

## Editorial

When it comes to GeoGebra, the journal of the International GeoGebra Institute of São Paulo (IGISP) is, undoubtedly, the most read journal in Brazil. Those interested in learning about research or activities that explore GeoGebra in teaching situations, most likely seek this journal before consulting another journal. Perhaps this is due to the fact that she has been publishing research results related to GeoGebra since 2011. In a way, we can say that the history of experiences with GeoGebra in Brazil has been told, implicitly, also in this journal. Each of the authors who published their articles in the journal contributed a little to tell and make this story. To all of them our thanks!

In this special issue we would like this story to be told more explicitly. Of course, it would not be possible to make an issue with all the authors who have already published in the magazine telling their stories with GeoGebra. Thus, we invite authors who, in some way, have representation and recognition within the GeoGebra community in Brazil for the work they have been developing with the software.

We guided the authors to write a text that, in some way, told their story with GeoGebra. The reader will notice that these stories were told in different ways, but something in common to all the texts was the fact that the story was told through examples of works that the authors developed. The reader will also notice how the stories of some of the authors have "points of intersections" between them.

This special edition has ten texts that we will briefly describe below.

The first text whose title is "*Conversation with Prof. Humberto Bortolossi*" brings the transcript of a conversation we had with what, we consider, to be one of the greatest references in Brazil when it comes to GeoGebra. Certainly, he should also be a guest author to write an article for this issue. However, at the time this issue began to be produced, Humberto was not in a position to write. So we chose to have an online conversation with him and transcribe it.

The following texts are articles. In the first article "*Experiences of work orientation with GeoGebra*" the author Aroldo Eduardo Athias Rodrigues talks about the experiences, involving GeoGebra, orientations of conclusion's course work and in disciplines of the Professional Master's Degree in Mathematics in National Network – Profmat. Through these experiments he shows examples of activities involving the Apollonius problem, construction of truncated polyhedra, trigonometry and games.

In the second article "*GeoGebra's potential as a tool to aid visualization skills*" the author Carmen Vieira Mathias presents examples of activities for higher education, involving geometry, linear algebra and calculus. These activities address, with the help of GeoGebra, Wordless Proofs, Dynamic Visualization, 3d Printing and Geometric Constructions. Throughout the text, the reader may perceive some references that deal with the visualization that the author uses to produce activities and do research.

In the third article "*Digital and physical: integrating resources with GeoGebra for creative practices in learning spaces*" the author Diego Lieban brings examples of activities that involve the use of GeoGebra integrated with laser cutting machines or 3D printer to produce games, puzzles and problem solving. It also brings brief reports of presentations of papers at international events in which important researchers were present, such as Anthony OR, Chris Cambré and Rafael Losada. The reader can also find several indications of references that deal with STEAM Education and Maker Culture.

In the third article "*Between the digital and the physical: integrating resources with GeoGebra for creative practices in learning spaces*" the author Diego Lieban brings examples of activities that involve the use of GeoGebra integrated with laser cutting machines or 3D printer for the production of games, puzzles and problem solving. It also brings brief reports of presentations of papers at international events in which important researchers were present, such as Anthony OR, Chris Cambré and Rafael Losada. The reader can also find several indications of references that deal with STEAM Education and Maker Culture.

In the fourth article "Collaborative interaction and broadening of cultural horizon as formative assumptions for a GeoGebra course" the author Guilherme Francisco Ferreira talks about the GeoGebra course that is offered in partnership by UNESPAR and UNEMAT. He reports some situations that occurred during the course, showing how the assumptions of Romulo Lins' Semantic Fields Model subsidize the formation.

In the fifth article "A little bit of my history with GeoGebra and some examples of activities" the author Jorge Cássio Costa Nóbriga reports his involvement with GeoGebra, going through undergraduate, master's, doctorate, to the present day. He shows how he was appropriating the theories that were related to the use and research of educational software, such as GeoGebra, in teaching situations. He brings examples of activities involving Geometry, Trigonometry, Functions and Linear Systems, showing how theories are contemplated in them.

In the sixth article "*Thinking and solving problems with GeoGebra*" the author Sérgio Carrazedo Dantas explores the resolution of Geometry problems with GeoGebra. He also shows how to explore, with the help of GeoGebra, a problem involving CPF numbers from the perspective of Computational Thinking. The reader can find good indications of references that address Problem Solving, Computational Thinking and Educational Informatics.

In the seventh article "*Exploration of various Geometries using GeoGebra*" the author Valdeni Soliani Franco reports several of his works that involved the research and training of teachers related to the use of GeoGebra for the teaching of Geometry. He presents examples

of activities that explore Euclidean and non-Euclidean geometries: geometric constructions, fractals, Poincaré and Klein models, Desargues' theorem, among others.

In the eighth article "*Maturing as a teacher, researcher and collaborator with GeoGebra*" the author William Vieira Gonçalves talks a little about his training, showing how he was appropriating the use of new technologies for the teaching of mathematics. He also talks about the GeoGebra course, showing in more detail how it has been developed. He highlights the Youtube channel Ogeogebra and indicates some research that was generated from the GeoGebra course. The reader will also be able to see some examples of activities that explore the CAS window of GeoGebra.

In the ninth article "*From Experimental Mathematics to a didactic tool: the role of GeoGebra in the professional development of basic education teachers*" the author Yuriko Yamamoto Baldin presents some of her works that involve the production of didactic materials, teacher training and presentations at events involving the use of educational software and mathematics teaching. The reader will also be able to see some of the theoretical references that subsidize the production of materials and research of the author.

Finally, we suggest to you reader, to enjoy each shared experience and also access the various links with materials shared by the authors, such as constructions in GeoGebra, texts, videos, among others.

We wish you a great read with excellent moments of producing new meanings about GeoGebra, about mathematics and, above all, about new practices of applying, learning and teaching mathematics.

Editores Jorge Cássio Costa Nóbriga Sergio Carrazedo Dantas