Editorial

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We are pleased to present the three articles that make up the first issue of volume 44, which are highly diverse in a number of ways. Firstly, there is the diversity of the topics covered and the education systems considered: interdisciplinarity in mathematics and physical sciences in Greece, the teaching of multiplication in France, and a comparative study of the teaching of quadratic functions in five countries (Brazil, France, Japan, Spain and Vietnam). Secondly, the theoretical approaches used in this work are the Theory of Joint Action in Didactics, the Anthropological Theory of Didactics and the Theory of Didactic Situations. Finally, the three languages in which the journal is published are represented: French, Spanish and English.

The article by Konstantin Grivopoulos, a Greek researcher, examines the curricular and institutional conditions for interdisciplinary teaching of mathematics and the physical sciences. By studying the treatment of the concept of the parabola in the Greek high school curriculum, he highlights the breaks between mathematical and physical science ways of thinking. The a priori analysis of problem solving such as 'calculating the position of a projectile' highlights the possibility of cross-curricular treatment in the lycée class.

The South American and Spanish team made up of Dilma Fregona, Analía Petich, Marta Porras and Pilar Orús Báguena has taken up the seminal work of Guy Brousseau and

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COREM—Centre pour l'Observation et la Recherche sur l'Enseignement des Mathématiques—on multiplication. The aim of this article is twofold. It is a valuable contribution to the systematic and orderly dissemination of the resources developed by COREM, implemented at the École Michelet and available in the Guy Brousseau collection. Also, the authors show how the analysis and interpretation of a didactic engineering linked to division makes it possible to produce new knowledge and to design an engineering dealing with the multiplication algorithm. We had already been working on this article for some time when the community learned of Guy Brousseau's death on 16 February 2024. This article is a way of paying tribute to him and reminding us how much his work still means to our community.

Hamid Chaachoua, Annie Bessot, Berta Barquero, Julia Pilet, Tatsuya Mizoguchi, Danielly Kaspary and Nguyen Ai Quoc have formed an international team to carry out a comparative study of five curricula for teaching the algebraic solutions of quadratic equations at secondary level. The analyses of these curricula and of some of the textbooks from these countries are conducted in terms of didactic choices and specific or non-specific conditions and constraints. They reveal that there seems to be a single and common purpose for solving quadratic equations in all five countries. This article also has a more general methodological value, in that it compares different education systems on the basis of the same praxeological reference model.

You will also note that this is the first issue published online on the Episciences platform. We hope that you will appreciate the ease of access offered by this new medium. The annual volume will continue to be published in hard copy by our long-standing publisher *La Pensée Sauvage*. Whether on screen or in print, we hope you enjoy reading it!