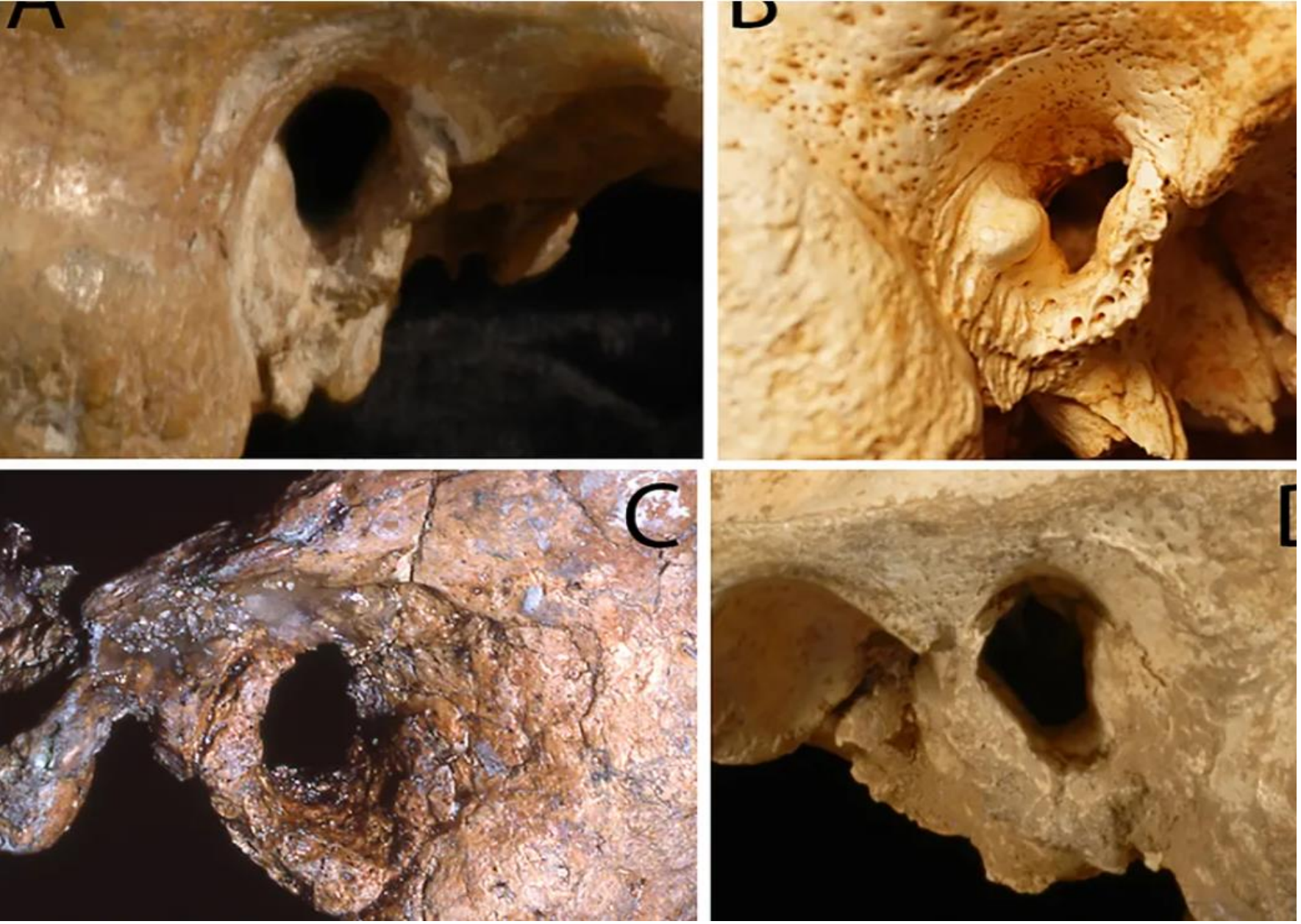

Neander-talerne dykket/svømte

(Rhys Evans and Cameron 2017)

(Getty Images: DEA / G Nimatallah).
Fra https://www.abc.net.au/news/2023-02-17/a-world-history-of-swimming/101971846 17.12.23

2

Can You Swim? Water Competence

… og hvordan lære det…

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Beskytter svømmedyktighet mot drukning?

