



EDITORIAL

FIELD EDUCATION: CONTRIBUTIONS FROM MATHEMATICS AND TECHNOLOGICAL EDUCATION

The Iberoamerican Journal of Mathematics and Technological Education - EM TEIA (n. 1, v. 5, 2014) brings to the public a set of texts that aims to contribute to broadening and deepening the discussion of studies that investigate aspects of mathematics education and technological education developed within Field Education.

Field Education is the result of processes of struggles and debates that involve various sectors of the Brazilian society. Therefore, the people of field include a great range of groups who live in different kinds of contexts and productive activities, such as: riversiders, African slave decedents, indigenous, fishers, family agricultural holders, salaried rural workers and landless people. Despite legal documents that recognize it as governmental policy, Field Education fails to gain due recognition by leaders, managers, researchers and the majority of teachers in all levels of education.

In order to value field people as they deserve, and to enable them so that they can fully practice their citizenship rights. It is critical we propose effective actions to face the challenges within this Field. Thus, while recognizing that the Field has many possibilities, it is important to simultaneously recognise the difficulties and limitations associated with schooling processes of Field Education.

Specifically seeking to contribute to the discussion of mathematics education in contexts of Field Education, and under the coordination of Professor Carlos Eduardo Monteiro, a Research Project was commenced in 2006. The focus of this project was the conceptualization of resource use in teaching mathematics in public schools located in Field areas. The project ended in 2007, however in 2008, with the support of the Post-Graduation Program in Mathematics Education and Technology (EDUMATEC) UFPE, the GPEMCE (Group for Research in Mathematics Education in Contexts of Field Education) was founded. Since then GPEMCE has been developing research and events

related to this topic of study and is a key instigator of the publication of this thematic issue.

Once more supported by EDUMATEC, a call for papers was released and we received proposals from authors from various institutions of higher education, graduate programs and research centres, national and international. At the end of the review and editorial process, there were a total of 13 papers accepted for this special issue of EM TEIA. In the following section, we provide an overview of the papers as they appear in the issue.

In the article of **Línlya Barbosa, Diego Carvalho and Henrique Elias**, entitled **THE RELATIONSHIPS ESTABLISHED BETWEEN FIELD DAILY LIFE AND MATHEMATICS CLASS: analysis of scientific production in 10 editions of the National Conference on Mathematics Education**, it is argued that the analysis of specific scientific papers in the area of investigation is scant and presents a diversity of approaches to valuing the connection between the everyday lives of Field people, and mathematics classes.

Claudia Duarte, in her article entitled **INTERLOCUTIONS BETWEEN FIELD EDUCATION AND ETHNOMATHEMATICS**, reflects on the favourable conditions that are offered by Field Education for the development of ethnomathematics experiences. However, the author argues that it necessary that field conceptions do not be subordinated to academic rationality.

Two articles specifically address the processes of teaching and learning in Mathematics Education for Youth and Adults (EJA). **Valdenice Leitão and Maria da Conceição Fonseca**, in their article **SOLIDARITY IN THE EMPLOYMENT CONTEXT: numeracy practices as tactics of resistance of rural students of EJA**, investigate the solidarity understood by the participant to be a tactic of resistance to dehumanizing action. They argues that this position is related to the imposition of modes of production on the students of the EJA who are residents of a field area called Jua, Pernambuco, Brasil. In the article: **THE CURRICULUM OF MATHEMATICS IN YOUTH AND ADULT EDUCATION OF GUARANI PEOPLE**, the authors **Gabriela Barbosa and Sandra Magina** discuss aspects of the schooling program for the Guarani indigenous group, developed with the Sapukai Indian Village, located in the backwoods of Bracuhy, South Rio de Janeiro.

