Development of an Aquatic Skills Assessment Tool for Young Children in the CEReKi Aquatic Circuit

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INTRODUCTION

Valid tools developed to assess aquatic skills in children from 3 to 8 (Mertens et al. 2022; Santos-Garcia et al. 2022)

They can only be used with small groups of children at the same time

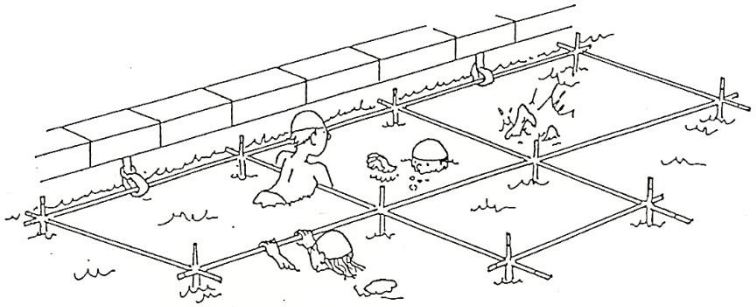
Difficult to envisage their use in a school context

The aquatic circuit developed by the CEReKi has the potential to accommodate a large number of children at the same time (Mornard et al. 2015)

Could it be used to assess children's aquatic skills ?

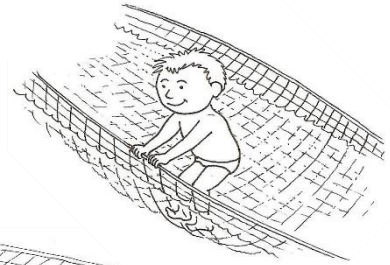
CEReKi Aquatic Circuit