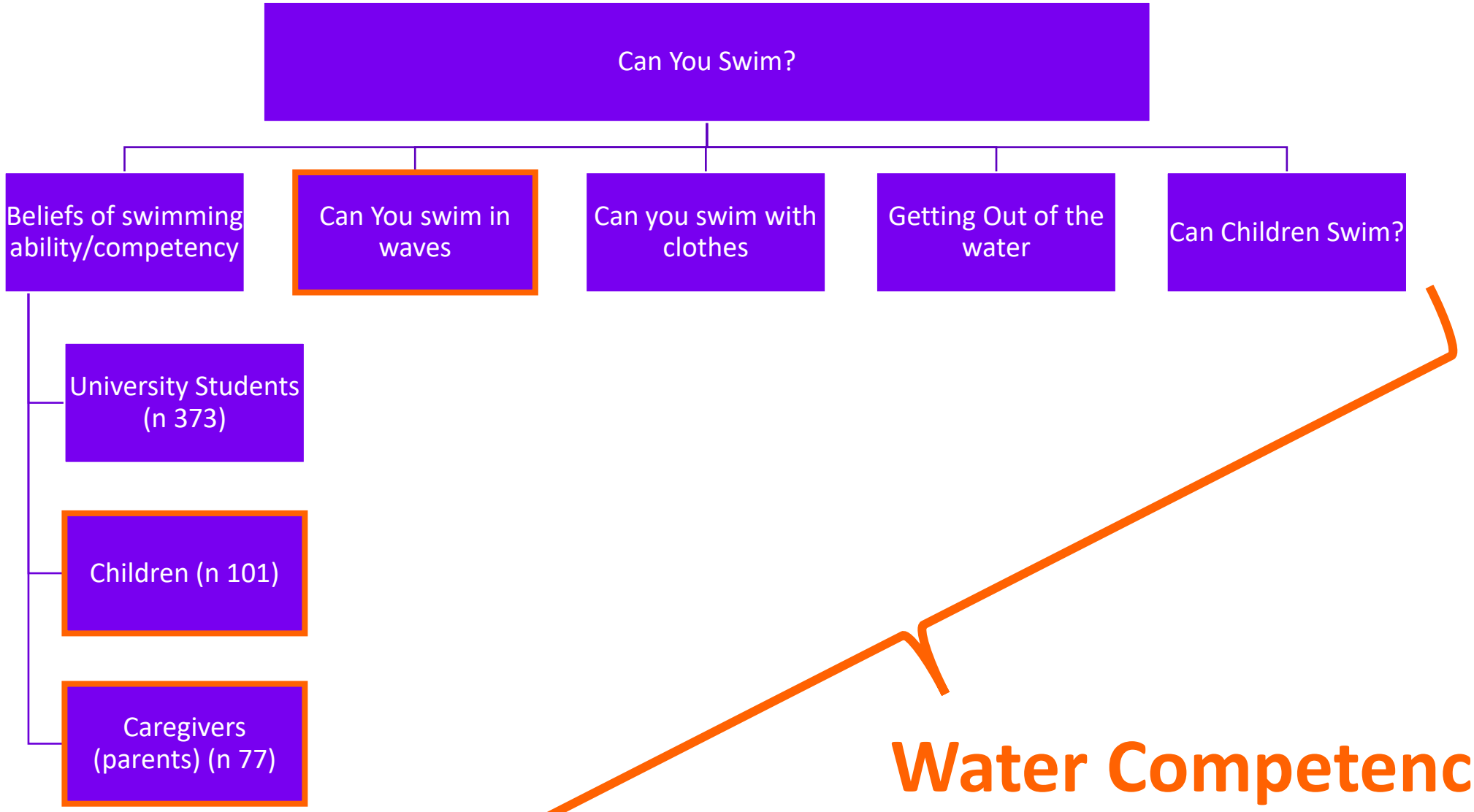
1. Inngjerding er effektivt mot drukning i noen situasjoner

2. Livredning er effektivt når ulykken skjer – LR kan ikke være over alt

3. Svømmedyktighet (WC) kan anses som en viktig forebyggende strategi – samtidig vet vi at

- mange druknede er svømmere… [paradoks]
- 1950 -1970 svømmeopplæring i skolen i Victoria, men ikke i resten av AUS, drukning ble redusert… [epidemiologisk]
- 5-19 år: Druknede: 27% hadde svømmeopplæring vs 54% av de som ikke druknet. [Effekt]

(Brenner, Saluja et al. 2003)(Brenner, Taneja et al. 2009)



JPN
AUS
NZL
NOR

Water Competence

(Stallman et al., 2008 →Stallman et al 2017, m fl.)

WATER COMPETENCIES

1	**Safe entry** a) Entry into water b) Surface and level off	9	**Clothed water competencies**
2	**Breath control** Integrated and effective breathing	10	**Open water competencies**
3	**Stationary surface competencies** a) Float front and backK b) Tread water	11	**Knowledge of local hazards**
4	**Water orientation competencies** a) Roll from front to back, back to front b) Turn, L & R, on Front & Back	12	**Coping with risk** a) Recognize and avoid risk b) Judgment of risk and action
5	**Swimming competencies** a) Swim on the front b) Swim on the back	13	**Assess personal competency**
6	**Underwater competencies** a) Surface dive b) Swim underwater	14	**Recognize/assist a drowning person**
7	**Safe exit**	15	**Water Safety Attitudes & values**
8	**Use of personal flotation devices (PFDs)**		

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Figur: Keith Mc Elroy

International Journal of Aquatic Research and Education, 2012, 6, 122-135

Can You Swim? An Exploration of Measuring Real and Perceived Water Competency

Kevin Moran, Robert Keig Stallman, Per-Ludvik Kjendlie, Dagmar Dahl, Jennifer D. Blitvich, Lauren A. Petrass, G. Keith McElroy, Toshiaki Goya, Keisuke Teramoto, Atsunori Matsui, and Shuji Shimongata

Table 3 Comparisons of Estimated and Actual Water Competencies Using Spearman Rank Correlations

	Swim Estimate	Float Estimate	Backstroke Estimate	Dive Entry Estimate	Under-Water Swim Estimate	Surface Dive Estimate
Swim	0.369*					
Float		0.583*				
Backstroke			–.191*			
Dive entry				–.092		
Underwater swim					–.134	
Surface dive						0.059

* Correlation is significant at the 0.01 level (2-tailed)

EXPLORING BELIEFS ABOUT SWIMMING AMONG CHILDREN AND CAREGIVERS: A QUALITATIVE ANALYSIS

Per-Ludvik Kjendlie[1,2], Tommy Pedersen[4], Trine Thoresen[5], Trond Setlo[4], Robert Keig Stallman[2,6,7]

[1]Norwegian Police Academy, Stavern; [2]Norwegian School of Sport Science;
[4]Sandefjord Community;[5]Vestfold University College; [6]Norwegian Lifesaving Society; [7]Tanzanian Lifesaving Society

WORLD CONFERENCE ON DROWNING PREVENTION POTSDAM, GERMANY, OCT. 2013

analyse av….

