

CURRICULUM VITAE ABREVIADO (CVA)

Part A. PERSONAL INFORMATION

PART A: PERSONAL INFORMATION			
First name	José Antonio		
Family name	González-Calero Somoza		
Gender (*)	██████	Birth date (dd/mm/yyyy)	██████████
Social Security, Passport, ID number	██████████		
e-mail	██		Web: https://labintic.uclm.es
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-0842-8151	

(*) Mandatory

A.1. Current position

Position	PROFESOR TITULAR (Associate Professor)		
Initial date	2019		
Institution	University of Castilla-La Mancha		
Department/Center	Mathematics	School of Education of Albacete	
Country	Spain	Teleph. number	967599200
Key words	problem solving, educational technology, artificial intelligence		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2016-2019	PROFESOR CONTRATADO DOCTOR INTERINO / UCLM / SPAIN
2015-2016	PROFESOR AYUDANTE DOCTOR / UCLM / SPAIN
2010-2015	PROFESOR AYUDANTE / UCLM / SPAIN

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
DOCTOR IN MATHEMATICS EDUCATION	UNIVERSITY OF VALENCIA	2014
DEGREE IN INDUSTRIAL ENGINEERING	UNIVERSITY OF CASTILLA-LA MANCHA	1999

(Include all the necessary rows)

Part B. CV SUMMARY (max. 5000 characters, including spaces)

José Antonio González-Calero Somoza is Doctor with International Certification, graduated *summa cum laude*, in Specific Didactics by the Universitat de València (2014). He has been a teaching and research staff member of the Universidad de Castilla-La Mancha since 2010. At present, he is Associate Professor in the Faculty of Education of Albacete affiliated to the Department of Mathematics in the Didactics of Mathematics area. He has accredited two six-year research activity period (2011-2016, 2017-2022), which are the only two he has been able to request so far.

His current lines of research are focused on problem-solving, the application of intelligent tutoring systems in the teaching of mathematics, and educational technology. His work in these fields over the last ten years has been reflected in the publication of 31 articles indexed in the *Journal Citation Reports* (JCR) (21 Q1). In addition to the prestigious journals indicated in the publications section, he has published in journals such as: *Australasian Journal of Educational Technology*; *International Journal of Technology and Design Education*; *Journal of Research on Technology in Education*; *Early Childhood Education Journal*; *Revista de Educación*; *Interactive Learning Environments*; *Mathematical Thinking and Learning*; *Educational Studies in Mathematics*; *International Journal of Science and Mathematics Education*; *Knowledge-Based Systems*; or, *IEEE Transactions on Learning Technologies*. Apart from these high-impact articles, he has published more than 80 papers in other sources, including several papers in journals indexed in SCOPUS. Moreover, he has edited and authored various book chapters in prestigious publishing houses such as Graó (SPI Q1), Octaedro (SPI Q1), and Síntesis (SPI Q1).



His Web of Science researcher profile reflects that he has an H-index of 8 with 35 publications and 261 citations. In SCOPUS, his H-index is of 13, with 57 publications and 556 citations; finally, his Google Scholar account shows that he has an H-index of 20 with a total of 1688 citations.

He has participated in several academic conferences, seminars, and courses as a member of both the organising and the scientific committees. In addition, he has given more than 60 presentations – excluding posters– in renowned educational conferences, 13 of them in international congresses abroad. He has also given keynote addresses in international and national symposiums.

Presently, he is co-leading the national project “Computational thinking: Digital skills for the 21st century from an inclusive and equitable gender and rural perspective (CT21FORALL)” and the regional project “Design and implementation of teaching methods based on errors and *Learning Analytics*”. Furthermore, he has been a full-time member of the national plan research team since 2010 and has taken part in five different projects of this nature along these years. At regional level, he has also participated in three research projects; and, at international level, his collaboration in the project “Design, development and evaluation of an APP to promote the development of Intercultural Competence and ICT Competence in Higher Education teachers” of the National Program in Human and Social Sciences and Education (COLCIENCIAS) of Colombia is particularly noteworthy. Besides, he has been the head of three teaching quality and innovation projects granted through competitive calls and has been engaged as a research member in 10 other projects. He is one of the principal researchers of the UCLM established research group “LabinTic. Laboratorio de integración de las TIC en el aula” (Laboratory for the ICT integration in the classroom) since its foundation in 2012.