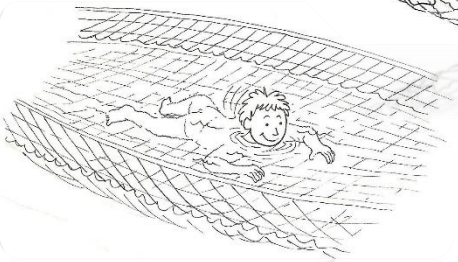
CEREKI AQUATIC CIRCUIT



« SHARK » CAGE

NET





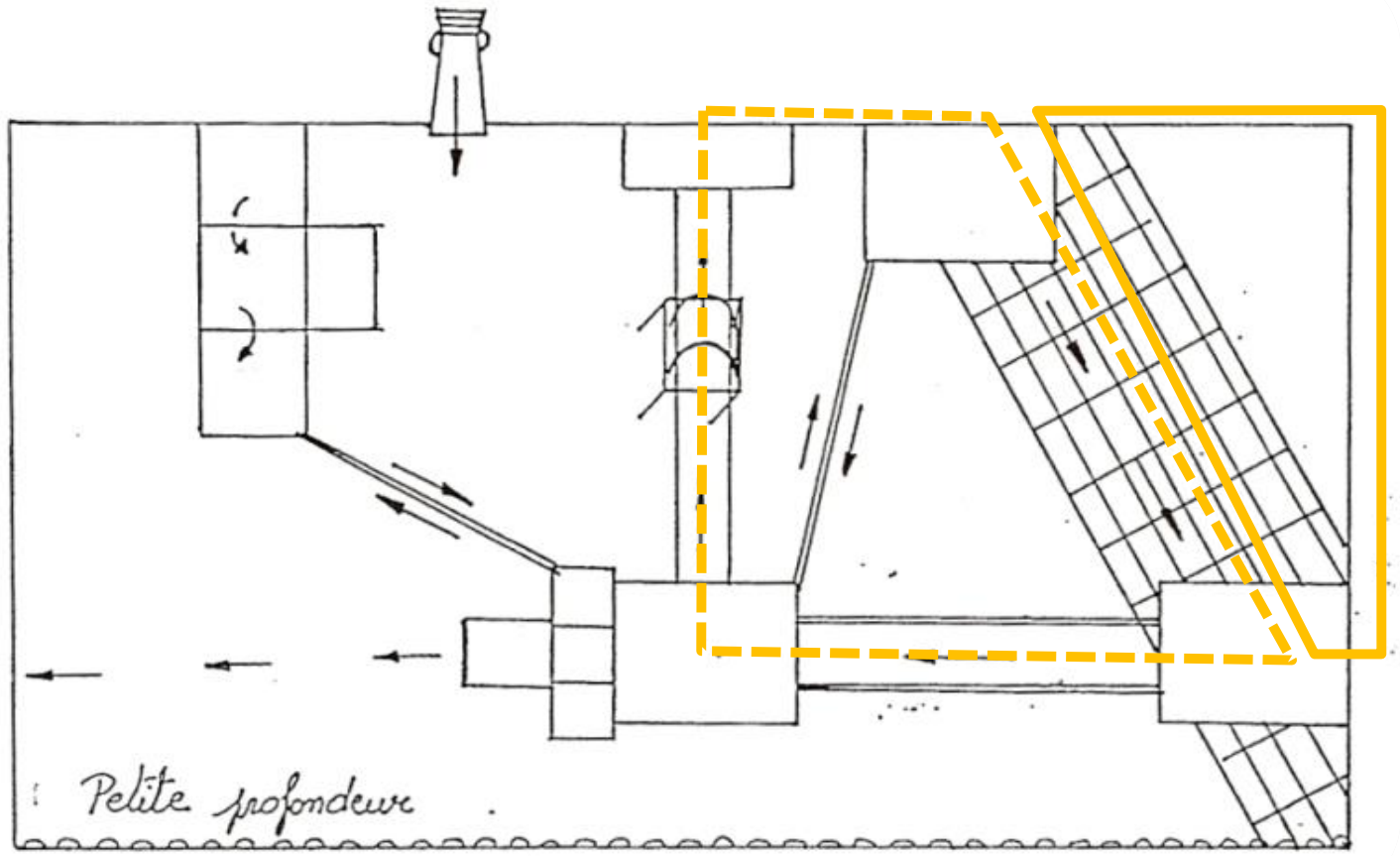
SLIDES

POLES

FLOATING MATS

Children circulation into CEReKi circuit

- Different zones according to children level



Level of aquatic skills

Beginners

2,5-4 YO

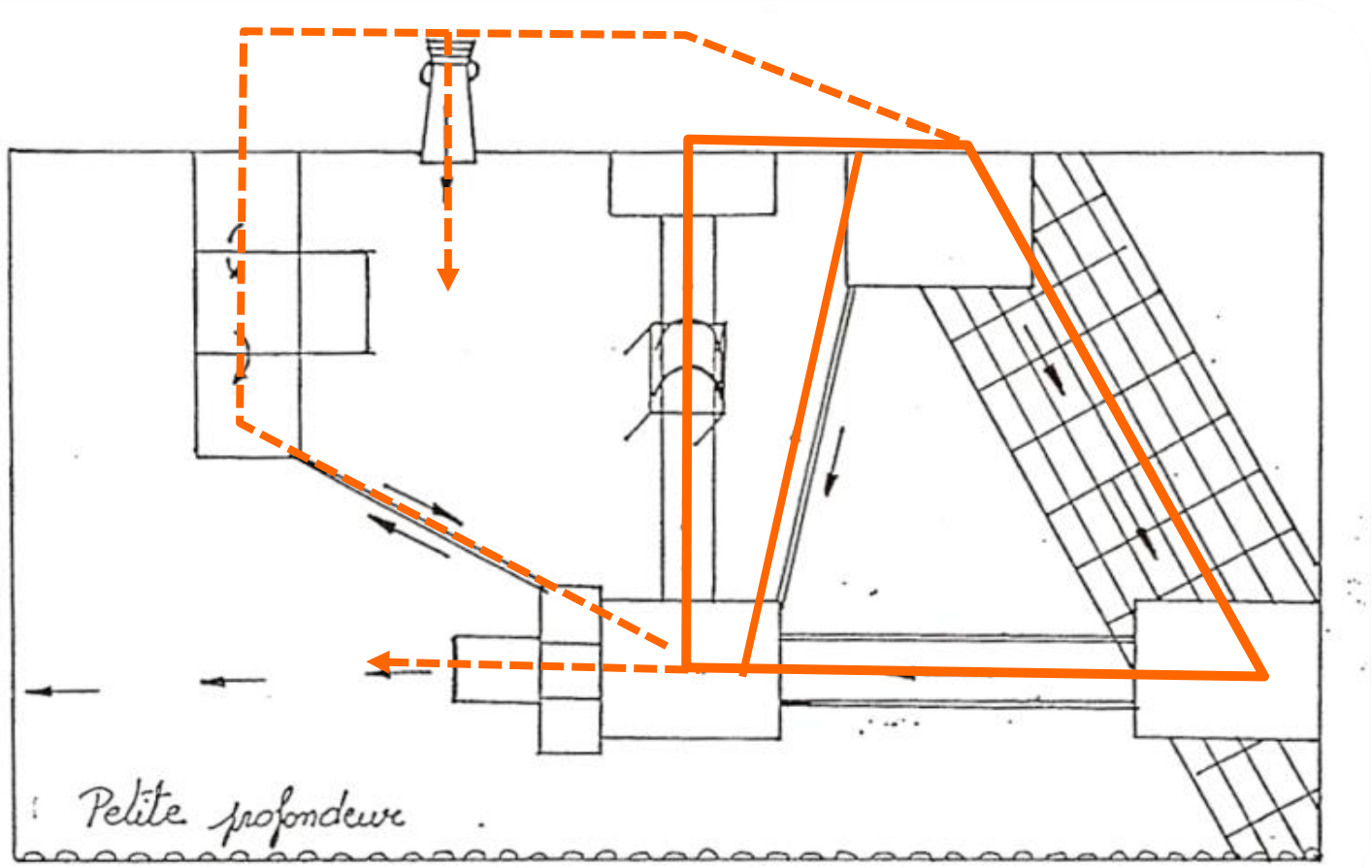
- Entry in the water
- Immersion
- Balance
- Horizontal positon

Main circulation

opportunity for development

Children circulation into CEReKi circuit

- Different zones according to children level



Level of aquatic skills

Intermediate

4-6 YO

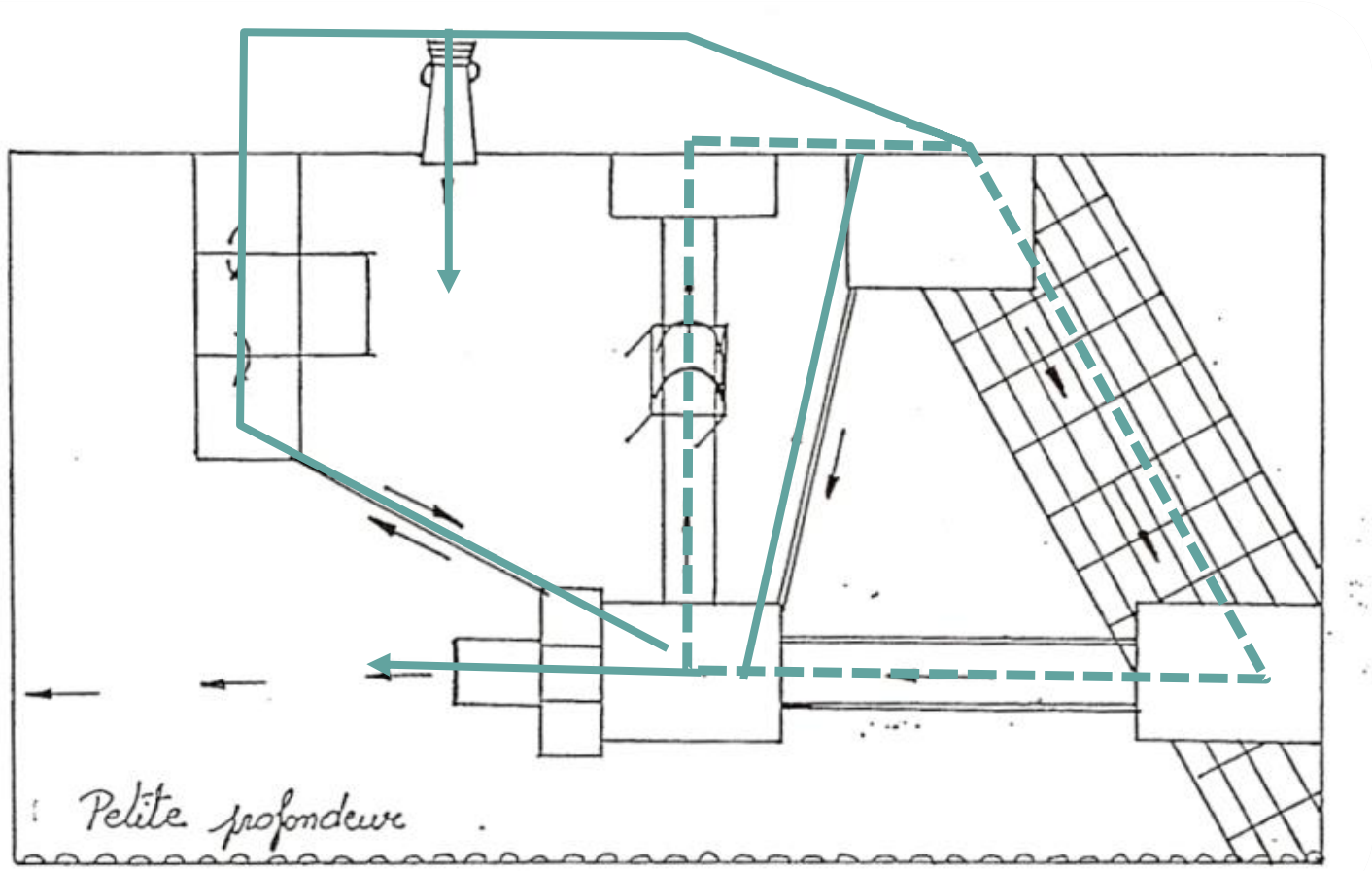
- Entry in the water
- Immersion
- Balance
- Horizontal positon
- Breathing
- Propulsion
- Entry by slide

