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The "Data Processing and Organization" A comfortable habitat for teaching mathematical modeling in primary Moroccan school

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Authors:

My Mbarek ELMOUBARIK¹
Rachid EL JID²
Mohamed HANINI³

¹ Faculty of Science and
Technology, University of Hassan I,
Settat, Morocco

² Faculty of Science and
Technology, University of Hassan I,
Settat, Morocco

³ Faculty of Science and
Technology, University of Hassan I,
Settat, Morocco

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Abstract

In this article, we test the hypothesis that the field of "Data Processing and Organization" represents a comfortable niche for teaching and learning mathematical modeling at the primary level in the Moroccan education system. We start from the following question: **What is the ecology of "mathematical modeling" knowledge in the new Moroccan curriculum at the primary level?**

We seek to characterize the institutional relationship of the knowledge "mathematical modeling" in the new curriculum of July 2021. To do this, we rely on an analysis of the Pedagogical Guidelines (OP) and also the textbook of the 6st-year primary Moroccan students (Age 11 to 12) called " MON LABO EN MATHEMATIQUES». Our analysis is based on the Anthropological Theory of Didactics (ATD) developed by Chevallard (1991) [1] and the praxeological approach [2] which models mathematical activity. The result shows the existence of an institutional relationship between the knowledge "Mathematical Modeling" and the institution "the new primary curriculum". We develop an analysis grid to examine some activities in the field of "data processing and organization" from " MON LABO EN MATHEMATIQUES» textbook and we found different places that constitute the habitats of Mathematical Modeling as a comfortable niche for teaching it at the primary level. This study leads to perspectives for the teaching and learning of mathematical modeling in other school levels such as middle school or high school or even higher education and also in other fields such as measurement, geometry, numbers and calculation.

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