

Part A. PERSONAL INFORMATION

CV date 01/01/2023

First and Family name	JOSÉ I. NAVARRO GUZMÁN		
Researcher numbers	Researcher ID	D-8838-2011	
	Orcid code	0000-0002-0738-2641	

A.1. Current position

Name of University/Institution	UNIVERSIDAD DE CÁDIZ		
Department	DEPARTMENT OF PSYCHOLOGY		
Address and Country	CAMPUS RIO SAN PEDRO, 11519 Puerto Real-Cádiz (Spain)		
Current position	FULL PROFESSOR	From	10/06/1998
Espec. cód. UNESCO	6102, 610204, 610299		
Palabras clave	Cognition, Learning difficulties, Math cognition, MLD		

A.2. Education

PhD	University	Year
B.S./M.S. Psychology	University of Seville (Spain)	1980
Ph.D. Psychology	University of Seville (Spain)	1984

A.3. JCR articles, h Index, thesis supervised...

Total Articles: 79; **JCR** articles: 50 (Q1 or Q2 15); **Web of Science H index:** 11 (Google Scholar: 34); Total cited: 364 (Google Scholar: 3771; *Average Citations per Article last 5 years*, 4.75; **Thesis supervised:** Last 10 years I've supervised 10 PhD thesis. Six in qualified PhD programs; 5 thesis received an international mention; I've also supervised 3 international theses with Latino America Universities. I hold 5 (out of 6) of six-year-research-units, *plus one* transference research-units (granted by Spanish CNEAI; last unit: 2013-2018).

Part B. CV SUMMARY (*max. 3500 characters, including spaces*)

I hold a PhD in Psychology, University of Seville (Spain). Fulbright visiting researcher at State University of New York (with Prof. R.Miller); Visiting scholar at Ohio State University (USA) (where I was also on sabbatical with Professors Dr. W.Heward and Dr. R.Howell, 1995), and Oxford University (UK) (Prof. P. Bryant). Short-term visiting professor in Department of Psychology, at The University of New Mexico (USA), 2002-2015. I am a full professor in Psychology of Education from 1986. Director of the research group "Psychology" (HUM634). Leading several applied studies on cognition and learning mathematics disabilities, as well as educational software design. For 4 years I was the international coordinator of the RIDE PhD network, the international mobility program "Pablo Neruda" (EIO). I have co-directed two research projects funded by the European Union, one of them linked to new technologies in the area of intellectual disabilities. Within the national R&D&i program, I have been PI or participating in high competitive projects uninterruptedly since 1996. Several of them are closely related to applied mathematical cognition). These projects not only have had significant scientific productivity (more than 90 articles published in high quality peer-reviewed journals), but have made possible the transfer of knowledge and products to the education area and education Companies. In the teaching field I am linked to the University of Cádiz last 29 years, where I have been awarded with a 5th stage of teaching in 2014. From university administration duties, I have been Chair of Department of Psychology (UCA) for 10 years. I was coordinator of the Bachelor program in Psychology 2010-2017, and the Master Program (2005-2009). My teaching and research career has been characterized by getting synergies in the both teaching and researching activities, updating the contents I taught, changing courses periodically, and learning from my applied research. I am participating in the CLIC experience at School of Education, teaching partially my courses in English. Finally, other characteristic of my research career has been internationalization: having collaborated in both activities in USA, European and Latino America universities. In 2010 I was admitted at University of Oxford as a Visiting Professor (Department of Education; Prof. T. Nunes) having a "Salvador de Madariaga" program grant (PRX19/00514) (cancelled by pandemic). Finally, within my skills, I would highlight my ability to create and consolidate functional working teams in my context. The most significant publications, funded research projects and knowledge transfer resulting are available on the personal website: <http://hum634.uca.es>.