His mentoring work includes the supervision of four doctoral thesis and the current supervision/co-supervision of five on-going PhD thesis. Additionally, he has tutored the elaboration of 33 Master’s Degree final projects and 25 Degree final projects. He is also in charge of an FPU (University Teacher Training Programme of Spain) contract and manages and has managed several grants for research training. To conclude, in the University Management area, he was designated the General Coordinator of the Primary Education Teacher's Degree of the Faculty of Education of Albacete from 2011 to 2016 and was selected for the position of Vice-Dean of that Faculty from 2015 to 2020. He is member of the Spanish Society of Research in Mathematics Education.

Part C. RELEVANT MERITS (*sorted by typology*)

C.1. Publications (*see instructions*)

1. del Olmo-Muñoz, J., González-Calero, J. A., Diago, P. D., Arnau, D., & Arevalillo-Herráez, M. (2023). Intelligent tutoring systems for word problem solving in COVID-19 days: could they have been (part of) the solution? *ZDM – Mathematics Education*, 55(1), 35–48. <https://doi.org/10.1007/s11858-022-01396-w> (JCR Q2)
2. Merino-Armero, J. M., González-Calero, J. A., & Cózar-Gutiérrez, R. (2023). The effect of after-school extracurricular robotic classes on elementary students’ computational thinking. *Interactive Learning Environments*, 31(6), 3939–3950. <https://doi.org/10.1080/10494820.2021.1946564> (JCR Q1).
3. Soneira, C., González-Calero, J. A., & Arnau, D. (2023). Effect of algebraic language and problem text wording on problem model accuracy when solving age word problems. *Educational Studies in Mathematics*, 114(1), 109–127. <https://doi.org/10.1007/s10649-023-10236-x> (JCR Q2)
4. Rodríguez-Martínez, J. A., González-Calero, J. A., del Olmo-Muñoz, J., Arnau, D., & Tirado-Olivares, S. (2023). Building personalised homework from a learning analytics based formative assessment: Effect on fifth-grade students’ understanding of fractions. *British Journal of Educational Technology*, 54(1), 76–97. <https://doi.org/10.1111/bjet.13292> (JCR Q1)
5. del Olmo-Muñoz, J., González-Calero, J. A., Diago, P. D., Arnau, D., & Arevalillo-Herráez, M. (2022). Using intra-task flexibility on an intelligent tutoring system to promote arithmetic problem-solving proficiency. *British Journal of Educational Technology*, 53(6), 1976–1992. <https://doi.org/10.1111/bjet.13228> (JCR Q1)
6. Villena, R., Tirado, S., Cózar-Gutiérrez, R., & González-Calero, J.A. (2022). Effects of virtual reality on learning outcomes in K-6 education: A meta-analysis. *Educational Research Review*, 35, 100434. <https://doi.org/10.1016/j.edurev.2022.100434> (JCR Q1)
7. Ramírez, M.C., Cózar-Gutiérrez, R., Roblizo, M., & González-Calero, J.A. (2021). Towards a coordinated vision of ICT in education: A comparative analysis of Preschool and Primary Education teachers’ and parents’ perceptions. *Teaching and Teacher Education*. 100, 103300.

<https://doi.org/10.1016/j.tate.2021.103300> (JCR Q1)

8. del Olmo, J., Cózar-Gutiérrez, R., & González-Calero, J.A. (2020). Computational thinking through unplugged activities in early years of Primary Education. *Computers & Education*, 150, 103832. <https://doi.org/10.1016/j.compedu.2020.103832> (JCR Q1)

9. González-Calero, J. A., Berciano, A., & Arnau, D. (2020). The role of language on the reversal error. A study with bilingual Basque-Spanish students. *Mathematical Thinking and Learning*, 22(3), 214–232. <https://doi.org/10.1080/10986065.2020.1681100> (JCR Q3)

10. González-Calero, J.A., Cózar-Gutiérrez, R., Merino, J., & Villena, R. (2019). The development of mental rotation abilities through robotics-based instruction: An experience mediated by gender. *British Journal of Educational Technology*. 50, 3198-3213 <https://doi.org/10.1111/bjet.12726> (JCR Q1)

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

1. Mínguez-Pardo, R., González-Calero, J. A., del Olmo-Muñoz, J., & Arnau, D. (2022). Error-based teaching to improve primary school students' understanding of decimal numbers. 45th Conference of the International Group for the Psychology of Mathematics Education. Poster.