1. **Hva betyr det at en person ” kan svømme”?**

_____

_____

24. Hva er forskjellen på hvor farlig det er å svømme ute i bølger i forhold til inne i et basseng?

_____

_____

_____

_____

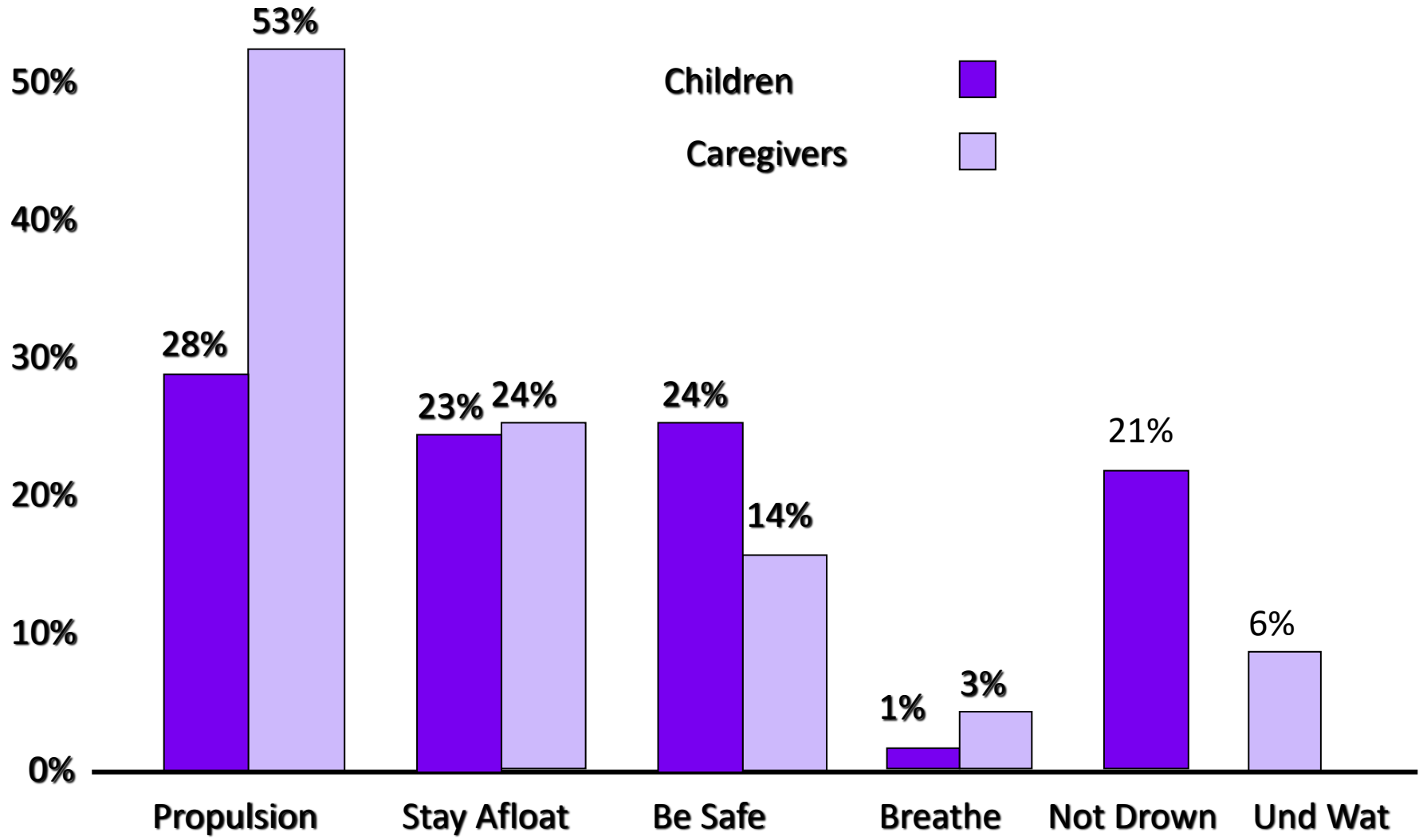


Fig. How Children and Caregivers Describe Swimming

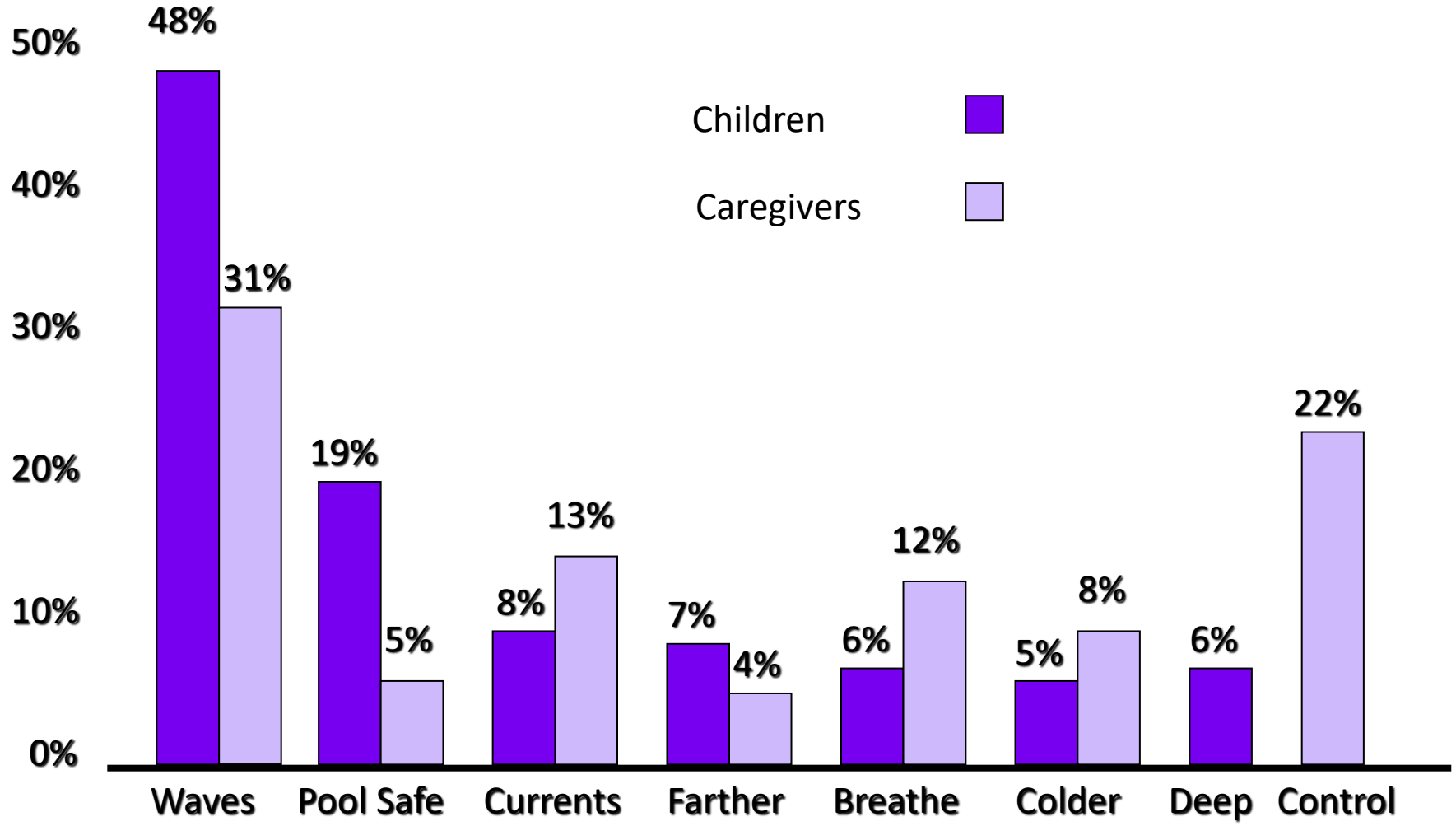


Fig. 6 How Children and Caregivers Describe Relative Risk

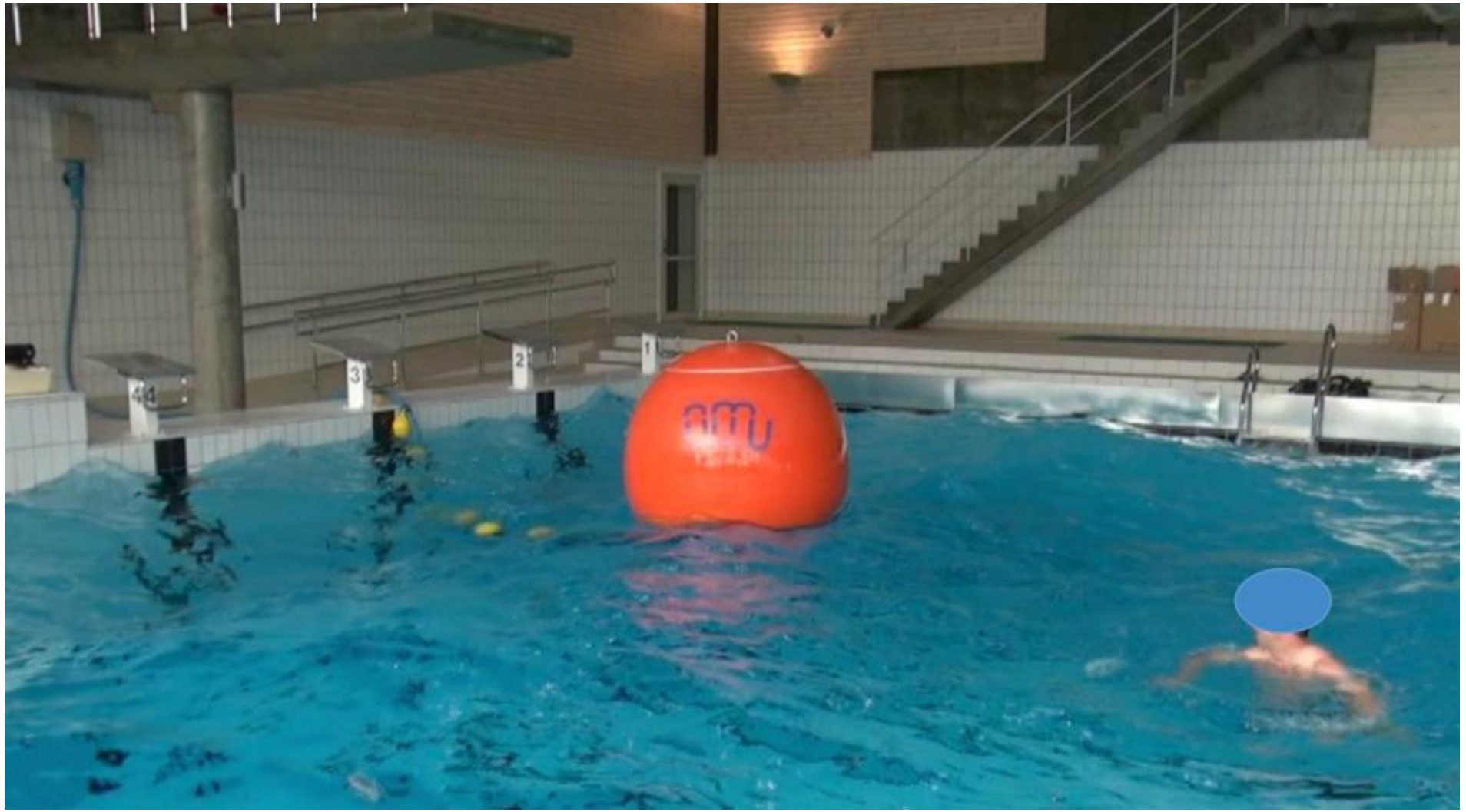
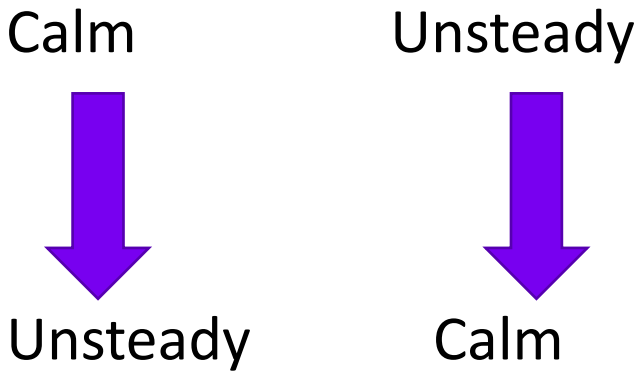


Foto: Kjendlie, PL

Study of Children´s skills in rough water

- AIM : to investigate the performance and skill differences when swimming in unsteady compared to calm water
- N= 66, aged 11 years. Randomized to:



200m time trial

Floating skills in Unsteady Water