Main circulation

opportunity for development

Children circulation into CEReKi circuit

- Different zones according to children level



Level of aquatic skills

Advanced

5-7 YO

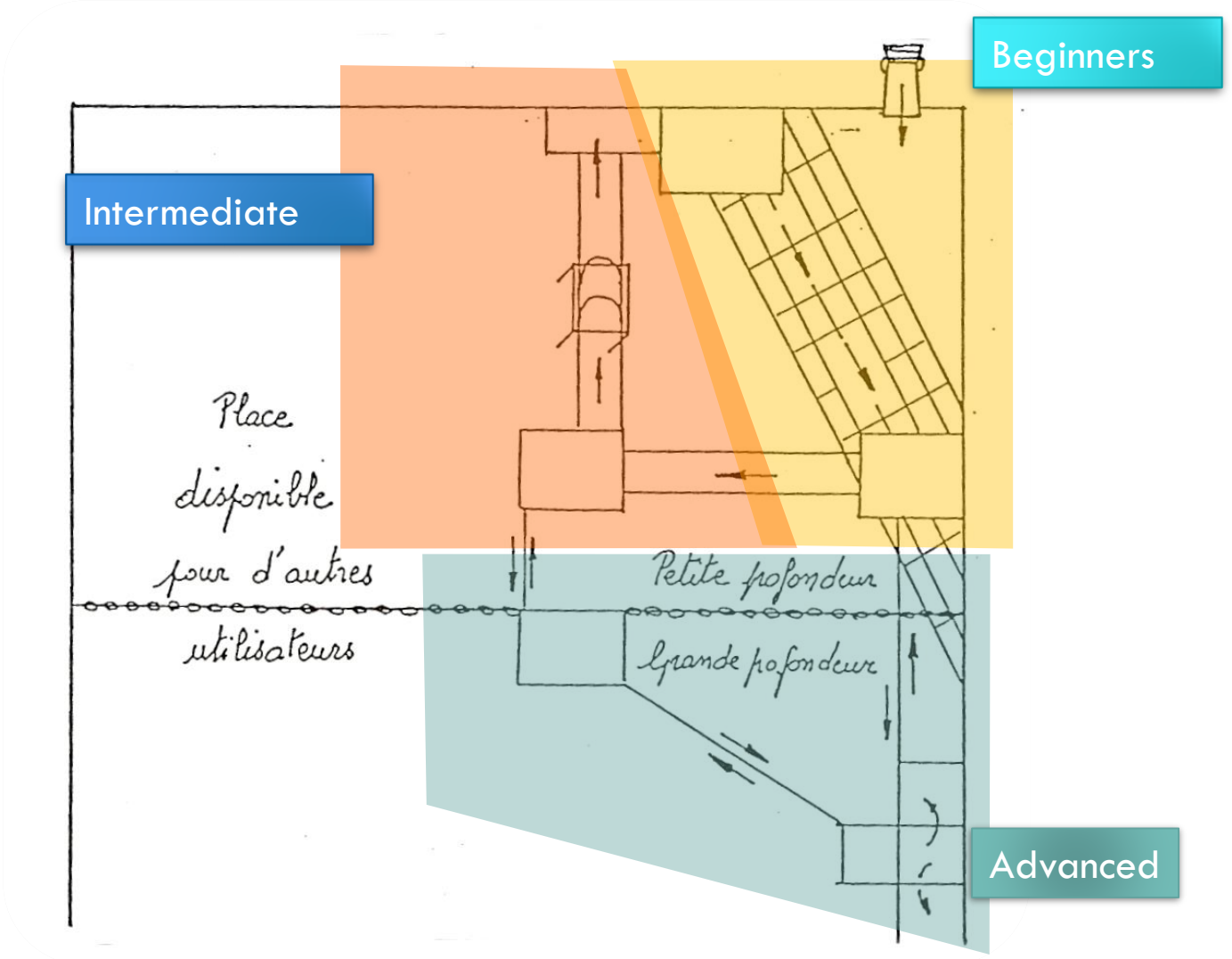
- Entry by slide/jump
- Immersion
- Balance/horizontal positon
- Breathing ++
- Propulsion ++
- Vision

