Colloquium de mathématiques et enseignement des mathématiques

Semiotic mediation in the mathematics classroom
A scientific journey from the Italian tradition of mathematical laboratory to the challenge of a multicultural "transposition"

Mariolina Bartolini Bussi

Pr Università di Modena e Reggio Emilia

This lecture has been designed to report on a scientific journey, lasted some decades.

• In the first part of this lecture I shall present the main elements of the approach to semiotic mediation in the mathematics classroom, as developed by Bartolini Bussi and Mariotti (2008), focusing mainly on the activity in the mathematical laboratory, when real manipulatives are handled by students, according to an acknowledged Italian tradition. The different trickles that flew into the theoretical constructs will be shortly outlined (Bartolini Bussi, 2009), together with the application to teacher education (Bartolini Bussi & Maschietto, 2008).

• In the second part of this lecture I shall present the new challenge of considering mathematics education as a multicultural field (Bartolini Bussi & Martignone, 2013; Bartolini Bussi, Baccaglini-Frank & Ramploud, 2014), where contributions from many different countries and regions, with different institutional constraints, cultures of schooling and of educational research and, even, of mathematical activity must be taken into account. Has the approach to semiotic mediation the potential to meet this challenge and to embrace this issue too?
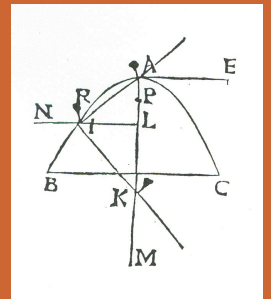
The examples will be mainly taken from the early approach to mathematics in primary school, that has now come into the limelight: it is worthwhile to highlight the fact that for the first time in its centennial history ICMI has launched a study on the teaching and learning of whole numbers in primary school.

Références bibliographiques : http://www.cfem.asso.fr/actualites/colloquium_ARDM-CFEM_2014

Vendredi 7 novembre 2014
14h - 16h
Université Paris Diderot – Bâtiment Sophie Germain
Amphi Turing (rez de chaussée)

https://www.math.univ-paris-diderot.fr/ufr/acces