

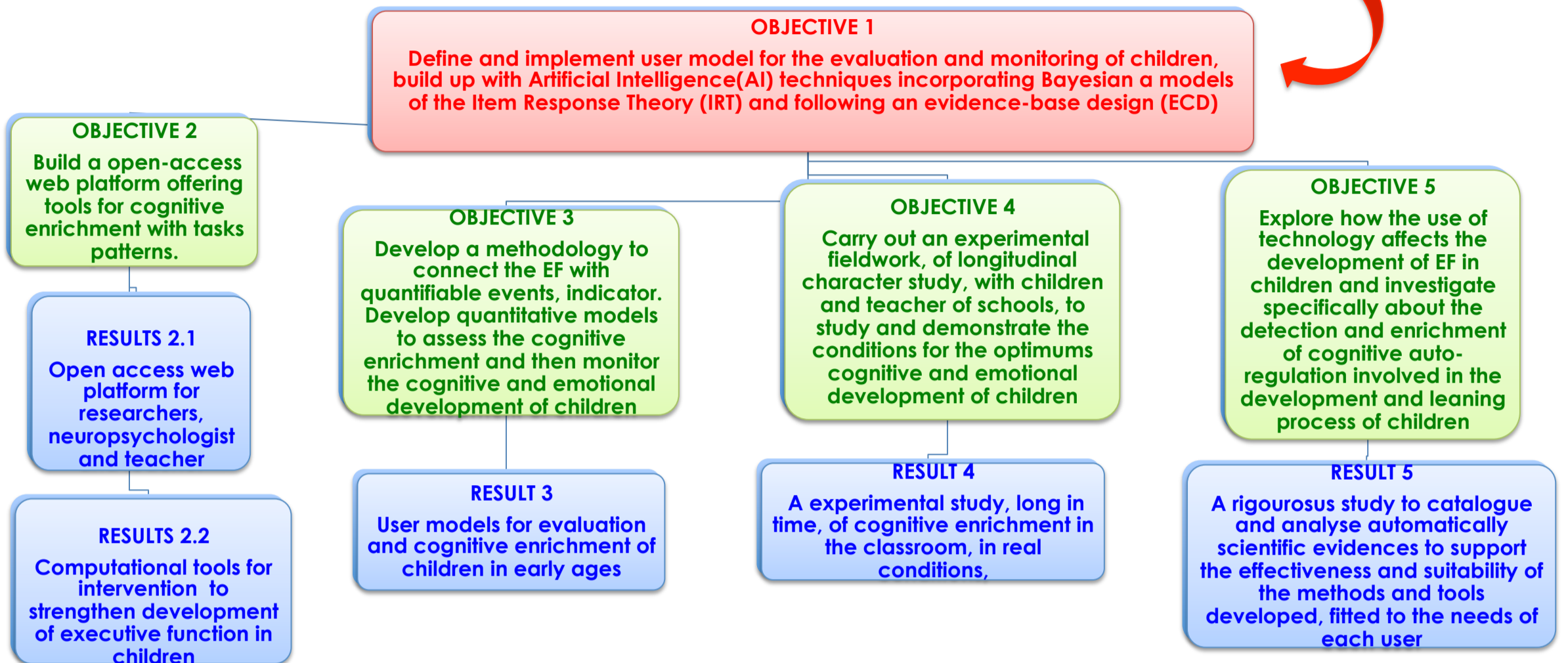
How evaluate and improve four dimensions of self-regulation in preschool settings

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1. RESEARCH PROBLEM AND OBJECTIVES

Self-regulation is a key executive function and its development start in early years. That EF function has been studied by classical tasks or diary activities in preschool setting, but It is necessary to design tecnological solutions for evaluate and enrichment it based in experimental studies in a ICT context.