Stimulating circulation

Mastered circulation

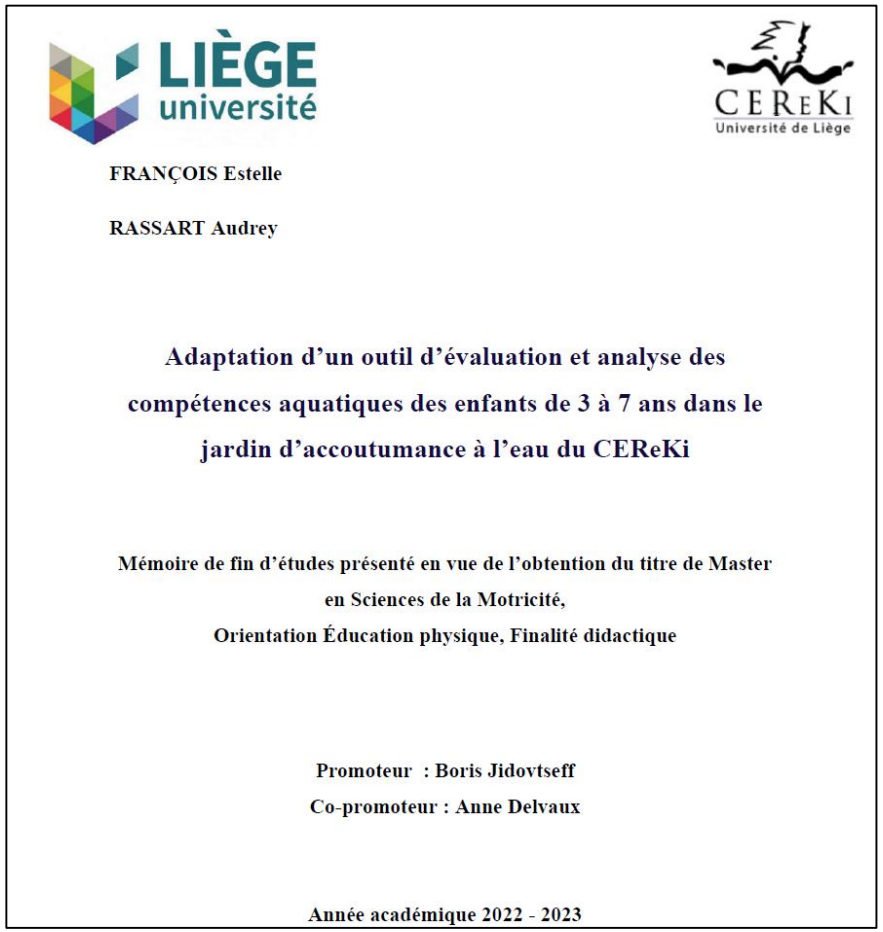
Children circulation into CEReKi circuit

- Different zones according to children level



ASSESSMENT OF WATER COMPTENCES IN CEREKI CIRCUIT

AIM = To assess 30 children in 30 minutes !!!



LIÈGE université

CEREKI Université de Liège

FRANÇOIS Estelle

RASSART Audrey

Adaptation d'un outil d'évaluation et analyse des compétences aquatiques des enfants de 3 à 7 ans dans le jardin d'accoutumance à l'eau du CEReKi

Mémoire de fin d'études présenté en vue de l'obtention du titre de Master en Sciences de la Motricité, Orientation Éducation physique, Finalité didactique

Promoteur : Boris Jidovtseff

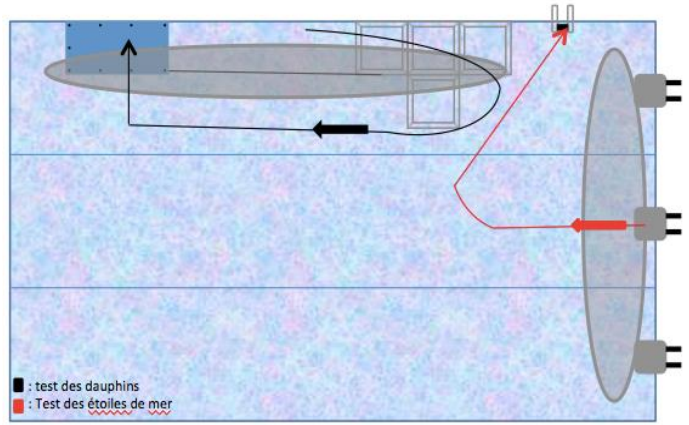
Co-promoteur : Anne Delvaux

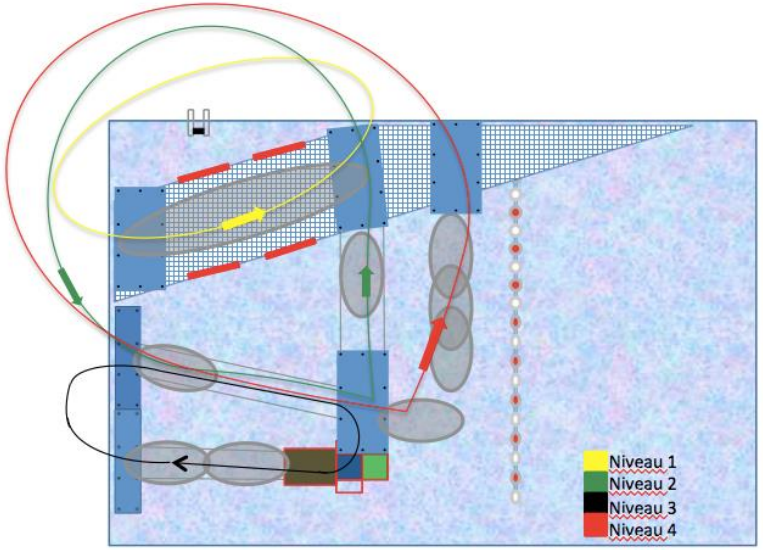
Année académique 2022 - 2023

Master Thesis

9 Waters competences

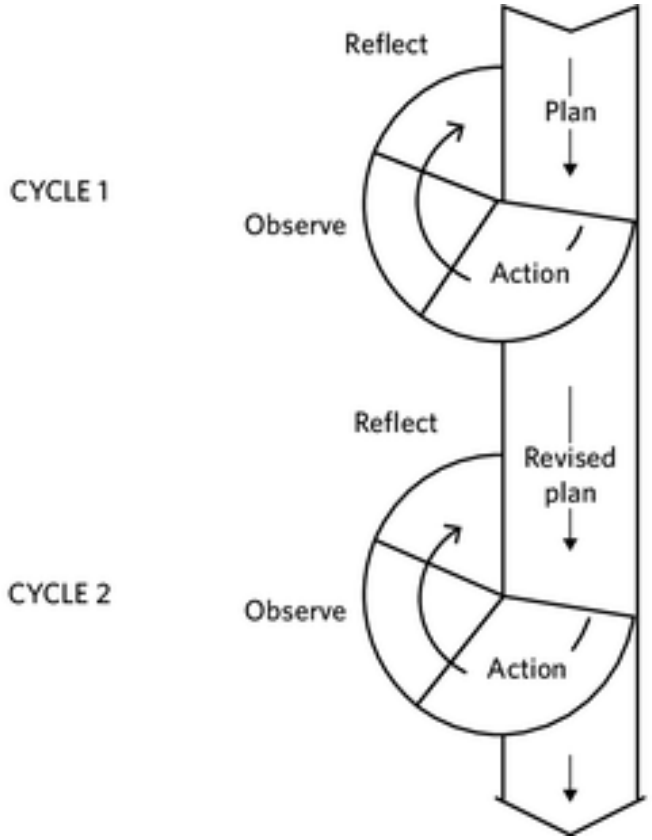
1. Entry in the water
2. Exit the water
3. Immersion
4. Buoyancy
5. Balance in the water
6. Breath control
7. Gliding
8. Propulsion
9. View