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Entry skills in Unsteady Water

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i Sørøst-Norge

Can You Swim in Waves?

- 11 year olds who completed both calm and unsteady water had a 8% performance decrement in unsteady water

- of the 80% who could swim 200m, ¼ could not swim 200m in unsteady conditions

- Entry skills had a 16-21% decrement and floating skills a 24% performance decrement in unsteady water

Kjendlie, P. L., Pedersen, T., Thoresen, T., Setlo, T., Moran, K., & Stallman, R. K. (2013). Can You Swim in Waves? Children's Swimming, Floating, and Entry Skills in Calm and Simulated Unsteady Water Conditions. International Journal of Aquatic Research & Education, 7, 301-313.

Can You Swim in Waves?

We concluded that 11-year- olds should not be expected to reproduce swimming skills they have performed in calm water with the same proficiency in unsteady conditions during an emergency

Kjendlie, P. L., Pedersen, T., Thoresen, T., Setlo, T., Moran, K., & Stallman, R. K. (2013). Can You Swim in Waves? Children's Swimming, Floating, and Entry Skills in Calm and Simulated Unsteady Water Conditions. International Journal of Aquatic Research & Education, 7, 301-313

3

Forskning på Hjelpemidler i svømmeopplæring

Universitetet i Sørøst-Norge

Flytemiddelprosjektet

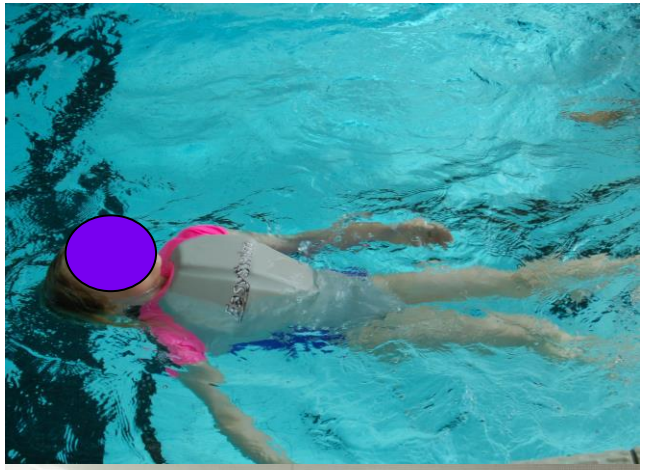
Bilder fra www.klubben.no (4), privat, og Redningsselskapet

