

Editorial

This is issue 1 of volume 12 of the journal *Educação Matemática Pesquisa*, the first of three volumes in 2010. Each finished volume of a scientific journal in Mathematics Education in Brazil reveals the work of mathematics educators who produced the articles and provided opinions, in addition to those of the editors. It is also a proof of the vitality of this area. The rigor of the evaluation of the articles accepted by *Educação Matemática Pesquisa* guarantees their quality. Seven articles are included in this issue, with a variety of topics: modeling; collaborative work; a proposal for teaching mathematics; learning styles; teaching algebra; and students interpretations' of the idea of recurrence.

The first article, by Beltrão and Iglioni, presents a study about the use of modeling and applications of mathematical concepts in teaching Calculus for a college technology course, specifically for the case of functions. The authors offer a proposal for implementing these approaches via phases, in order to deal with difficulties generated by the institutional requirements that drive the course, and for making the approaches viable in the development of the course. The results show the advantage of using the approaches in the students' involvement in the learning.

The second article, by the researchers Fernandes, Carvalho and Fernandes de Carvalho, deals with the influence of the collaborative work of two mathematics teachers in teaching combinatorics, indicating an opportunity for the two teachers to structure and question their conceptions and teaching practices. The analysis and reflection performed revealed the importance placed by the teachers on exploratory tasks and on the spontaneous strategies of the students, as well as a form of perceiving faulty ideas presented by the students.

In the article by Flores, a proposal for teaching mathematics that was implemented in a Mexican school in 1998 is presented. It is a proposal in which the students work collaboratively, with tolerance, respect, and responsibility. The article discusses the main characteristics of the proposal and its theoretical and philosophical foundations.

Frota brings us results of a study that characterizes mathematical learning styles of university students in the area of Applied Social Sciences. These styles reinforce the importance of adopting diversified educational practices in higher education mathematics classes, encouraging the development of profiles of mathematical learning styles among university students.

In the fifth article, Herminio and Borba develop an outline of a theoretical framework of the notion of interest based on the works of Dewey and Schutz. They justify this approach by the fact that many authors indicated student interest as the central reason for using Modeling. Herminio and Borba point out the consequences of these reflections for Modeling, and indicate research that can be developed.

The article by Telles discusses how knowledge of the algebraic field can influence the resolution of situations that involve formulas for area, based on the analysis of correct and incorrect procedures in questions taken from mathematics textbooks. The author aims to contribute to the formulation of efficient didactic situations for teaching and learning Mathematics.

In the seventh and final article, Santos, Buriasco, and Ferreira present some methods for primary and secondary school students to interpret the idea of recurrence present in the second sentence of a discursive mathematics problem, based on the analysis of 96 tests. This study revealed that the students, in large part, interpreted and used this idea guided by their interpretation based on only the first sentence of the problem statement, which interfered in the elaborated strategies.

The abstracts and keywords of the dissertations and theses defended in the Post-Graduate Studies Program in Mathematics Education in the first quarter of 2010 complete the volume.