

The Spanish Didactic Book 'El Calculo Y La Medida en El Primer Grado De La Escuela Decroly' (1934): A Look at the Mathematical Knowledge

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Abstract : This article aims to investigate the Spanish didactic book, entitled 'El Calculo y La Medida en El Primer Grado de La Escuela Decroly', written by Dr. O. Decroly and A. Hamaide, published in Madrid, in the year 1934. In addition to analyzing how mathematical knowledge is present in the proposed Centers of Interest. The textbooks, in addition to pedagogical tools, reflect a certain moment in society and allow the analysis of the theoretical-methodological proposal that can be implemented by the teacher. The study proposed here will be carried out by the lens of Cultural History, supported by Roger Chartier (1991) and by the concepts on textbooks, based on Alain Choppin (2004). The textbook selected for this study exposes a program of ideas associated with the method of Centers of Interest and arithmetic is linked to these interests. In the first courses (six to eight years), most centers can be considered to correspond to occasional calls, as they take advantage of events that arise spontaneously to work with observation, measurement, association and expression exercises. The program of ideas associated with Centers of Interest addresses the biological and social aspects of children, as long as they can express their needs for activities and games, satisfying the natural curiosity. Still, the program of associated ideas offers occasions for problems whose data are taken in observation exercises and concrete expressions (manuals, drawings). In the method applied at the school of L'Ermitage, school created by Decroly in Belgium in 1907, observation, is the basis of each center of interest. It offers the chance to compare and measure. To observe is more than to perceive; it is also to establish relations between the graded aspects of the same object, to seek relations between different intensities; is to verify successions, special and temporary relationships; is to make comparisons, to notice differences and similarities in block or datable (analysis), is to establish a bridge between the world and the thought. To make the observation more precise, it is important to compare, measure, and resort to considered objects as natural units of measure. Measurement and calculation are, therefore, quite naturally subject to observation. Thus, it is possible to make the child enter into the interest in the calculation, linking it to the observation. It was observed that the Centers of Interest, according to Decroly, should respond to the concerns and attend to the motivations of the students and the teaching of arithmetical must obey a logical seriation, considering the interest and the experience of the children. The teaching of arithmetical should not be limited to the schedule, it should cover every quantitative aspect that arises in the other disciplines. The feeling of unity is established in observation, association and expression, which coordinate a whole program of cultural activities, concentrating it around a central idea.

Keywords : didactic book, centers of interest, mathematical knowledge, primary education

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