2. Mínguez-Pardo, R., del Olmo-Muñoz, J., Osorio-Utiel, L., Diago, P. D., & González-Calero, J. A. (2022). Una mirada de género a la satisfacción percibida por estudiantes de Educación Primaria sobre un sistema tutorial inteligente para la resolución de problemas verbales. VI Congreso Internacional sobre Innovación Pedagógica y Praxis Educativa - INNOVAGOGÍA 2022. Oral presentation with associated publication.

3. Bueno, A., del Olmo, J., Tirado, S., Cózar-Gutiérrez, R., & González-Calero, J.A. (2021). Los futuros docentes y el pensamiento computacional: primeras ideas. XXIV Congreso internacional EDUTEC. 10-12/11/2021. Buenos Aires (Argentina). Oral presentation with associated publication.

4. Cózar-Gutiérrez, R., González-Calero, J.A., & Villena, R. (2021). Formación de futuros maestros en tecnologías emergentes. Una experiencia en la enseñanza de Ciencias Sociales. X Simposio Internacional de Didáctica de las Ciencias Sociales en el ámbito iberoamericano. 20-22/05/2021. Murcia (España). Oral presentation with associated publication.

5. Tirado, S., del Olmo, J., González-Calero, J.A., & Cózar-Gutiérrez, R. (2021). Creación y uso de escenarios de realidad virtual en la formación inicial de maestros. XI Congreso Iberoamericano de Docencia Universitaria. 27-29/01/2021. Tenerife (España). Oral presentation with associated publication.

6. González-Calero, J. A. (2021). Resolución de problemas y tecnología. Presentada en el marco del programa Todos a Aprender, organizada por el Ministerio de Educación Nacional de Colombia y desarrollada de manera virtual el 16 de marzo de de 2021. Invited conference.

7. González-Calero, J. A. (2020). Tecnología y aprendizaje en educación infantil: Una visión práctica. Presentada en el marco del evento Ruta Académica por la Transformación Social: Construyendo Lazos por un Desarrollo Integral de la Primera Infancia, desarrollado en Cartagena de Indias (Colombia) del 23 al 25 de septiembre de 2020 de manera virtual por el Covid-19. Invited conference.

8. González-Calero, J. A. (2020). Investigación en Educación Matemática: ¿Qué fue posible durante la pandemia? Presentada en el marco de la Conferencia Internacional de Educación Matemática, organizada por la SEIEM, SPIEM y SBEM y desarrollada de manera virtual el 14 de noviembre de 2020. Invited conference.

9. Villena, R., Merino, J.M., González-Calero, J.A., & Cózar-Gutiérrez, R. (2017). With a little help from my robots. Experiencia con estudiantes de 3º de EP el impacto del uso de robots en la motivación. XX Congreso Internacional EDUTEC. 8-10/11/2017. Santiago de Chile (Chile). Oral presentation with associated publication.

10. Soneira, C., González-Calero, J. A., & Arnau, D., (2017). An insight into the sources of multiple referents for the unknown in the algebraic solving of word problems. Presentado en Tenth Congress of the European Society for Research in Mathematics Education. Celebrado del 1 al 5 de febrero en Dublín, Irlanda. Oral presentation.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. Computational thinking: Digital skills for the 21st century from an inclusive and equitable gender and rural perspective (CT21FORALL) (TED2021-131557B-I00). Ministerio de Ciencia e Innovación.

01/12/2022-31/12/2024. Pls: José Antonio González-Calero y Ramón Cózar Gutiérrez (UCLM). 102.350€. Principal investigator.

2. Diseño e implementación de modelos de enseñanza basados en errores y en learning analytics (SBPLY/19/180501/000278). Proyectos de investigación científica y transferencia tecnológica 2018. Junta de Comunidades de Castilla-La Mancha y Fondo Europeo de Desarrollo Regional (FEDER). 01/01/2020-31/12/2022. IPs: José Antonio González-Calero y Ramón Cózar Gutiérrez (UCLM). 63.000€. Principal Investigator.

