Textbooks in the teaching of Botany in primary school education in Portugal: promoting critical reflection on environmental issues?

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Key Words: Textbooks, teaching Botany, primary school, education, ecological dimension.

Textbooks are of great importance to school and teaching especially in the conformation of forms and contents of pedagogical knowledge. In what natural sciences are concerned, textbooks are aimed at promoting scientific literacy, environment education, the understanding of social and ecological reality. Textbooks develop also important pedagogical functions due to sequence and rhythm of the transmission of knowledge through, for instance, activities by which it is promoted and evaluation forms of knowledge acquired.

This research has as main aim to understand the place that Botany has been given in textbooks of Natural Sciences in primary school education in the last century in Portugal. In an attempt of interpreting the shifts in Botany content approach, we have studied textbooks according to eleven principles.

This study is supported by content analysis and the establishment of categories as well as cluster analysis. Dendograms built were intended to promote the confrontation of first hand sources in what contents, pedagogical and didactical orientations, educational and curricular policies recommendations are concerned as well as educational, environment and scientific values suggested.

Data analysis shows that changes in naming the teaching of Natural Sciences have occurred; contents approached were given different relevance through times. Therefore, we may find the conservation of several contents of Botany distributed by different dimension of Botany namely the notional dimension, the morphological dimension, the functional dimension and the ecological dimension.