

## CABRI-GEOMETRE: TWO WAYS OF SEEING IT AND USING IT

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At the PME25 I gave a talk about a preliminary analysis of two case studies of my ongoing PhD. At this PME I would like to discuss and share the final analysis of them as I have completed my doctoral studies.

Here, both theoretical and empirical support to a view on secondary mathematics teachers' use of Cabri is presented. In particular, I argue that the use of a software package for teaching is not only linked to the school curriculum but also strongly linked to what a teacher *sees* in it. By treating software packages as *texts* and teachers as *readers* of such texts from an *anti-essentialist* viewpoint of technology (Lins 2002, Grint and Woolgar 1997), this paper discusses the final analysis of two the case studies – *The Cabri of Anthony* and *The Cabri of Camilla* of my PhD studies.

Anthony and Camilla, both teachers from a state school of Bristol (UK), were interviewed in front and away from a computer, talking about and describing *her/his* Cabri. The teachers also had two of their lessons within a Cabri environment observed. Methodological issues will be discussed in the talk.

The doctoral studies aimed to look at *what was being said* by the teachers about Cabri; and to investigate to what extent this was *linked* to the teachers' use of Cabri in and out of the classroom. Here, to look at 'what is being said' means to look at what meanings are being produced by the teachers for Cabri. One of my assumptions is that the software package which reaches the classroom environment is not *the* software that once had been designed but rather *a* software: the one the teacher has constituted. The Cabri in a classroom is *a* Cabri: *the Cabri of the teacher*.

One of the said powerful features of Cabri is the *drag-mode* that allows deformation of figures, where ideas of (in)dependence can be explored by establishing relationships among points on the figures. From the two case studies, *seeing* and *using* Cabri as such has shown not to be the case. The drag-mode has nothing to do with The Cabri of each teacher by the time they were interviewed. This does not imply it will never be. New meanings can or will be produced by them for Cabri, as meaning production is to be understood as process rather than something static. The point is the importance of the *awareness* of the Cabri of the teacher in order to understand *how* and *why* Cabri is being taken and used in a classroom in such a way.

### References:

Lins, B. (Abigail F. Lins) (2002): *Towards an Anti-Essentialist View of Technology in Mathematics Education: The Case of Cabri-Geometre and Excel*. Unpublished PhD Thesis. University of Bristol, Graduate School of Education.

Grint, K. and Woolgar, S. (1997): *The Machine at Work: Technology, Work and Organization*. Polity Press.