3. Laboratorio de integración de las TIC en el aula. Vicerrectorado de Investigación. Universidad de Castilla-La Mancha (2021-GRIN-31060). Convocatoria para la financiación de actividades de investigación dirigidas a grupos en el marco del Plan Propio de Investigación, cofinanciadas por el Fondo Europeo de Desarrollo Regional (FEDER). Grupos Consolidados. 28/01/2021 - 31/12/2022. IPs: Ramón Cózar Gutiérrez y José Antonio González-Calero (UCLM). 6.896,72 €. Principal Investigator.

4. Uso de sistemas tutoriales inteligentes para estudiar aspectos cognitivos y afectivos en la enseñanza y en el aprendizaje de la resolución de problemas verbales (PGC2018-096463-B-I00). Ministerio de Ciencia, Innovación y Universidades. 01/01/2019 – 31/12/2022. IPs: David Arnau y Miguel Arevalillo-Herráez (UV). 47.311 €. Investigator.

5. Modelo de enseñanza y de aprendizaje de las matemáticas: análisis racional y empírico (EDU2017-84377-R). Secretaría de Estado de Investigación, Desarrollo e Innovación y de la Presidencia de la Agencia Estatal de Investigación. 01/01/2018 – 31/09/2021. IPs: Ángel Gutiérrez y Bernardo Gómez (UV). 45.000 €. Investigator.

6. Laboratorio de integración de las TIC en el aula. Vicerrectorado de Investigación. Universidad de Castilla-La Mancha (2020-GRIN-28755). Convocatoria para la financiación de actividades de investigación dirigidas a grupos en el marco del Plan Propio de Investigación, cofinanciadas por el Fondo Europeo de Desarrollo Regional (FEDER). Grupos Emergentes. 27/02/2020 - 31/12/2020. IP. Ramón Cózar Gutiérrez y José Antonio González-Calero (UCLM). 7.177 €. Principal Investigator.

7. Diseño, desarrollo y evaluación de una App para promover el desarrollo de la Competencia Intercultural y Competencia TIC en docentes de Educación Superior (65923). Programa nacional de Ciencia, Tecnología e Innovación en Ciencias Humanas Sociales y Educación. Colciencias. Colombia. 01/01/2019 – 31/03/2020. IP. Carmen Ricardo Barreto (Universidad del Norte de Colombia). 153.431,82 €. Expert international scientific advisor.

8. Modelos de enseñanza y procesos de aprendizaje de las matemáticas: análisis multidimensional. (EDU2015-69731-R). Ministerio de Economía y Competitividad – Dirección General de Investigación Científica y Técnica. 01/01/2016 – 31/12/2018. IPs. Luis Puig y Ángel Gutiérrez (UV). 20.000 €. Investigator.

9. Aprendizaje de la resolución de problemas matemáticos en entornos tecnológicos en infantil y primaria (GV/2019/146). Consejería de Investigación, Cultura y Deportes de la Comunidad Valenciana. 09/07/2019 – 31/12/2020. IP: Pascual D. Diago (UV). 8.000 €. Investigator.

10. Modelos de enseñanza y competencia en la modelización y resolución de problemas aritmético-algebraicos: Análisis histórico y uso de entornos interactivos de aprendizaje (EDU2012-35638). Ministerio de Ciencia y Tecnología. Dirección General de Investigación. 01/01/2013 – 31/12/2015. IP: Luis Puig (UV). 26.000 €. Investigator.

C.4. Contracts, technological or transfer merits,

1. Collaboration agreement with the Department of Education, Culture, and Sports of the Regional Government of Castilla-La Mancha. Validation of Teacher Digital Competence Questionnaires. Principal Investigator.

2. Diseño, desarrollo y evaluación de una App para promover el desarrollo de la Competencia Intercultural y Competencia TIC en docentes de Educación Superior (200163UCTR). Fundación UniNorte. Art. 83. 4629,68 €. Principal Investigator.

3. Aprendemos “Enter” – Culturas: A un click de la cohesión social intercultural (¡Dale a la tecla!). Programa de ayudas a proyectos de iniciativas sociales. Convocatoria de Interculturalidad y Acción Social 2019. Fundación “la Caixa”. 02/09/2019 – 31/12/2021. IP. Isabel Gómez Barreto (UCLM). 16.300€. Investigator.

4. La resolución de problemas en matemáticas. Una transición natural entre infantil y primaria. Compañía de las Hijas de la Caridad de San Vicente de Paul. Art. 83. 300,00 €. Principal Investigator.