Part C. RELEVANT MERITS (*I am frequently not listed as first author in order to give preference to students, postdocs and early career researchers*).¹

C.1. Publications (including books) (information available in: <https://produccioncientifica.uca.es/investigadores/113081/detalle>)

- Aragón, E., Delgado, C., Canto, M.C. & Navarro, J.I. (2023). Influence de la comparaison symbolique versus non symbolique sur le risque de difficultés d'apprentissage en mathématiques en éducation de la petite enfance. *Psychologie Française* (accepted in press)
- Mera, C., Delgado, C., Aragón, E., Canto, M.C., Menacho, I. & Navarro J.I. (2022). Contributions of the Psychology of mathematical cognition in Early Childhood Education using Apps. *Frontiers in Psychology*. 13:913970. <https://doi.org/10.3389/fpsyg.2022.913970>
- Aragón, E., Cerda, G., Pérez-Wilson, C., Aguilar, M. & Navarro, J.I. (2022). Socio-economic and cultural context in the development of early mathematical competencies: a comparative study of specific educational contexts in Chile and Spain. *Psychological Reports*, April (on line first), <https://doi.org/10.1177/00332941221097950>
- Aragón, E., Canto, M. C., Aguilar, M., Menacho, I. & Navarro, J. I., (2022). Longitudinal study of symbolic and non-symbolic magnitude processing and its relationship with mathematical achievement. *Revista de Psicodidáctica*, <https://doi.org/10.1016/j.psicoe.2022.08.001>
- Virues-Ortega, J., Delgado-Casas, C., Martín, N., Tarifa-Rodríguez, A., Reina-Holgado, A., Cox, A., & Navarro, J.I. (2022). Accuracy of paper-and-pencil systematic observation versus computer-aided systems. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-022-01861-0>
- Andrés, M. L., del-Valle, M. V., Richaud de Minzi, M. C., Introzzi, I., Canet-Juric, L., & Navarro-Guzmán, J. I. (2021). Distress Tolerance and Executive Functions: A Systematic Review. *Psychology & Neuroscience*. 14(3), 280–297. <http://dx.doi.org/10.1037/pne0000259>
- Navarro, J.I., Romero, E., Menacho, I. & Aragón, E. (2021). Teaching Psychology at University using the Content and Language Integrated Learning (CLIL) approach. *Porta Linguarum*, 35, 77-91. doi: <https://doi.org/10.30827/portalin.v0i35.16858>
- Aragón, E., Cerda, G., Aguilar, M., Mera, C. & Navarro, J.I. (2020). Modulation of general and specific cognitive precursors to early mathematical competencies in preschool children. *European Journal of Psychology of Education*, 36(2), 405-422. <https://doi.org/10.1007/s10212-020-00483-4>
- Canto-López, M.C., Aguilar, M., García-Sedeño, M.A., Navarro, J.I., Aragón, E., Delgado, C. & Mera, C. (2019). Numerical estimation and mathematical learning methodology in pre-schoolers. *Psychological Reports*, 124 (2) 438–458, <https://doi.org/10.1177/0033294119892880>.
- Mera, C., Ruiz, G., Aguilar, M., Aragón, E., Delgado, C., Menacho, I., Marchena, E., García, M. & Navarro, J.I. (2019). Coming Together: R&D and Children's Entertainment Company in Designing APPs for Learning Early Math. *Frontiers in Psychology*, 9, 2751. <https://doi.org/10.3389/fpsyg.2018.02751>
- Aragón, E., Cerda, G., Delgado, C., Aguilar, M. & Navarro, J.I. (2019). Individual differences in general and specific cognitive precursors in early mathematical learning. *Psicothema*, 31 (2), 156-162. <https://doi.org/10.7334/psicothema2018.306>
- Aguilar, M., Aragón, E. & Navarro J.I. (2019). Componentes cognitivos del sistema de aproximación numérica y la fluidez de cálculo en niños de educación primaria. *Universitas Psychologica*, 18 (3), 1-22. Doi: 10.11144/Javeriana.upsy18-3.ccsa
- Cerda, G., Aragón, E., Pérez, C., Navarro, J.I. & Aguilar, M. (2018). The Open Algorithm Based on Numbers (ABN) method: An effective instructional approach to domain-specific precursors of arithmetic development. *Frontiers in Psychology*, 9:1811 [Doi: 10.3389/fpsyg.2018.01811](https://doi.org/10.3389/fpsyg.2018.01811)
- Navarro, J.I. & Martín Bravo, C. (Eds.) (2018). *Aprendizaje escolar desde la psicología*. Madrid: Pirámide.
- Delgado, C., Navarro, J.I. & Virues, J. (2018). Interobserver agreement in software-aided and paper-and-pencil behavioral observation. *Behavioral Interventions*. (submitted June 2018)



