

## Editorial

This is number 1 of volume 9 for the year 2022 of the journal *Ensino da Matemática em Debate*, a journal of the Graduate Studies Program in Mathematics Education at PUC-SP. This issue presents a report of experiences and six academic papers, including one published in its original version, in French.

The first paper is entitled “Brazilian educational legislation aimed at teachers at the beginning of their careers and its impacts on initial teaching action”, authored by Francisco Jeovane do Nascimento, Professor of the Ceará state education system (SEDUC/CE), Eliziane Rocha Castro, Coordinator of the Nucleus of Continuing Education of the Municipal Secretariat of Education of Raposa/MA (NUFOC/SEMED), Luciana Rodrigues Leite, Assistant Professor of the Chemistry Degree Course of the State University Vale do Acaraú (UVA/CE), Rita de Cássia do Nascimento, Teacher of the Ceará state education system (SEDUC/CE), and Maria Socorro Lucena Lima, Professor and Researcher at the Graduate Program in Education of the State University of Ceará (PPGE/UECE). The paper is based on a documental analysis supported by a qualitative perspective and guiding theoretical subsidies to investigate the existence of elements designed to contribute to the initial phase of a teacher's career in the national legislature, as well as to analyze the viability of such elements in stimulating teachers to develop professionally. The research highlights the relevance of creating public policies aimed at the professional insertion of teachers, focusing on the knowledge of the complexity that guides the school environment.

Edna Machado da Silva, Professor of SEDUC-PA and Administrative Technician in Education at UFPA Miguel Chaquiam, Professor of the Department of Mathematics (DMEI-UEPA) and PPGEM-UEPA and Natanael Freitas Cabral, Professor of the Department of Mathematics (DMEI-UEPA) and PPGEM-UEPA, wrote the second paper, entitled “A methodological path for the constitution of didactic sequences: the teaching of the concept of function. The goal was to investigate the potential of a didactic sequence for teaching the concept of function guided by the following question: Do the activities of a didactic sequence, structured according to the Articulated Units of Conceptual Reconstruction, enhance the process of teaching and learning the concept of function? The results mark the evolution in the students' conceptions, the overcoming of obstacles, and collaborative learning, in addition to the perception of regularities and generalizations around the object of study.

*ONLINE COLLABORATIVE LEARNING IN TEACHING TRAINING AND PRACTICE*: “Experiences of programming and computational thinking to learn mathematics using Scratch” is the third paper in this issue. It is authored by Luciana Leal da Silva Barbosa, Professor at the Federal Institute of São Paulo, Campus of Birigui, Sandra Alves de Oliveira, Math Teacher at Colégio Municipal Aurelino José de Oliveira, Candiba, Bahia, Débora Pelli, Professor at the Federal University of Vales do Jequitinhonha and Mucuri (UFVJM), Campus JK, Diamantina, Minas Gerais, Eliane Santos Alves, Municipal teacher in Porto Seguro, Bahia, Thiago Neves Mendonça, Professor at the Federal Institute of Education, Science, and Technology of Minas Gerais (IFMG), Ouro Preto, Minas Gerais. This paper aimed to investigate the experiences of four student-teacher-researchers using programming articulated with computational thinking for teaching-learning mathematics in

their education and teaching practice. For data production, we used the records of the workshop "Together, in online collaborative learning contexts, to learn Mathematics and computational thinking using Scratch", held in the second semester of 2020, with a duration of 20 hours, and the elaboration of narratives by the four participants about the Scratch programming environment. This programming environment is a tool that can be used to favor the teaching and learning process of Mathematics and Computational Thinking, among other areas of knowledge, from a dialogical and problematizing perspective.

