Intruction

- 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

<table>
<thead>
<tr>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 elementary school-aged children of both genders (4.70 ± 0.51 yr)</td>
</tr>
</tbody>
</table>

Aquatic readiness assessment

- Pretest
- 6 weeks training period
- Post test
- Shallow water group n=10
- Deep water group n=11
- + checklist of 17 aquatic motor skills

Each one of these skills was divided into increasing levels of complexity (three, four or five levels, depending on the categorical skill) as suggested by Langendorfer and Bruy (1995).

Results

- The results demonstrated that shallow water group managed to acquire a higher degree of aquatic competence particularly in five basic aquatic skills Sk3, Sk4, Sk5 Sk6 and Sk10 (p< .05).
- The discriminant function revealed a significant association between both groups and four included factors (aquatic skills) (p< .001), accounting for 88% between group variability.
- The discriminant analysis showed that the Sk5 (body position at ventral gliding) was the main relevant predictor (r=0.535), consistent with the data reported by Costa et al. (2012).

Discussion & conclusion

Aquatic skills at the children beginner’s level should be learnt in a shallow water swimming pool. The stepwise discriminant analysis revealed a significant association between both session types and four included aquatic skills for six months of practice. The body position at ventral gliding seems to be the main significant predictor.

Deep water programs should be carefully planned to stimulate certain skills (i.e. body gliding) that seems to be differently exercised in both pool environments.

References