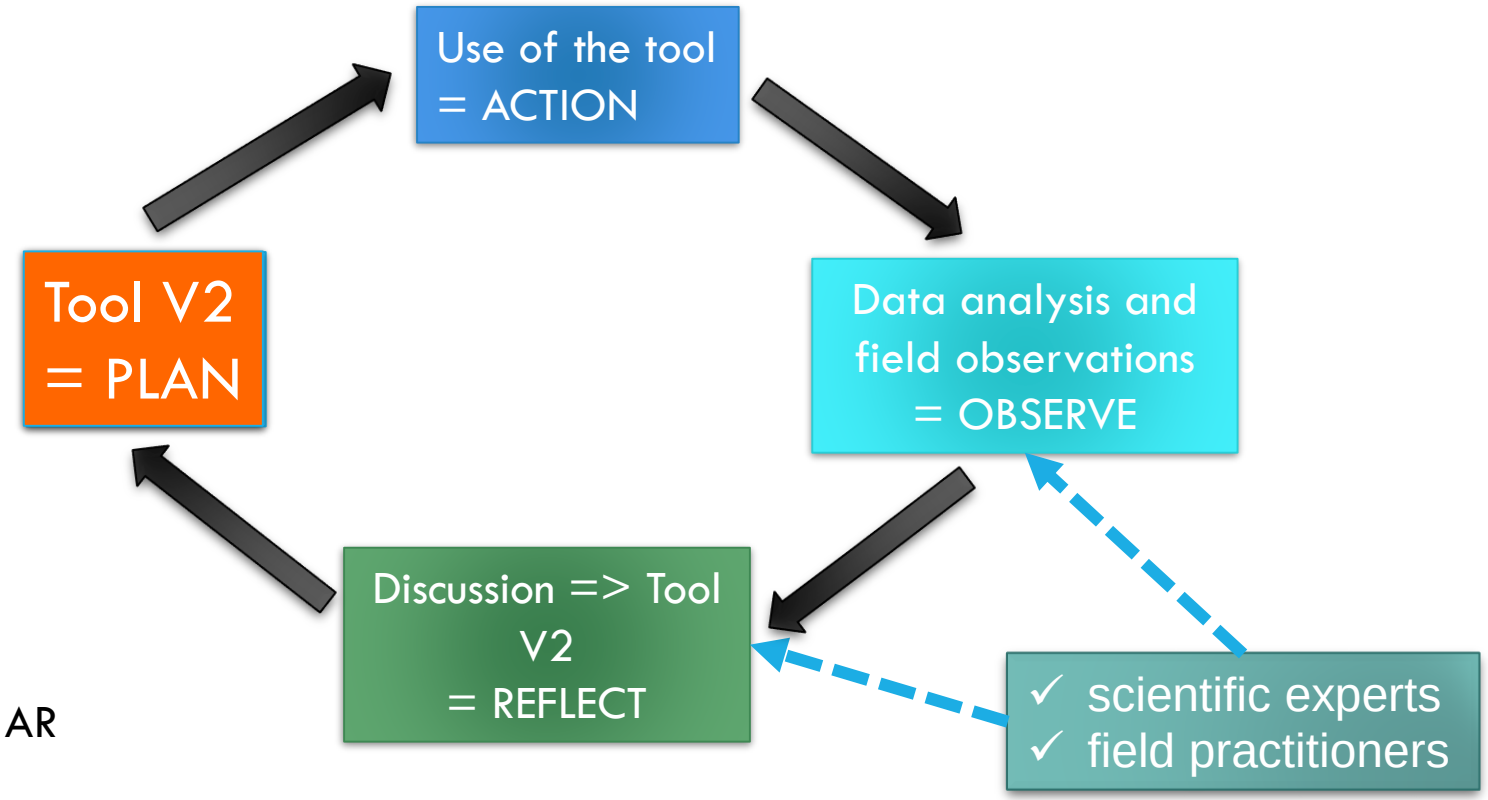


ASSESSMENT OF WATER COMPTENCES IN CEREKI CIRCUIT

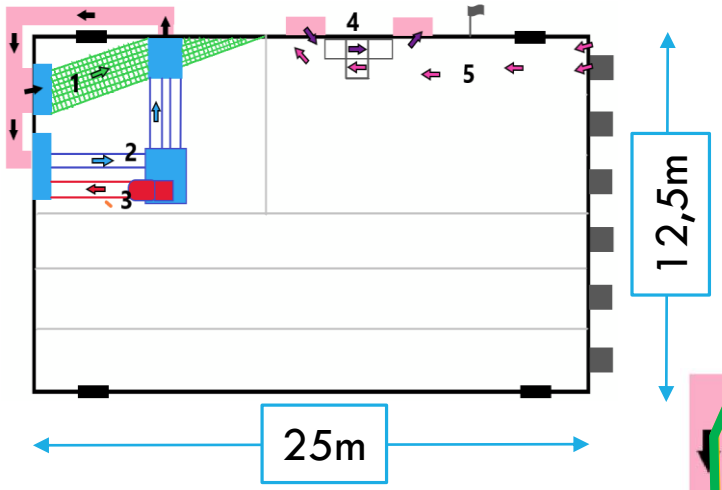
Participatory Action Research methodology



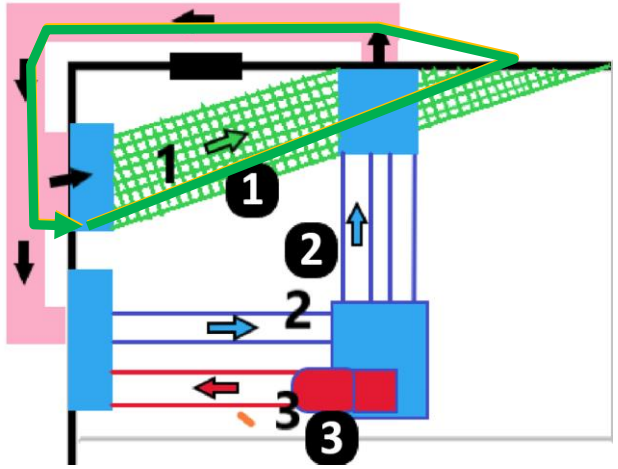
Kemmis and McTaggart's (1988) cyclical AR model, as cited in Burns (2010, p. 9)