2. METHOD. DESIGN, MATERIALS, PROCEDURE

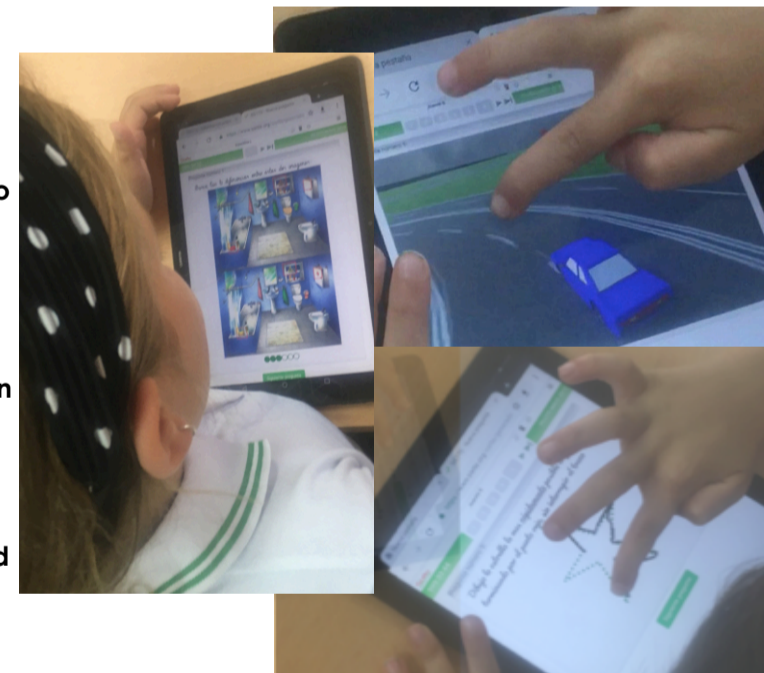
2.1 PREPARATORY STUDY

COMPUTER SCIENCE TEAM	PSYCHOLOGICAL TEAM
Adapt SIETTE (Test-based Intelligent Evaluation System) Platform as a web-based adaptive assessment tool for catalogue and analyse	Review theorical models on self-regulation in early childhood
JavaScript, Unity and HTML5	Review tests, resources and classical tasks to evaluate and enrichment self-regulation
Generate configurations parametes for each task	Design a tasks bank for: 1. MOTOR INHIBITION 2. VERBAL INHIBITION 3. EMOTIONAL INHIBITION 4. DELAYED GRATIFICATION
Generate assessment indicators for each task	
QR codes linked to each child profile are generated	

2.2 PILOT STUDY. APRIL TO JUNE 2019. n= 49 children LA REINA SCHOOL (MALAGA) AND HUERTAS VIEJAS SCHOOL (COIN)

TABLET SESSIONS N= 21 children

- ✓ **Attention Playing with differences.** This task is being used to help children to become familiar with interface of the tool. Two pictures appear and you have to find the difference between the two
- ✓ **Motor Inhibition:** Draw geometric figures with the finger according to given instructions (slowly or quickly)
- ✓ **Delayed gratification:** The children control a car that goes along a road where you see a gift in the distance, and they advance and advance... and you never get to the gift



FACE TO FACE SESSIONS N= 18 children

- **Motor Inhibition:** Hitting
- **Verbal inhibition:** Teddy/bunny says. Respond when the bell rings. I speak fast and I speak slow.
- **Emotional Inhibition** Puzzle angry. The closed box.



CROSS-SECTIONAL (3, 4 ,5 years old) and PRE-POST DESIGN WITH 3 GROUPS

CONTACT PHASE	PRETEST SESSIONS	ENRICHMENT SESSIONS		POSTEST SESSIONS	
School Administrator contacts and information on research project	9 NEPSY-II SubTests (children)	Experimental Group	Control Groups		9 NEPSY-II SubTests (children)
			Active Group	Pasive Group	
Parents` Acceptance	BRIEF Scale (parents)	TECHCAT Tablet tasks	TECHCAT Face to face tasks	Distractive tablet tasks (movie, story)	BRIEF Scale (parents)

3. MAJOR CONCLUSIONS

- ❖ Subtests selected have been appropriated to evaluate SR functions in childhood
- ❖ SIETTE PLATFORM has been adequated to recollect and analyse tablet data
- ❖ Tablets and Face to face tasks selected must be improved to experimental study in 2020