

THE RECONSTRUCTION OF OLD MATHEMATICAL INSTRUMENTS AIMED AT TEACHERS TRAINING

Abstract

This paper presents a theoretical approach for the reconstruction of mathematical instruments in the interface between history and math teaching which had a wide survey of a literature dedicated to the construction and use of mathematical instruments and the practical geometry, widely disseminated between sixteenth and seventeenth centuries. The analysis of these works has revealed interesting mathematical and epistemological aspects of mathematical knowledge that can be explored in the teachers training with different levels. This article gives special attention to the idea of reconstructing these instruments in order to reflect and discuss about manipulative handicaps and geometric knowledge which are mobilized in the process of its reconstruction. The reconstruction and manipulation of these instruments had led one to the revision and the discussion of some mechanical and rational procedures which are related to the process of elaboration of mathematical knowledge. Based on the idea that the mathematical instrument is not merely an artifact, but also a means to construct knowledge, this paper aims to stimulate reflection on and contribute to the critical training of math teachers.

Keywords: *History of Mathematics. Mathematics Education. Mathematical Knowledge.*