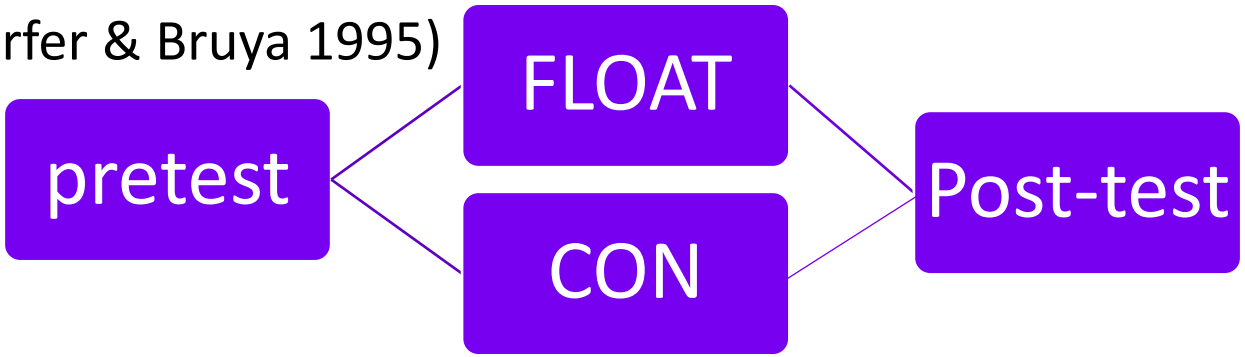
Aims

The purpose of this study was to investigate the effect of wearing a flotation suit on the floating gliding and swimming abilities of children in a learn-to-swim program, and to test the hypothesis that flotation aids slows learning of independent floating skills.

Metode

- NIH Svømmeskole: 16 kurs med i studiet, ca 300 barn
- 8 grupper på dypet / 8 grupper gunnt vann
- Matchet på instruktør / tid / dag
- kontroll vs eksperimentell gruppe
- Enkelt-blindet videoobservasjon
- ARA test (Langendorfer & Bruya 1995)