The fourth paper is entitled "Contributions of children's literature to mediate the understanding of the notion of measurement in the early years of elementary school" and is authored by Wagner Marcelo Pommer, Professor at the Federal University of São Paulo, Graduate Program in Science and Mathematics Teaching (PECMA). It reports that the National Curricular Parameters (Brazil, 1997) and the Common National Curricular Base (Brazil, 2017) highlight that the theme 'Quantities and Measures' presents strong social, cultural, scientific, and performance relevance for the professional field. The research aimed to verify if, how, and to what extent the narrative text from literature books can contribute to mediate the understanding of the notion of measurement in the 5<sup>th</sup> grade of elementary school. Our theoretical framework was based on Feriguetti; Lucas (2011) and Machado (2011). The methodology consisted in choosing a text from literature for pre-adolescents and applying an activity situated on the adventures of the main character of the action in the children's social environment. The author realized that children qualitatively experienced, by using analogies, the essence of the mathematical notion of the operation of measuring by making comparisons between some characteristics of the characters in the narrative.

Bruna Larissa Cecco, Math Teacher at the Federal Institute Farroupilha – campus of FW and Luci T. M. dos Santos Bernardi, Professor at the Graduate Program in Education of the Integrated Regional University of Alto Uruguai and das Missões (URI), Frederico Westphalen are the authors of the fifth paper, entitled "Mathematical Literacy: perspectives and meanings in the Brazilian context". The research aimed to highlight the perspectives brought by national documents about mathematical literacy over the last 25 years and discuss the different terminologies and meanings assigned in the Brazilian educational context. Of theoretical nature, this is a bibliographic research that especially examined the National Curricular Parameters, the National Common Curricular Base, and the National Literacy Policy. In this development, we identified the terms mathematical literacy, numerical literacy, and numeracy and the meanings attributed to them, as well as the influence of international organizations such as OECD and UNESCO, characteristics of the globalization process. We infer that the discontinuity of nomenclature in official documents weakens the term and implies the ephemerality of practices by schools and teacher training courses, in addition to the need for theoretical advance on the theme in dialogue with practices and knowledge of teachers.

We end the first issue of volume 9 with the sixth paper, by Tunisian authors, published in French, the authors' original language. The paper presents a double approach, the mathematical and the didactic one on the Taylor-Young formula, and is authored by Rahim Kouki and Imed Kilani, from the Université Virtuelle de Tunis, Institut Supérieur de l'Education et la Formation Continue, ECOTID. The paper is entitled "Syntactic and semantic perspectives of the Taylor-Yong formula" and is the result of a research on the training of entrance examiners to engineering courses in Tunisia. It allowed us to show the illusion of transparency of this

formula and revealed its syntactic complexity. The curricular analysis that guided the authors allowed them to identify the slowness, both in the official programs and in the knowledge prepared by the teachers, of perceiving the reality of the semantic aspects that the formula conceals.

In addition to these six papers, the first issue of 2022 also includes an experience report, which we have summarized as follows.

The report is entitled “GeoGebra Notes: a dynamic resource for teaching mathematics”, authored by Jeferson Moizés Lima and Valdir José Corrêa Junior. The experience was lived by a high school mathematics teacher using GeoGebra Notes. They share how this tool can be explored in face-to-face and remote classes, as well as its potential and limitations in mathematics teaching, specifically in an activity about analytic geometry. The use of GeoGebra Notes has provided an environment that supports collaborative discussions, allowing students, whether face-to-face or remotely, to play an active role in the communication process during the lesson, generating opportunities for knowledge restructuring during social interaction and feedback provided by the students themselves.

At the end of this Editorial, we would like to apologize to our authors for the delay in publishing this issue, which was unintentionally caused by the difficulties resulting from the pandemic. From now on, everything should be back to normal. We hope!

We wish to register the inestimable collaboration of Marcio Vieira da Almeida, for many years, to this journal. We wish him much success in his journey as a mathematics education researcher.

We are now joined by Maria José Ferreira da Silva, Professor of the PEPG in Mathematics Education at PUC-SP, as Editor, and Vanderson Menezes Sezino, doctoral student of the same program, as a collaborator. Their support for this difficult and responsible work is essential for the maintenance of this quality Brazilian journal. We stand together!

Sonia Barbosa Camargo Iglioni

Editor of the Journal Ensino da Matemática em Debate