- Aragón, E., Aguilar, M., Navarro, J.I. & Howell, R. (2017). Improving number sense in kindergarten children with low achievement in mathematics. *Annals of Psychology*, 33 (2), 311-318. Doi: [10.6018/analesps.33.2.239391](https://doi.org/10.6018/analesps.33.2.239391)
- Aragón, E., Canto, M.C., Marchena, E., Navarro, J.I. & Aguilar, M. (2017). Cognitive profile in learning mathematics with open calculation based on numbers (ABN). *Journal of Psychodidactics*, 22 (1), 54-59. Doi: [10.1387/RevPsicodidact.16396](https://doi.org/10.1387/RevPsicodidact.16396)
- Aguilar, M., Aragón, E., Navarro, J.I., Delgado, C., & Marchena, E. (2017). Análisis del efecto san Mateo en un estudio longitudinal sobre el desarrollo lector durante la educación primaria (1.º a 5.º). *European Journal of Education and Psychology*, 10(1), 23-32. Doi: [10.1016/j.ejeps.2016.07.001](https://doi.org/10.1016/j.ejeps.2016.07.001)
- Aragón, E., Aguilar, M., & Navarro, J.I. (2017). Sistema instruccional de apoyo a la enseñanza del sentido numérico. *Revista de Educación*, 375, 14-35. Doi: [10.4438/1988-592X-RE-2016-375-333](https://doi.org/10.4438/1988-592X-RE-2016-375-333)
- Andrés, M.L., Stelzera, F., Vernuccia, S., Juric, L.C., Galli, J.I. & Navarro, J.I. (2017). Regulación emocional y habilidades académicas: relación en niños de 9 a 11 años de edad. *Suma Psicológica*. Doi: [10.1016/j.sumpsi.2017.07.001](https://doi.org/10.1016/j.sumpsi.2017.07.001)
- Aragón, E., Navarro, J.I., Aguilar, M., Cerda, G., & García-Sedeño, M. (2016). Predictive model for early math skills based on structural equations. *Scandinavian Journal of Psychology*, 57 (6), 489-494. Doi: [10.1111/sjop.12317](https://doi.org/10.1111/sjop.12317)
- Aragón, E., Delgado, C., Navarro, J.I., Menacho, I., & Romero, M. (2016). A comparative study of handwriting and computer typing in note-taking by university students. *Comunicar*, 48, 101-107. Doi: [10.3916/C48-2016-10](https://doi.org/10.3916/C48-2016-10)
- Aragón, E. & Navarro, J.I. (2016). Exploración de diferencias de género en los predictores de dominio general y específico de las habilidades matemáticas tempranas. *Suma Psicológica*, 23 (2), 71-79. Doi: [10.1016/j.sumpsi.2016.04.001](https://doi.org/10.1016/j.sumpsi.2016.04.001)
- Aragón, E. & Navarro, J.I., & Aguilar, M. (2016). Domain-specific predictors for fluency calculation at the beginning of primary school education. *Electronic Journal of Research in Educational Psychology*, 14(3), 482-499. Doi: [10.14204/ejrep.40.15107](https://doi.org/10.14204/ejrep.40.15107)
- Ramiro, P., Navarro, J.I., Menacho, I., López, M.M., & García, M.A. (2016). Bienestar psicológico en personas con alta capacidad intelectual. *European Journal of Education and Psychology*, 9 (2), 72-78. Doi: [10.1016/j.ejeps.2015.12.001](https://doi.org/10.1016/j.ejeps.2015.12.001)
- Aragón, E., Aguilar, M., Navarro, J.I., & Araujo, A. (2015). Efectos de la aplicación de un programa de entrenamiento específico para el aprendizaje matemático temprano en educación infantil. *Revista Española de Pedagogía/Spanish Journal of Pedagogy*, 260, 99-113.
- Navarro, J.I. (2015). *Dificultades de aprendizaje de las matemáticas. Presentación del monográfico*, *Revista de Psicología y Educación*, 10(2),8-11.
- Aguilar, M., Aragón, E. & Navarro, J.I. (2015). *Las dificultades de aprendizaje de las matemáticas (DAM). Estado del arte*. *Revista de Psicología y Educación*, 10(2), 13-42.
- Martín Bravo, C. & Navarro, J.I. (Eds.) (2015). *Psicología evolutiva en educación infantil y primaria*. Madrid: [Pirámide](https://www.piramide.com). ISBN: 978-84-368-3461-1
- Van Luit, E.H.J, Van de Rijt, B., Araujo, A., Aguilar, M., Aragón, E., Ruiz, G., Navarro, J.I., Menacho, I., & García-Sedeño, M. (2015). *Test de evaluación matemática temprana-informatizado (TEMT-i)*. Madrid: EOS. ISBN: [978-84-9727-435-7](https://www.eos.es).
- Delgado-Casas, C., Navarro, J.I., Garcia-Gonzalez-Gordon, R., & Marchena, E. (2014). Functional analysis of challenging behavior in people with severe intellectual disabilities. *Psychological Reports*, 115 (3), 655-669. Doi: [10.2466/15.PR0.115c26z4](https://doi.org/10.2466/15.PR0.115c26z4)
- Araujo, A., Aragón, E., Aguilar, M., Navarro, J.I. & Ruiz, G. (2014). Un estudio exploratorio para la adaptación de la versión española revisada del "Early Numeracy Test-R" para evaluar el aprendizaje matemático temprano. *European Journal of Education and Psychology*, 7(2), 83-93. Doi: [10.1989/ejep.v7i2.181](https://doi.org/10.1989/ejep.v7i2.181).
- Montero, J., Navarro, J., & Aguilar, M. (2013). Procesos de automatización cognitiva en alumnado con altas capacidades intelectuales. *Anales de Psicología*, 29(2), 454-461. DOI: [10.6018/analesps.29.2.123291](https://doi.org/10.6018/analesps.29.2.123291)

