

Elaboration of a water familiarization testing battery adapted for young children



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INTRODUCTION

The degree of development required to learn a swimming style is not reached before the age of five to six years old (1, 2).

⇒ Before that age, it is very interesting to discover the aquatic environment to **develop specific skills** (2, 3) :

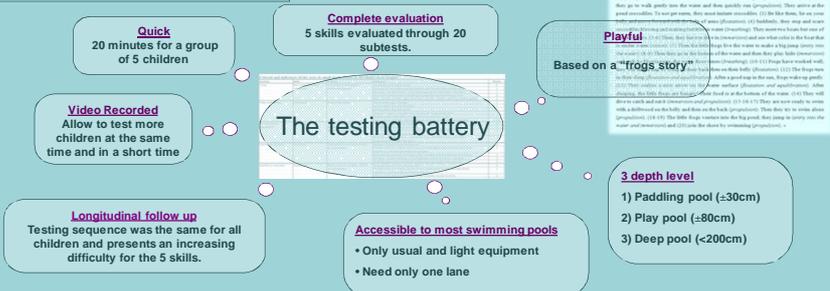
Entering into the water – Immersion – Floatation – Breathing – Propulsion



Between three to eight years old, measuring the level of these different skills should be interesting for pedagogical applications. Since 2010, we are working on such a testing battery. The aim of this paper is to present the different steps of its elaboration.

METHODS

* Initial testing battery



- o Testing battery with 20 subtests was identical for all children.
- o According to children performance, a **score** is attributed for each subtest.
- o The sum of all scores gives a total score, representing the **water familiarisation level**.

* Critical analysis permitted to change progressively and improve the initial testing battery.

RESULTS

❖ Initial version of the testing battery (2010)

Results : we observed that very well familiarized children obtained **nearly maximal scores**.

⇒ We decided to **add swimming style assessment**.

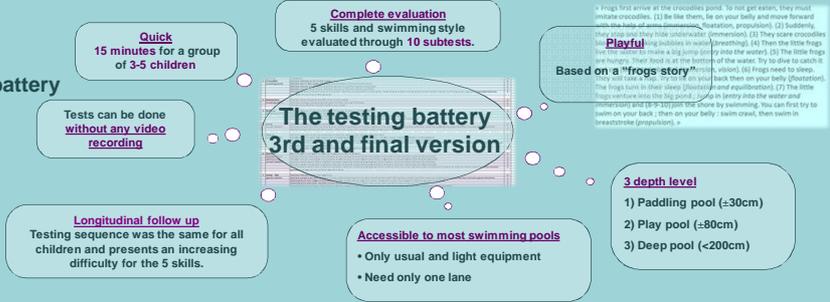
❖ 2nd version of the testing battery (2014)

Results : we have **added 3 tests of swimming style**, so the testing battery was composed of **23 items**. This second version was **too much time-consuming**. Moreover, it required **time video analysis**.

⇒ We decided to carry out a « **biplot analysis** » in order to **simplify the testing battery**. The « **biplot analysis** » selected the **10 most relevant tests**.

❖ 3rd version of the testing battery (2015)

Results : Simplifying the testing battery was successful and the tests execution time was reduced to **15 minutes for 3-5 children**. This last version is **better adapted to the field condition** as it is **short** and it could be done **without any video recording**.



CONCLUSION

- o The purpose of our studies was to **make evolve a water familiarization testing battery** in order to have one which is **successful** and also as adapted to the **field reality** as possible.
- o **Experts are now analysing this final version of battery to make it validated...**

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