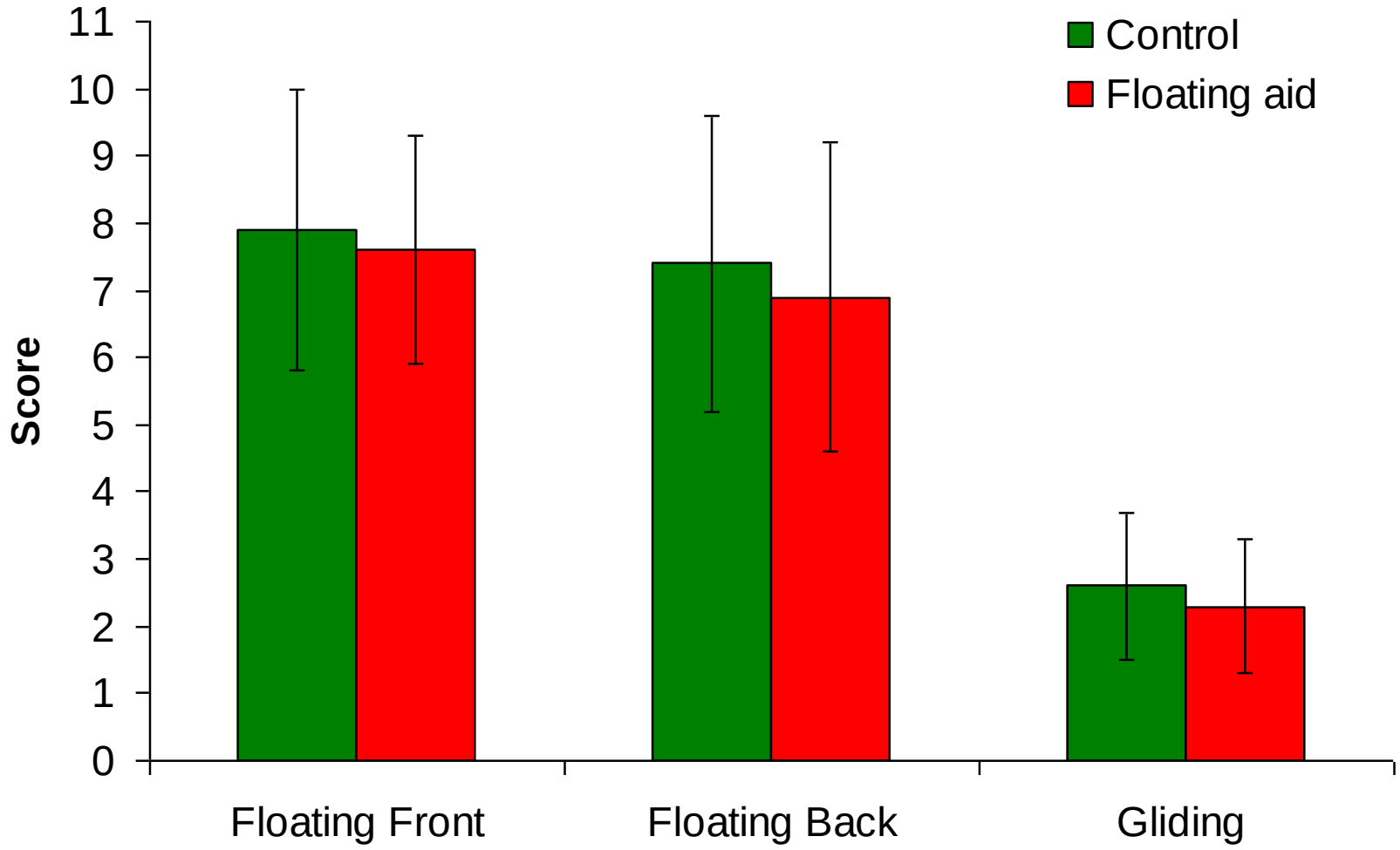




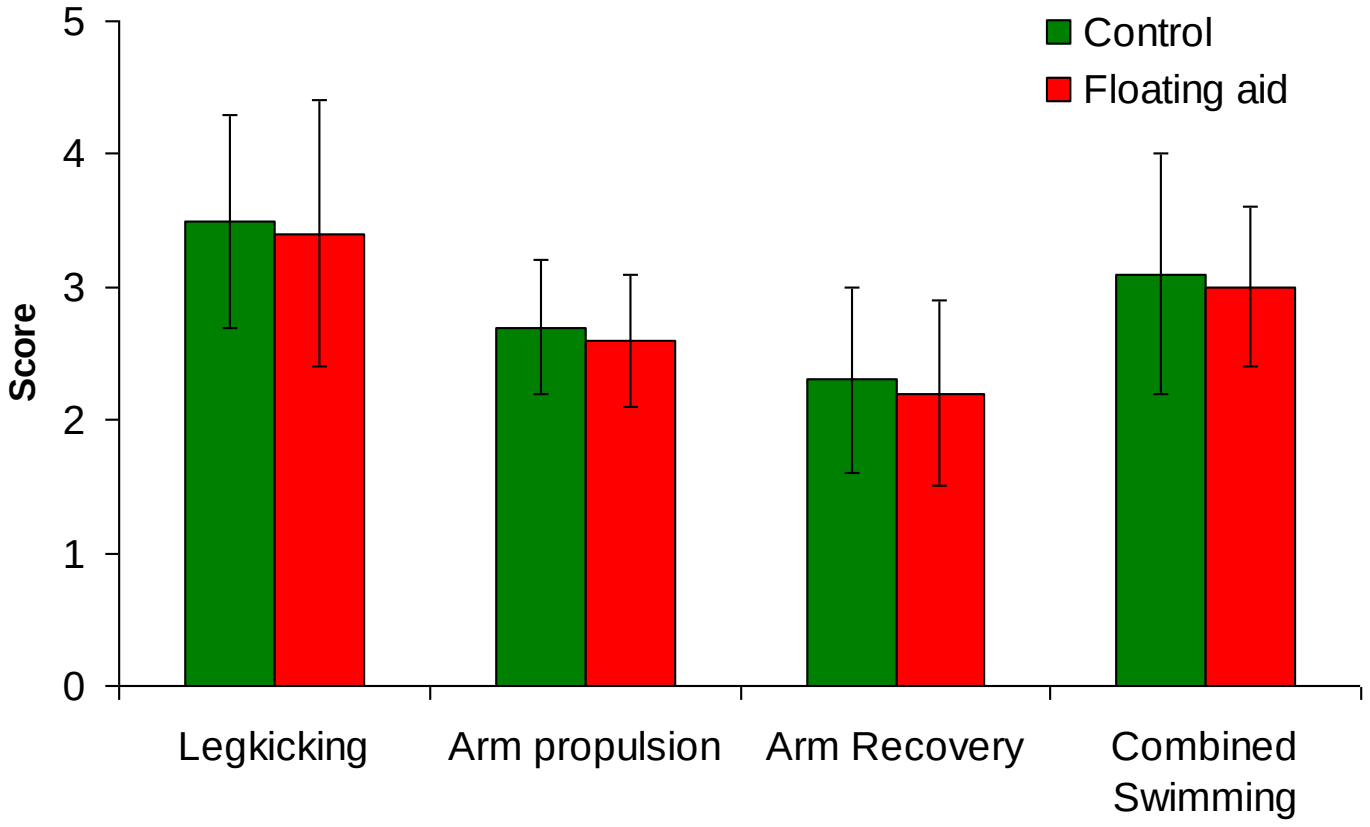
testdag 60min x 10 uker testdag

Forskjellene i grupper etter post-test

[obs: skala på gli er 1-3]



Viser forskjellene mellom grupper etter post test



Conclusions

The presented data, using the combined method of teaching with and without flotation aids, can not support the hypothesis that flotation aids slows the development of flotation skills. Nor does it seem to enhance skill development of floating or gliding.