C.2. Research projects and grants

1. **Reference:** PID2019-105584GB-I00. "Mathematical cognition and "Open, Number Based Method in 5th & 6th Primary School graders" Funded by Ministerio de Ciencia e Innovación. From 01/01/2020 to 31/12/2022. 42.350€. (PI)

- Reference:** PSI2015-63856-P. [Development of early mathematical cognition using app. An empirical study.] Funded by: Ministerio Economía y Competitividad. Spanish Government. From: 01/01/2015 to 31/12/2018. 38.236€. **(PI)**
- Reference:** EDU2011-22747. [Numerical cognition and teaching of early mathematics through e-learning.] Funded by: Ministerio Economía y Competitividad. Spanish Government. From: 01/01/2012 to 31/12/2014; 39.083 €. **(PI)**
- Reference:** P09-HUM-4918. e-MAT. Prevention and early intervention in mathematical difficulties through e-evaluation and e-learning. Funded by: Andalucía Government. From: 03/02/2010 to 02/02/2013. 157.923,68 € **(PI)**
- Reference:** SEJ2007-62420/EDUC. Cognitive variables helping recovery of the mathematics learning difficulties. Funded by: Ministerio de Ciencia e Innovación, Spanish Government; From: 01/10/2007 to -30/09/2010. 32.400 €. **(PI)**
- Reference:** PB98-0576. Study of cognitive skills in students with attention deficits through computer-assisted teaching. Funded by: Ministerio de Educación, Cultura y Deporte. Spanish Government. From: 01/01/2000 to 31/12/2002. 24.000 €. **(PI)**
- Reference:** PRX19/00514. “Salvador de Madariaga” Grant. Advances in early numerical cognition. Admitted six months at University of Oxford (Department of Education). Funded by: Ministerio de Ciencia, Innovación y Universidades, Spanish Government; 19.000 € **(PI)**