RESULTS – FINAL VERSION OF THE TOOL

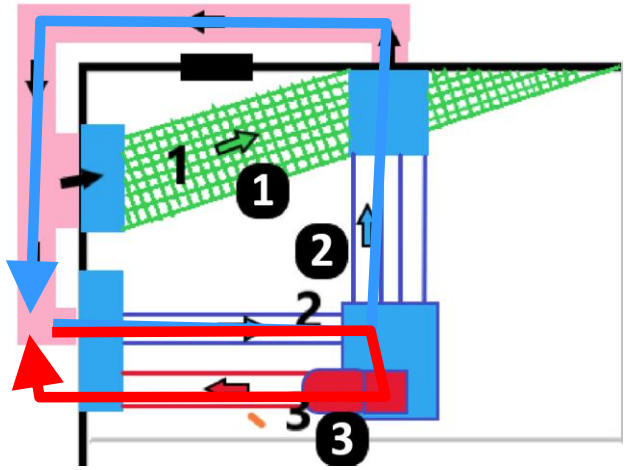


Circuit 1 (Net) **Level 1** - Crab	
1	Entry in the water on all four
2	Cross the net while holding onto the edge
3	Exit water by the net



Circuit 1 (Net) **Level 2** - Crocodile	
1	Entry in the water on all four
2	**Lie down on the stomach**
3	**Do bubbles in the water**
4	Exit water by the net

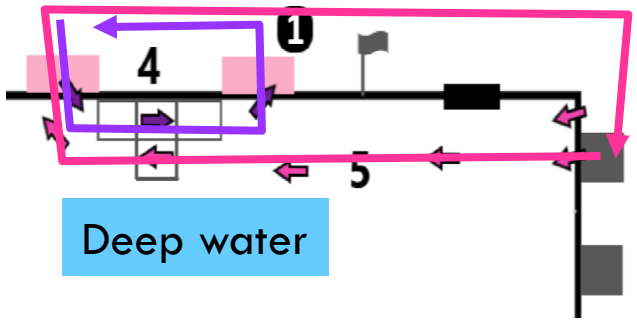
RESULTS – FINAL VERSION OF THE TOOL

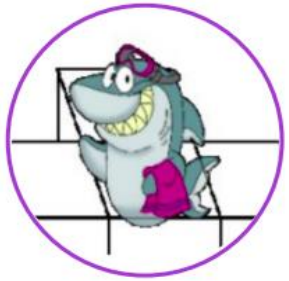


Circuit 2 (Poles) **Level 3** - Turtle	
1	Entry in the water from floating mat
2	Move forward along the poles by pulling with arms.
3	Exit water by climbing onto the floating mat

Circuit 3 (Poles & Slide) **Level 4** - Crocodile	
1	**Entry in the water by the slide**
2	**Dive in and go under a bar**
3	**Open your eyes underwater and catch an object**
4	Exit water by climbing onto the floating mat

RESULTS – FINAL VERSION OF THE TOOL



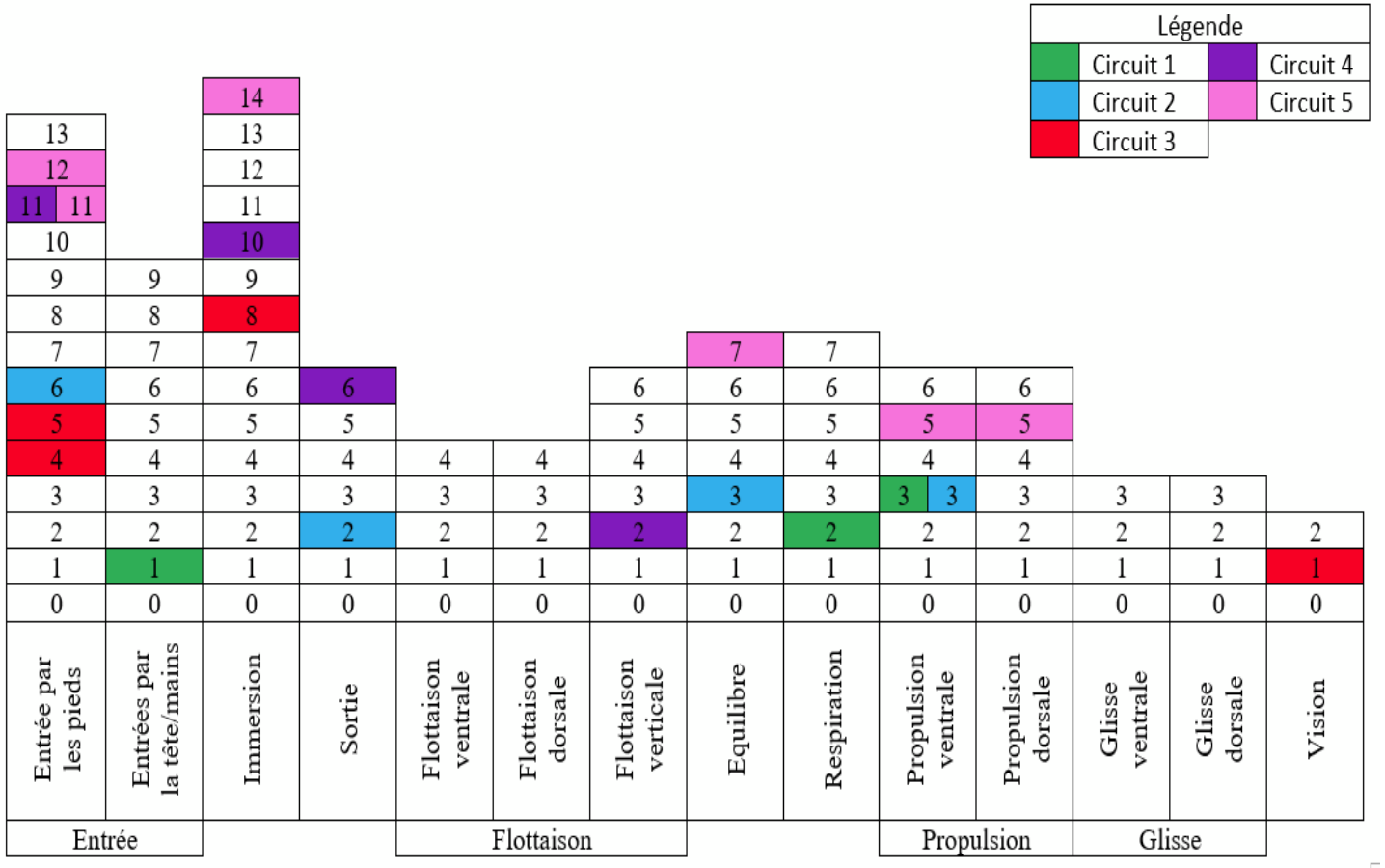


Circuit 4 (Cage in deep water) **Level 5** - Shark	
1	Jump into deep water
2	Swim underwater while passing under two bars of the cage
3	Treading water for 3 sec
4	Exit water