In order to contribute to the understanding of the challenges associated with Field Education, three articles focus on more specific experiences of teaching and learning of mathematics. In the article, **A LOOK INTO THE PRACTICE IN THE CLASSROOM OF THE MATHEMATICS TEACHER OF SEMIARID PARAÍBA SCHOOL**, **Marcus Bessa** presents elements of research into the reflections on the influence of the specific contexts of Field Education in which the teaching of mathematics is developed. In the article entitled **TEACHING STATISTICS IN FIELD SCHOOLS: contributions of teaching through the reality of learners of a 6th grade of elementary school**, **Luciana Boemer** and **Guataçara dos Santos** discuss aspects of a study in a field school of Paraná, and analyse the relevance of opportunities for reflection on statistical concepts in the context of the everyday life of field people. In the article **MATHEMATICS FOR BEYOND THE TEACHING AND LEARNING OF RULES: everyday experience of field workers**, **Platiny Santos**, **Simone Santos** and **Maria Natividade Câmara**, analyse the mathematical knowledge produced and practiced by field workers.

Two articles specifically address aspects of the use of technology in teaching and learning in the Field Education. In the article **THE TECHNOLOGIES PUBLIC IN A PUBLIC FIELD SCHOOL: a pedagogical challenge**, **Daniela Pedra Mattos** discusses aspects of the implementation of a multimedia lab, including limits and possibilities of computer use in the context of a field school. In the theoretical essay entitled: **EDUCATION AND MATH EDUCATION FIELD: a possible curricular integration with educational technologies**, **Vitor de Moraes** approaches political and ideological elements related to the topic.

This edition also had contributions from international researchers that brought important debates for broadening the perspectives of the teaching and learning in Field Education, based on theoretical and methodological aspects from their research approaches in other countries. **Robyn Jorgensen** and **Tom Lowrie**, in their article entitled **MATHEMATICS EDUCATION IN RURAL AUSTRALIA: issues for equity and success**, bring to the debate a reflection on the contrast between the relative equal supply of resources in schooling in Australia and the likelihood that students from rural areas to have poorer performance in Mathematics than their urban peers. From Denmark, **Bernhelm Booß-Bavnbek** presents a theoretical essay entitled **ON THE**

DIFFICULTIES OF ACQUIRING MATHEMATICAL EXPERIENCE: The rural education case. The author builds on different theoretical approaches in Pure and Applied Mathematics and analyses the basic difficulties of acquiring "Mathematical Experience" on Field Education. **Mônica Mesquita** (Portugal), **Alexandre Pais** (Denmark and England) and **Karen François** (Belgium) discuss the challenges of the Urban Frontiers Project in the article **COMMUNITARIAN MATHEMATICS EDUCATION: walking into boundaries.** The authors discuss important aspects of the interface of mathematics education in contexts of boundaries, based on concepts such as critical participation, Ethnomathematics, violence and urban boundaries. From France, **Nadja Acioly-Régner** contributes with the article **HOW TO TRANSLATE THE WAY OF DONKEY IN A THEOREM IN ACTION:** Analysis of contextualized mathematical knowledge situations in the light of the theory of conceptual fields. The author elaborates the discussion from the perspective of the Psychology of Mathematics Education, focusing on situations of out-of-school knowledge and links this to actors of field contexts.

Three articles were also part of the construction process of this thematic issue, although they have been published at number 3 volume 4, 2013 of this journal. **Aldinete Lima** and **Iranete Lima** are the authors of the theoretical essay **MATHEMATICS EDUCATION AND FIELD EDUCATION: Challenges and possibilities of a joint articulation**, which starts from the premise that mathematics should be taught from the perspective of social transformation and considering the history of education. The authors also highlight the struggles of people of the field and their place of belonging and production cycles in relation to other defining elements of the specific school involved in their study. In the article **PERCEPTIONS AND EXPECTATIONS OF MATHEMATICS AND SCIENCE TEACHERS OF THE PROJÓVEM FIELD PROGRAM – LAND KNOWLEDGE**, **Glória Cavalcanti** and **Luciano Cavalcanti** discuss a study with 71 teachers in the areas of Mathematics and Science of Nature, in the ProJovem Field Program – Land Knowledge, developed in the State of Pernambuco, Brazil. **Juliano Faria** is the author of **ETNOMATHEMATICS AND RURAL EDUCATION: Over to you, José.** In this paper Juliano discusses aspects of Foucault's theories that can be related to Ethnomathematics, especially with regard to the entry of

mathematical discourse as something that can operate to reinforce the legitimacy of academic mathematics.

We hope that this thematic issue can support reflection and debate, as well as promote effective actions to improve the education of field populations.

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Editors of this thematic issue