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Language, symbols, images, schemes.. How do they affect understanding in mathematics and other fields? (Linguaggio, simboli, immagini, schemi.. In quale modo intervengono nella compressione in matematica e altrove?)

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Learning of mathematics displays difficulties that are rarely observed in other disciplines. In fact, the mathematical objects do not allow a direct access, but only an indirect access through representations. Therefore, representations play a fundamental role in the learning process and are one of the main problems in mathematical teaching. In this paper we investigate three topics: the relation between the representation and the object to be represented, the transition between different modes of representations of the same object and, finally, the role played by the semiotic representations. (orig.)

Classification: C30 D20

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