International Journal of Aquatic Research and Education, 2012, 6, 149-155

Movement Patterns in Free Water Play After Swimming Lessons With Flotation Aids

Per-Ludvik Kjendlie and Marcel Mendritzki

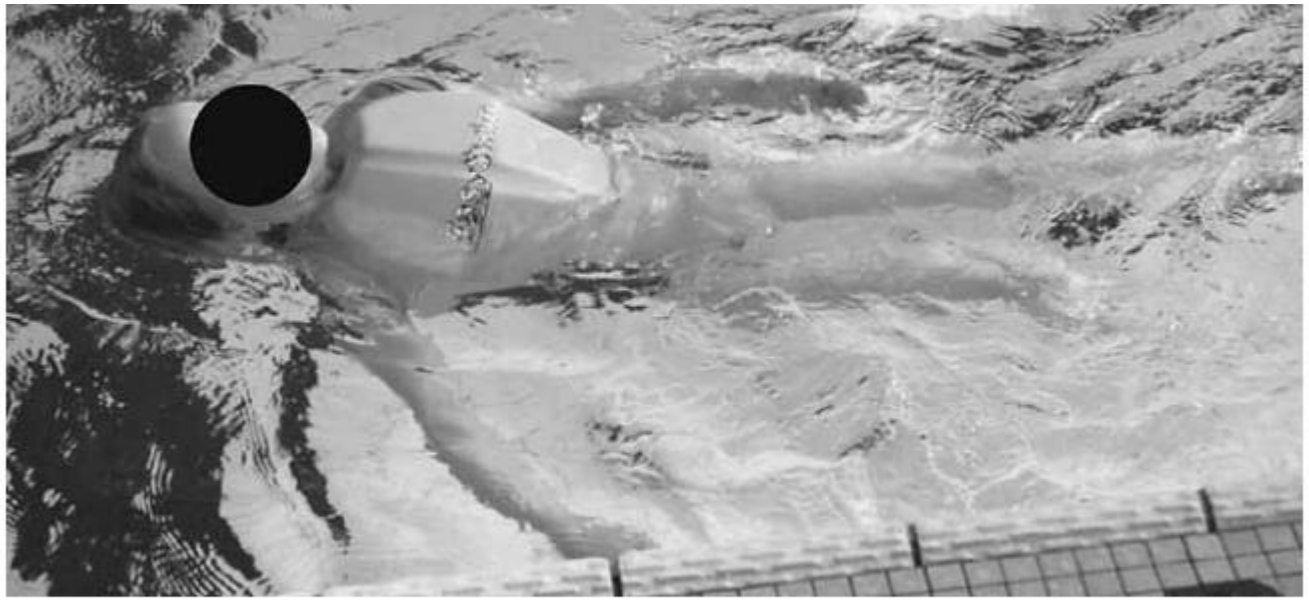


Figure 1— The flotation vest used by the flotation aid group in this study.

Table 1 Results of Observation of Movement and Actions During 10 min Free Play

Movement Category	FLOAT	CON	t-test
Distance in water	17.1 ± 5.0m	14.9 ± 7.0m	p = 0.47
Distance land	19.9 ± 12m	14.8 ± 9.1m	p = 0.28
Propulsion (score)	4.1 ± 0.8	4.2 ± 0.9	p = 0.48
Breathing and Surface Diving (score)	4.5 ± 2.1	5.6 ± 1.0	p = 0.25
Number of surface dives	2.4 ±± 1.6	5.8 ± 3.3	p = 0.006
Water Entry Skills	6.1 ± 4.7	6.8 ± 2.4	p = 0.38
Number of jumps	3.0 ± 2.9	4.5 ± 3.2	p = 0.25
Wish for flotation toys	36%	0%	p = 0.03

FLOAT and CON is the intervention (flotation aid) and control groups, respectively.

(Kjendlie and Mendritzki 2012)

Thank you! – Flytemiddelprosjektet - the team

- Robert Stallman – my mentor
- Dagmar Dahl, Cecilie Caspersen, Ingvild Midtun, Sabrina Lamprecht and Marcel Mendritzki for data collection and analysis
- NIH Svømmeskole and the Instructors
- Norwegian Swimming Federation
- Nimtech a/s – supplying flotation suits, ”Easy Swim”.
- Children and parents.

4

Forskning Fremover

WATER COMPETENCIES

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Fremtidens forskning på drukningsforebygging = Missions (/månelanding/)

1. **Teknologisk overvåkning og varsling**: Forskning på teknologi som kan oppdage og varsle om en drukningsulykke i sanntid (og redningsdroner)
2. **Livredningsteknikker og førstehjelp**: Forskning på nye og mer effektive livredningsteknikker og førstehjelpsprosedyrer ved drukning
3. **Svømme- og vannsikkerhetsopplæring**: Undersøke effektive metoder for å lære folk, spesielt barn, om vannkompetanse og svømmeferdigheter
4. **Design av sikrere vannmiljøer**: Studier på hvordan man kan gjøre vannmiljøer sikrere – og designe for riktig adferd
5. **Risikovurdering og -håndtering**: Forskning på hvordan man best kan identifisere og håndtere risikoer knyttet til vannaktiviteter
6. **Offentlig bevissthet og utdanning**: Studier på effektive kampanjer og strategier for å øke offentlig bevissthet om drukningsforebygging
7. **Datainnsamling og -analyse**: Innsamling og analyse av data om drukningsulykker kan hjelpe forskere med å forstå mønstre og sikre rette forebyggende tiltak
8. **Epidemiologiske** studier for å forstå underliggende mekanismer for hvordan drukning oppstår og kan forebygges
9. **Implementeringsforskning** og impact (effekt) studier

5

Referanser, kilder

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