CONTINUOUS TRAINING IN MATHEMATICS – INFLUENCE ON THE PROFESSIONAL KNOWLEDGE OF ELEMENTARY SCHOOL TEACHERS

Cristina Martins; Leonor Santos

Instituto Politécnico de Bragança; Faculdade de Ciências da Universidade de Lisboa

This report is based on an ongoing investigation, aiming to study the contribution of participating in a Continuous Training Program in Mathematics for the professional development of elementary school teachers, specifically regarding professional knowledge. This program involves group training, supervision sessions, as well as portfolio building.

Professional knowledge covers several areas such as knowledge of the educational context, of subject-matter, of class organization and management, pedagogical knowledge and curricular knowledge (Hiebert, Gallimore, & Stigler, 2002; Ponte, 1999). Professional knowledge must be seen beyond technical knowledge. A mathematics teacher must have sound knowledge of and about mathematics, and also be able to appropriately represent mathematical ideas, so as to make them comprehensible knowledge for students (Ball, Lubienski & Mewborn, 2001).

In this study we opted for a methodological approach of the interpretative kind, performing three case studies, resorting to interviews, participant observation of sessions and documental analysis for data collection.

Sara, one of the study participants, considers that the training program was mostly useful to deepen and update her mathematical knowledge. It is obvious how she associates mathematical knowledge, didactic knowledge, and curricular knowledge, particularly when she reflects upon the use of manipulative materials regarding the study of specific concepts in her teaching practice.

References


Hiebert, J., Gallimore, R. & Stigler, J. (2002). A knowledge base for the teaching profession. What would it look like and how can we get one?. Educational Researcher, 31(5), pp. 3-15