

International Journal of Aquatic Research and Education

Volume 11
Number 2 *The Lifesaving Foundation
Conference 2018 Booklet of Abstracts*

Article 12

10-22-2018

Effective Water Competence Training for School-Aged Children: Teaching Strategies for Skills, Knowledge, and Attitudes


Kristine De Martelaer Ph.D.
Vrije Universiteit (Belgium), Universiteit Utrecht (Netherlands)

E. D'Hondt
Vrije Universiteit (Belgium); Ghent Universiteit (Belgium)

J. Van Driel
Universiteit Utrecht (Netherlands)

F. Bardid
Ghent Universiteit (Belgium)

Joost J.L.M. Bierens MD, Ph.D., Professor
Koninklijke Maatschappij tot Redding van Drenkelingen (Netherlands), Vrije Universiteit (Belgium)
Follow this and additional works at: <https://scholarworks.bgsu.edu/ijare>

 Part of the [Exercise Physiology Commons](#), [Exercise Science Commons](#), [Health and Physical Education Commons](#), [Leisure Studies Commons](#), [Other Rehabilitation and Therapy Commons](#), [Outdoor Education Commons](#), [Recreation Business Commons](#), [Sports Management Commons](#), [Sports Sciences Commons](#), [Sports Studies Commons](#), and the [Tourism and Travel Commons](#)

Recommended Citation

De Martelaer, Kristine Ph.D.; D'Hondt, E.; Van Driel, J.; Bardid, F.; and Bierens, Joost J.L.M. MD, Ph.D., Professor (2018) "Effective Water Competence Training for School-Aged Children: Teaching Strategies for Skills, Knowledge, and Attitudes," *International Journal of Aquatic Research and Education*: Vol. 11 : No. 2 , Article 12.

DOI: 10.25035/ijare.11.02.12

Available at: <https://scholarworks.bgsu.edu/ijare/vol11/iss2/12>

This Abstract is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in International Journal of Aquatic Research and Education by an authorized editor of ScholarWorks@BGSU.

Effective Water Competence Training for School-Aged Children:

Teaching Strategies for Skills, Knowledge, and Attitudes

De Martelaer, K.^{1,2}, D'Hondt, E.^{1,3}, Van Driel, J.², Bardid, F.^{3,4} & Bierens, J.¹

¹ Vrije Universiteit Brussel, Belgium, ² University Utrecht, Netherlands, ³ Ghent University, Belgium, ⁴

University of Strathclyde, Scotland

kdmartel@vub.ac.be

In drowning prevention four categories of strategies are distinguished: (a) education and information, (b) acquisition of survival skills, (c) denial of access, barriers and regulations, (d) provision of supervision (ILS, 2015). In a recent review, Stallman et al. (2017) describe what physical, cognitive and affective competencies make a person water competent / safe and thus less susceptible to the risk of drowning. They use the following definition of water competence as a starting point: “*sum of all personal aquatic movements that help prevent drowning, as well as the associated water safety knowledge, attitudes, and behaviors that facilitate safety in, on, and around water*” (Moran, 2013).

The purpose of this contribution was to analyze the effectiveness of water competence training for elementary and secondary school children in the local community in general and in a school context in particular. We realized that we needed to understand the capacities and interests of children and adolescents receiving and processing information differently according to their maturity.

While elementary school children have a relatively low drowning rate, adolescents show a shift in aquatic participation location from around the home to open water places such as rivers, lakes, and beaches (Franklin et al., 2010; WHO, 2014). The transition from elementary to secondary school can be considered as a critical point in time to provide drowning prevention education. Moreover, it is an important phase in children’s life because of the increasing role of peers to stimulate safe or dangerous behavior in, on, and around water.

I provided an overview of teaching approaches using didactical tools in (a) classroom context, (b) swimming pool (c) open water and (d) as homework. International good practices and research data, as described in the literature (for example the reviews of Crawford *et al.*, 2014; Leavy *et al.*, 2016) help us to figure out different learning and teaching strategies for an integrated approach of skills, knowledge, and attitude in water competence training. We used the Teaching Spectrum of Mosston & Ashworth (2008) as our framework. The alignment of a water competence program, translated in (a) program objectives, (b) tasks and activities (c) teacher-learner interaction, (d) medium used and (e) outcomes was crucial. Here we distinguished different levels of decision-making concerning individual and environmental aspects in the world of daily aquatic reality. Information from other safety domains such as traffic education also were taken into account.

References

- Crawford, G., Leavy, J., Portsmouth, L., Jancey, J., Leaversuch, F., Nimmo, L., Reid-Dornbusch, L., & Hills, E. (2014). Development of a systematic review of public health interventions to prevent children drowning. *Open Journal of Preventive Medicine*, 4, 100-106. <http://dx.doi.org/10.4236/ojpm.2014.43014>
- Franklin, R.C., Scarr, J.P., & Pearn, J.H. (2010). Reducing drowning deaths: The continued challenge of immersion fatalities in Australia. *The Medical Journal of Australia*, 192(3), 123-126.
- International Life Saving Federation (ILSF) (2015). *Total Life Saving Service Plan*. <https://www.ilsf.org/sites/ilsf.org/files/filefield/01-01-ABS%20-%20Peter%20George%20-%20Total%20Life%20Saving%20Service%20Plan.pdf>
- Leavy, J.E., Crawford, G., Leaversuch, F. *et al.* (2016). A review of drowning prevention interventions for children and young people in high, low, and middle income countries. *Journal of Community Health*, 41(2), 424-441 doi:10.1007/s10900-015-0105-2
- Moran, K. (2013). Defining 'swim and survive' in the context of New Zealand drowning prevention strategies: A discussion paper. Auckland: WaterSafe Auckland. Available from: <http://watersafe.org.nz/educators/research-and-information/research-reference/>
- Mosston, M. & Ashworth, S. (2008). *Teaching Physical Education* (1st online ed.). San Francisco: Benjamin Cummings.
- Stallman, R.K., Moran, K., Quan, L., & Langendorfer, S. (2017). From swimming skill to water competence: Towards a more inclusive drowning prevention future, *International Journal of Aquatic Research and Education*, 10(2), Art. 3, DOI: 10.25035/ijare.10.02.03
- World Health Organisation (2014). *Global Report on Drowning: Preventing a Leading Killer*. Geneva: World Health Organisation.



Kristine De Martelaer is Professor and special chair of 'Pedagogy and Education of Physical Education' in the University of Utrecht. Her research topics are situated within sport pedagogy: fundamental movement skills of young children, competencies of PE teachers and voluntary youth coaches, didactical approaches of responsibility-based teaching, ethics in sport, water safety and basic life support (BLS).