Circuit 5 (Deep water) **Level 6** - Fish	
1	Jump into deep water by a starting block
2	Swim 5 meters on the back
3	Turn from back to the front
4	Swim 5 meters on the front
5	Dive 1 meter deep an pass under the cage

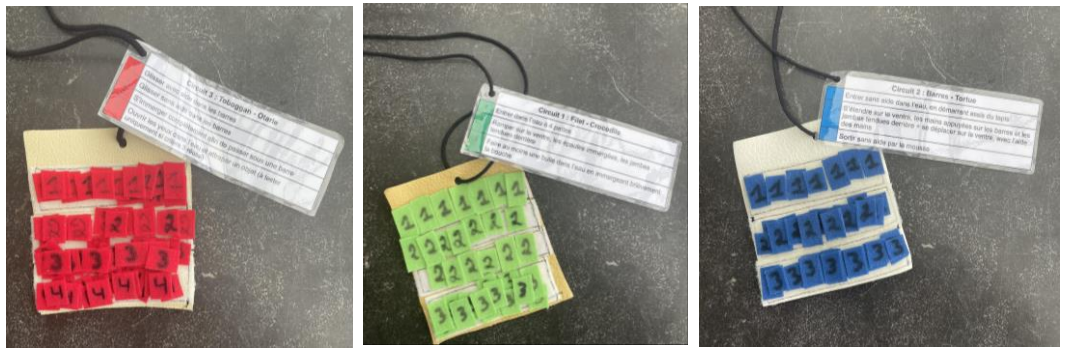
RESULTS – FINAL VERSION OF THE TOOL

- ✓ Assessing children level for main aquatic skills through Sequence of development

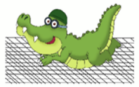


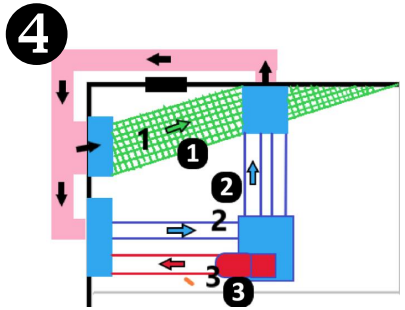
RESULTS – FINAL VERSION OF THE TOOL

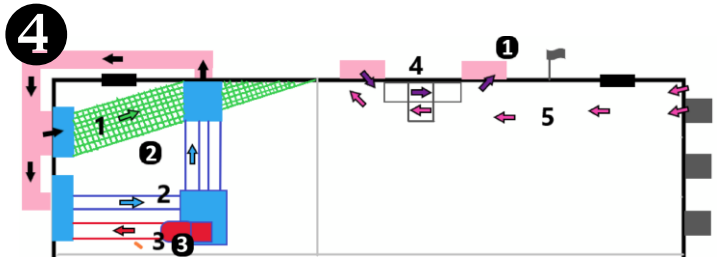
- ✓ Velcro pads and caps



- ✓ Three ❶❷❸ evaluators in the water and one out of the water ❹

	Velcros à coller sur bonnets			Encodage sur feuille	
	Circuit 1	Circuit 2	Circuit 3	Circuit 4	Circuit 5
	Crocodile	Tortue	Otarie	Requin	Poisson
					
	1	1	1	1	1
	2	2	2	2	2
	3	3	3	3	3
			4	4	4
				5	5
T1	❶ Moniteur 1	❷ Moniteur 2	❸ Moniteur 3	/	/
T2		❷ Moniteur 2	❸ Moniteur 3	❶ Moniteur 1	
(T3)		❸ Moniteur 3		❶❷ Moniteur 1 & 2	





RESULTS – FINAL VERSION OF THE TOOL

Water proficiency certificate

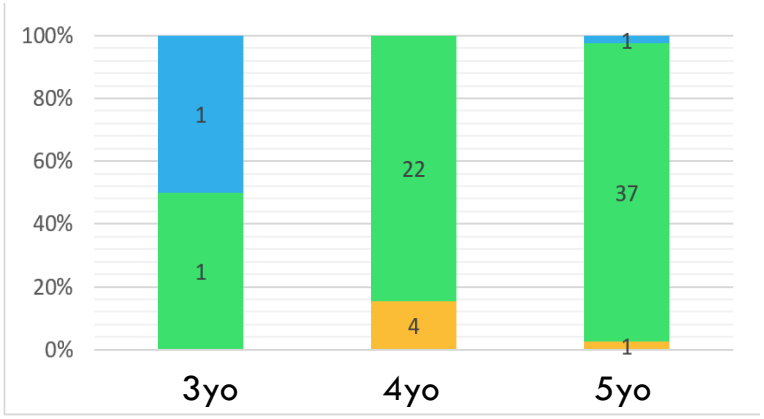
Medals

RESULTS – PRELIMINARY DATA

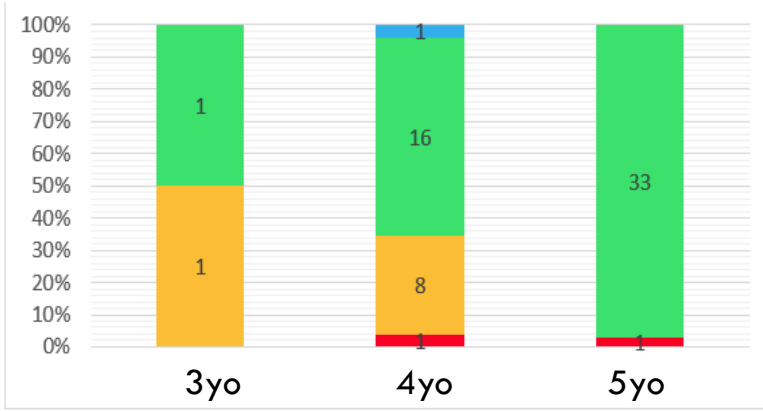
67 children (59% 🚺)

