Teacher formation requires the integration of different models, metacultural, experiential and situated, to realize a professionality based on PCK. For this reason, in the framework of EU MOSEM Project, we carried out a research-based formation with different modalities for 40 teachers of 21 schools of 18 cities in 7 Italian regions.

Blended modality, dedicated to the discussion of some aspects related to disciplinary and conceptual knots, shows the need of teachers to focus the reflection for didactic planning on educational proposals already oriented to work implementation to discuss in dept conceptual knots and to transform a proposal according with the personal style and classroom context.

Problem Solving activities play a fundamental role in reflection and new elaboration: in fact teachers carried out original proposal with respect to those proposed by the project, as emerges from a comparison with a previous experimentation (SUPERCOMET2 Project), where teacher planning was focused on a simply reorganization of the materials done by the project.

In-service teacher formation requires long time and different modalities. Conducted experience highlights the importance of blended modality focused on content and pedagogic issues, research-based in terms of materials and modalities.