Formulario EOI - EXPRESIONES DE INTERÉS

Contact Person / Scientist in charge (Datos del IP del grupo de investigación o responsable cientifico)

- Research Group: HUM634
- https://hum634.uca.es/
- Experimental Educational Psychology Laboratory

Name and Surname:	JOSE I. NAVARRO GUZMAN
Email:	jose.navarro@uca.es

Department / Institute / centre (Datos del departamento donde estaría ubicado el investigador a contratar)

Name:	PSYCHOLOGY. UNIVERSITY OF CADFIZ (SPAIN)
Address:	CAMPUS RIO SAN PEDRO. PUERTO REAL-CADIZ (SPAIN

Project Description(max. 1800 characteres)

Math Cognition

Learning mathematics is one of the most stimulating experiences in life. The learning process is complex, and the failure rate has an estimated prevalence of about 10%. The cognitive processes involved in number-sense acquisition are still a source of scientific discussion in Cognitive-sciences and Education. Understanding the fascinating developmental nature of number-sense is one of the outstanding scientific challenges. The central aim of this project is to further develop new experimental approaches in two areas: (1) unravel the cognitive-network functions involved in early mathematics: (2) design a mathematics learning program for children from age 3–8 using the ground-breaking "Open Algorithm Based on Numbers" (ABN) approach. The ABN method constitutes a deep conceptual change in teaching/learning of mathematics that develops a number sense focusing on numbers rather than ciphers. The ambitious research can only attain its target by using high-end method. Participants identified as being at risk of Mathematical Learning Difficulties (MLD) will receive specific ABN training in early mathematics with a focus on cognitive functions. My hypothesis is that children at risk of MLD organize their executive functions inappropriately. ABN intends to develop a specific math training method that will help children to reconstruct the cognitive architecture necessary for the acquisition of number sense. ABN will impact current understanding on how general and specific cognitive mechanisms limit the way children tackle the task of math acquisition. This is a highly relevant issue for researchers in psychology, mathematics, and education.

Research Area (select)

	Chemistry (CHE)
X	Social Sciences and Humanities(SOC)
	Economic Sciencies (ECO)
	Information Science and Engineering (ENG)
	Environmetal Sciences and Gelogy (ENV)
	Life Scientes (LIF)
	Mathematics (MAT)
	Physics (PHY)

Applications: documents to be submitted and deadlines

CV, deadline 14-08-2022

Examples: Expression of interest, **CV**