- ✓ 3yo : n= 2
- ✓ 4yo : n = 26
- ✓ 5yo : n = 39

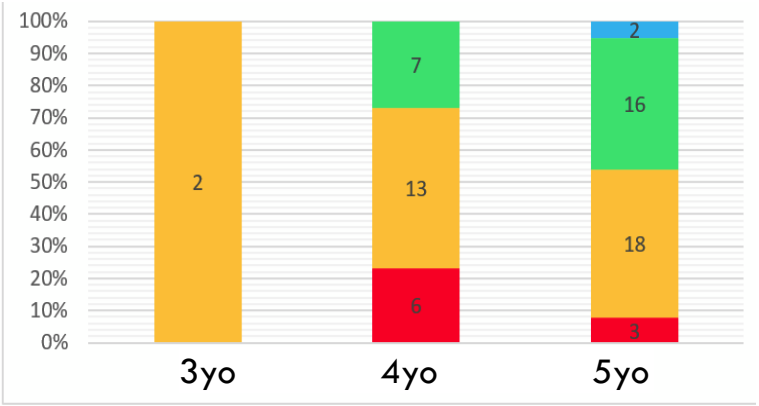
Circuit 1&2



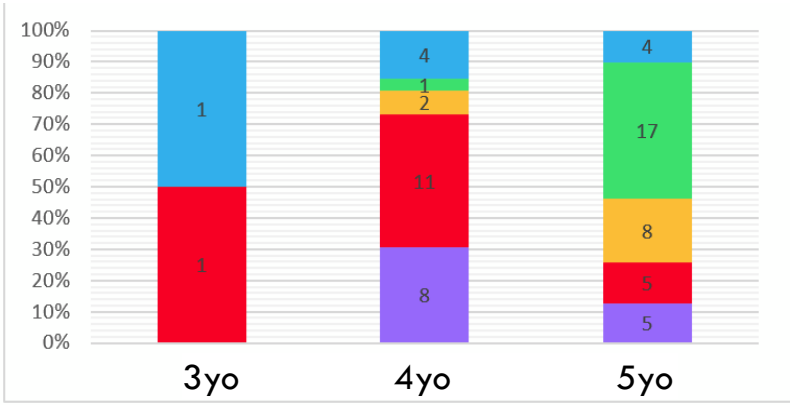
Circuit 3



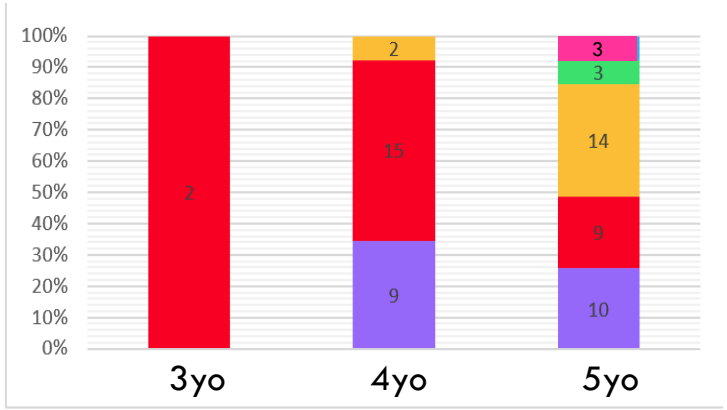
Circuit 4



Circuit 5



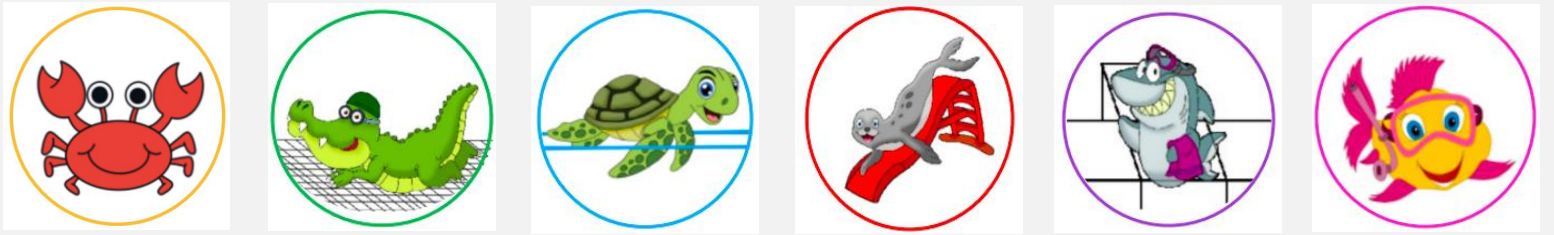
Circuit 6



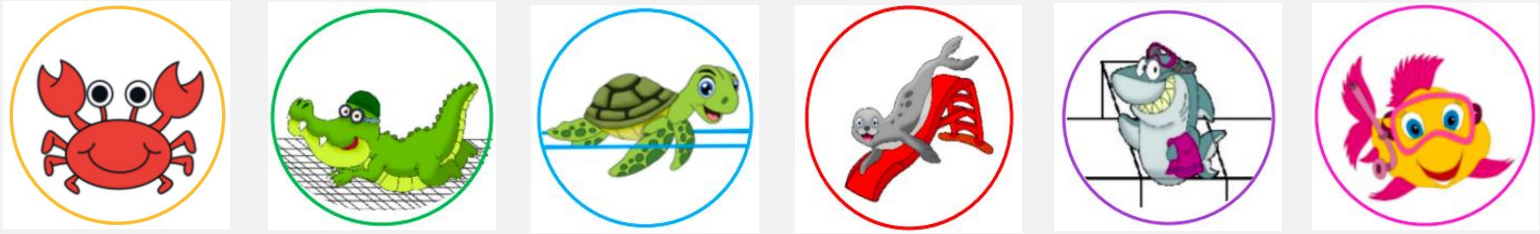
Legend

- Start with next circuit
- Fully suceeded in the circuit
- Fail at least 1 skill in the circuit
- Stuck at the previous circuit
- Don't want to try the circuit
- Missing data

CONCLUSION



- ✓ Successfull to asses ~30 children in 30 minutes into CEREKI Circuit
- ✓ Request :
  - ✓ 4 evaluators
  - ✓ Equipement
  - ✓ Training
  - ✓ Organisation
- ✓ Further research needed to confirm initial results and for validation process



Thank you for your attention

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