

“una empresa docente:” A Teaching Enterprise

“una empresa docente” is a research center in Mathematics Education of the University of los Andes, in Bogotá, Colombia. It was created ten years ago, and it is now part of Science Faculty of the University. Its mission is to support the process of improvement of the teaching and learning of school mathematics in the country through the empowerment of the Colombian system of Mathematics Education. This process of empowerment is envisaged as a process of change of the different actors involved in the process: teachers, administrators and institutions, through the implementation of reflexive innovations at the curriculum level. In order to attain this mission, “una empresa docente” has four main strategic areas of work: curriculum innovation, research, teacher training and infrastructure development.

“una empresa docente” developed, during its first five years of existence, a curriculum innovation project in the area of mathematics for the social sciences. As a result of this project, we published several textbooks and a set computer programs that was awarded the first prize in research in technology for teaching three years ago. More recently, “una empresa docente” began working in the use of technology in the teaching of mathematics through its projects on the use of graphic calculators for the teaching of precalculus and statistics.

There are two main lines of research in “una empresa docente”. On the one hand, we have been working for some time in technology and mathematics education. In particular, we have been doing research on the use of graphic calculators for the teaching and learning of precalculus, the teaching and learning of statistics and the use of the software Cabri for the teaching and learning of geometry. On the other hand, we have developed a line of research in teacher training and the institutional factors affecting school mathematics.

In teacher training, “una empresa docente” introduced four years ago a new scheme, substantially different from those in existence in the country. Going away from the traditional short-term, information centered programs of teacher training, “una empresa docente” started long-term programs based on two principles: the importance of the institutional aspect of the teaching of mathematics, and the need of working on teachers and administrators visions and questioning as the basis for enabling teachers, administrators and students to enter in reflexive curriculum innovations that can empower a process of change. We have developed several teacher training programs of this type.

The empowerment of the Colombian Mathematics Education System will not be possible unless teachers, administrators and researchers have the means to access to information and resources that can enable them to deepen their knowledge and produce and evaluate innovations. “una empresa docente” has been conscious of these requirements. That is why, it is also a publisher of books in Mathematics Education. Five years ago, “una empresa docente” created the first Mathematics teachers association in the country, in order to give support to their work and foster the communication and discussion among them. Furthermore, “una empresa docente” created two years ago the first Colombian Mathematics Education Journal, Revista EMA. Finally, “una empresa docente” has created the first complete Spanish Internet server in Mathematics Education.

“una empresa docente”

Universidad de los Andes

Apartado Aéreo 4976

Bogotá

Colombia

<http://ued.uniandes.edu.co/>

Researchers of “una empresa docente”:

Margarita de Meza, director, mbotero@uniandes.edu.co

Cristina Carulla, mcarulla@uniandes.edu.co

Luisa Andrade, landrade@uniandes.edu.co

Patricia Perry, pperry@uniandes.edu.co

Felipe Fernández, fefernan@uniandes.edu.co

Mauricio Castro, mcastro@uniandes.edu.co

Pedro Gómez, pgomez@uniandes.edu.co

On temporary leave:

Vilma María Mesa, vmesa@sage.coe.uga.edu

Paola Valero, paola@dlh1.dlh.dk
Cristina Gómez, cgomez1@students.wisc.edu