C.3. Contracts

- OTRI220/00; [Conservation and maintenance of cognitive functions in elderli people through new technologies]. **PI:** Funded by: Dept. Social Services. Diputación of Cádiz. From: 01/04/2003 to 30/04/2004. 48.080 €.
- OTRI119-99 (Reference 98H1061AND/AND-1997ESP-625). [Training people with special educational needs through computer-assisted teaching]. **PI:** (at UCA). Funded: European Comission. Horizon Program. From: 17/03/2000 to 17/03/2003. 107.650 €.

C.4. Patents (*Knowledge transfer included*)

- Van Luit, J.E.H., Van de Rijt, B.A.M., Navarro, J. I., Aguilar, M., et al., (2011). *Test de evaluación matemática temprana* (TEMT). Madrid: EOS. ISBN: 978-84-9272.
- Navarro, J.I., Ruiz, G., Alclade, C, Marchena, E., y Aguilar, M. (2007). *Jugando con números. Software en Cd-rom problemas matemáticos para niños*. Cádiz: Departamento de Psicología. ISBN: 978-84-608-0579-3
2018. Throught OTRI-UCA, the following APP have beeing registered at the Regional Intellectual Propierty Administration with the registration numbers: Rapicuenta con Mon el Dragón, 04/2018/3688; Busca al Duende Pedrito, 04/2018/3689; Cuenta letras con Mon el Dragón, 04/2018/3730; Calcula con Mon el Dragón, 04/2018/3804; Conejo Lupito vuelve a casa, 04/2018/3805; Encuentra el número escondido con Mon el Dragón, 04/2018/3806; Compara cantidades con Mon el Dragón, 04/2018/3807

C.5. Awards and distinctions: Distinguished Visiting Professor. Department of Educational Services & Research. Ohio State University (USA), 1992; 3rd National Price “Educative software Design”. 1994 and 1996 (Spanish Government); Research Price. 1888. Provincial Government of Cádiz; Award of “Didactic educational resourcers for teaching math” 2002. Funded by Mathematics Teachers Association (SAEM THALES). Second Prize “atrEBT! HUMAN” to the project “Babymath” competition. UCA May 2019

C.6. Referee for JCR Journals: Psychological Report, Spanish Jr. of Psychology, Scandinavian Jr. of Educational Research, Brain & Behavior, Psicothemas, Anales de Psicología, Revista de Psicodidáctica, Research in Developmental Disabilities, Jr. of Research in Childhood Education, Educational Research Review, Current Psychology (...)

C.7. Experience in evaluation and technical committees: International evaluator of research projects for Italian government, from 2012-*to now*; Chilenan government, from 2017-*to now*; Spanish government, from 1992-*to now*. Evaluator for ANECA Agency, ACADEMIA program, from 2011-2017; Member of ANECA Committee-17 of full professors national accreditation, from 2016-2019. Member of the Experts Committee for the “School Schedule in Andalucía Education System report” (Andalucía Government,1998). Member of the Long Life Education Committe (Ministerio de Educación, Spain), from 2021-*now*. Member for ANEC Agency Social Science Review Committee from January 2022 –*now*.