

The acquisition of aquatic skills in preschool children: deep vs shallow water swimming lessons

¹Liliane Morgado ¹, Helena Rocha ¹, Daniel Marinho ¹, Nuno Garrido ², Aldo Costa ¹

¹University of Beira Interior, Portugal

²University of Trás-os-Montes e Alto Douro, Portugal

Introduction: There are several variables involved in the swimming teaching-learning process, most of them related to the particular characteristics of the water environment.

One of the key factors seems to be the variation of water’s depth. To our knowledge, any rigorous studies have already investigated with a controlled program how deep and shallow water may influence the development of preschooler’s aquatic skills.

Methods: Twenty-one Portuguese school-aged children (4.70 ± 0.51 yr), inexperienced in aquatic programs, participated in this study. The children were divided into two groups performing a similar aquatic program but on a different water depth: shallow water (n=10) and deep water (n=11). Each participant was evaluated twice for their aquatic readiness using an observation check list of 17 aquatic motor skills: during the first session and after six months of practice. The aquatic proficiency on each skill was compared between the groups and a stepwise discriminant analysis was conducted to predict the conditions with higher or lower aquatic competence. **Results:** Results suggested that swimming practice improved several basic aquatic skills in both groups.

Though, the results showed that shallow water group managed to acquire a higher degree of aquatic competence particularly in five basic aquatic skills ($p < 0.05$): breath control – face immersion and eye opening; horizontal buoyancy; body position at ventral gliding; body position at dorsal gliding; leg kick with breath control at ventral body position, without any flutter device. The discriminant function revealed a significant association between both groups and four included factors (aquatic skills) ($p < 0.001$). The body position at ventral gliding was the main relevant predictor ($r = 0.535$). **Conclusion:** Shallow water swimming lessons seemed to allow greater aquatic competence in preschool children after a period of 6 months of practice.

Keywords: depth, children, aquatic skills, teaching methods

¹Presenting author