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Geiger, Vince; Goos, Merrilyn; Forgasz, Helen

A rich interpretation of numeracy for the 21st century: a survey of the state of the field.

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Summary: This article is a state-of-the-art synthesis of literature concerned with the concept of Numeracy (also known internationally by other terms such as mathematical literacy), and the teaching, learning and assessment practices associated with this construct. Numeracy is a concept used to identify the knowledge and capabilities required to accommodate the mathematical demands of private and public life, and to participate in society as informed, reflective, and contributing citizens. While there is an increasing focus on numeracy internationally, there is not yet a widely accepted definition for this construct or of how to best promote the development of numeracy capabilities. In this article, we first outline the development of the concept of numeracy internationally. Second, research on numeracy practice is presented through a number of distinct facets: a critical view; the workplace; the role of technology; and statistical and financial literacy. Third, studies that explore the teaching and learning of numeracy are examined. Fourth, we scrutinise the role played by national and international assessment regimes in providing information about the numeracy capabilities of a nation's citizenry and the consequences of making such data public. Finally, we reflect on the future directions of numeracy research across the spectrum of contexts to which it is relevant.

Classification: D20 D30 C40 C30 M10

Keywords: numeracy; research on numeracy

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