	Xenia Vamvakoussi	
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RETERIO DISSIS	Research topics (related to the Institute)	
	1. Development, learning, and teaching of number concepts	
	2. Develo	poment of mathematics-related reasoning
	3. Mathe	matical knowledge for teaching
	Research summary	
Education	Conceptual	change in the transition of natural to rational numbers
	• The natural number bias and its effects on learning and reasoning	
Degree: PhD in Basic and	on rational numbers	
Applied Cognitive Science	 Conceptual and procedural knowledge of rational numbers 	
Year : 2004	 Analogical reasoning and the use of analogies in instruction 	
Institution: Department	• Early multiplicative reasoning: Development and instructional	
of History and Philosophy	support	
of Science, NKUA	• In service and prospective educators mathematical knowledge for	
,	teaching	
Degree: Msc in Didactics	Professional background	
and Methodology of	2019- todav	Associate Professor. Dept. of Early Childhood
Mathematics		Education. Uol
Year: 1998	2014 – 2019	Assistant Professor. Dept. of Early Childhood
Institution: Department		Education, Uol
of Mathematics, NKUA	2012 –2014	Lecturer, Dept. of Early Childhood Education, Uol
	2010 –2011	Visiting Lecturer, Dept. of Education, UCY
Degree: B.S. in		
Mathematics	Post-doctoral research experience:	
Year : 1994	2009-2010 Centre for Instructional Psychology and Technology,	
Institution: Department		Katholieke Universiteit Leuven, Belgium, personal
of Mathematics, NKUA		grant F+ Fellowship (3H090299), Lab Director: Prof.
		Dr. Lieven Verschaffel.
	2007-2009	Laboratory of Basic and Applied Cognitive Science,
		Department of History and Philosophy of Science,
		NKUA, project Humans: The analogy making species
		(ANALOGY), funded by the FP6 NEST Program of the
		European Commission. (STREP Contr. 029088),
		Principal Investigator: Prof. Stella Vosniadou.
	2004-2006	Laboratory of Basic and Applied Cognitive Science,
		Department of History and Philosophy of Science,
		NKUA, project Pythagoras I (70/3/7422), funded with
		75% contribution from European Social Funds and
		25% contribution from National Funds, Principal
		Investigator: Prof. Stella Vosniadou.

Indicative publications

1. Vamvakoussi, X., Bempeni, M., Poulopoulou, S., & Tsiplaki, I. (2019). Theoretical and methodological issues in the study of conceptual and procedural knowledge: Reflections on a series of studies on Greek secondary students' knowledge of fractions. *Educational Journal of*

the University of Patras UNESCO Chair, 6(2), 82-96.

- 2. Vamvakoussi, X., Christou, K.P., & Vosniadou, S. (2018). Bridging psychological and educational research on rational number knowledge. *Journal of Numerical Cognition*, 4(1), 84–106.
- 3. Vamvakoussi, X. (2017). Using analogies to facilitate conceptual change in mathematics learning. *ZDM Mathematics Education*, *49*(4), 497-507.
- 4. Vamvakoussi, X. (2015). The development of rational number knowledge: old topic, new insights. *Learning & Instruction*, *37*, 50-55.
- 5. Bempeni, M., & Vamvakoussi, X. (2015). Individual differences in students' knowing and learning about fractions: evidence from an in-depth qualitative study. *Frontline Learning Research*, *3*(1), 17 34.
- 6. Vamvakoussi, X., Van Dooren, W., & Verschaffel, L. (2013). Educated adults are still affected by intuitions about the effect of arithmetical operations: evidence from a reaction-time study. *Educational Studies in Mathematics*, *82*(2), 323-330.
- 7. Vamvakoussi, X. & Vosniadou, S. (2012). Bridging the gap between the dense and the discrete. The number line and the "rubber line" bridging analogy. *Mathematical Thinking and Learning*, *14*, 265–284.
- 8. Vamvakoussi, X., Van Dooren, W., & Verschaffel, L. (2012). Naturally biased? In search for reaction time evidence for a natural number bias in adults. *Journal of Mathematical Behavior*, *31*, 344-355.

Number of publications, 107(19-12-2020) Number of citations: 1.811 (Scholar 19-12-2020) h factor = 16 (Scholar 19-12-2020)

Recent Research projects / grants (last 5 years)

2018-2019 "Exploring the relation between individual differences in conceptual and procedural knowledge of rational numbers, and the individual's learning approach to mathematics: development and validation of research instruments", PA 2014-2020, OP Human Resources Development, Education and Lifelong Learning, co-funded by the European Union and National Funds. Principal Investigator: X. Vamvakoussi.