

# RECOGNIZING MATHEMATICAL COMPETENCES

João Filipe Matos

University of Lisbon

Madalena Santos

University of Lisbon

Mônica Mesquita

University of Lisbon

Simone – a 45 years old lady quite confident in life despite the fact that she left the school when she was 14 – works at a well known supermarket where she is responsible for a variety of daily tasks. When we talk to her we understand that she is able to deal with quite sophisticated processes. All her colleagues and the supervisor of the supermarket agree that Simone is a quite competent person. She would like to study more but she is in fact facing the need to hold a diploma of the 12<sup>th</sup> grade in order to get a promotion.

For a number of years, both cultural studies and studies in the tradition of ethnomathematics provide accounts of the particular ways people organize, adapt and build up mathematical structures and forms of thought in order to make sense of everyday activities. Now, the educational systems face the challenge of recognizing, validating, and certifying mathematical (and more general) competences in people such as Simone. This is an enormous challenge to education – and in particular to mathematics education – as, for example, millions of people in Europe who didn't follow the regular compulsory schooling (but who want to acquire the certification of the basic or secondary studies, valuing their personal and professional experience) are potential candidates to see their competences valued and recognized by the educational system. In the case of the Portuguese population, the estimated number of potential people to apply to a system of recognition of competences is around four hundred thousand in the next five years.

Key questions to the mathematics education community emerge from this picture: what do we mean today by *being mathematically competent*? what are the dimensions of the field of competences that can be considered relevant? relevant to whom? How can we specify criteria of evidence that help to identify a mathematical competence? how does a person recognize his or her competence? how does one learn how to recognize mathematical competence in someone who didn't go to school? what is the role of the person who wants to see their competences recognized? what is involved in the process of recognition of mathematical competences? who owns the right to recognize competence in the other?

Adopting a situated learning framework that considers learning as participation in communities of practice (Lave & Wenger, 1991), we address these questions as a way to start discussing the process of recognition of mathematical competences.

## References

Lave, J. & Wenger, E. (1991). *Situated Learning – legitimate peripheral participation*. New York: Cambridge University Press.