

# *Numeracy*

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## The Scope of *Numeracy*

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## Editorial – The Scope of Numeracy

*Numeracy: Advancing Education in Quantitative Literacy* is the electronic journal of the National Numeracy Network (NNN). The mission of the NNN is to promote education that integrates quantitative skills across all disciplines and at all levels. Accordingly, the scope of the journal is huge. After all, “the world of the twenty-first century is a world awash in numbers”<sup>1</sup> (Fig. 1).

The papers in this inaugural issue of *Numeracy* offer a first glimpse of the scope of the journal. In the first paper, Bernard Madison and Lynn Steen give a brief historical review of quantitative literacy and the recent origin of NNN, and provide a sampling of QL programs that have been implemented in colleges and universities around the U.S. Richard Scheaffer then draws on his experience as Chair of the American Statistical

Association’s Working Group on Statistics in Mathematics Education Research to offer some guidelines on how the new field of QL can build a strong research foundation. Kim Rheinlander and colleagues discuss a Dartmouth project in which teachers talked about crucial topics and skills in the K-8 mathematics curriculum that students did not master as well as expected. Vicki May and colleagues discuss another Dartmouth project in which students in freshman chemistry at Dartmouth were interviewed with the purpose of developing case stories illustrating critical moments that affect the retention of students in science, mathematics, and engineering programs.

Following the four main papers, sociologist Joel Best argues that numbers in the news are socially constructed and that, accordingly, QL education needs to include consideration of the social dynamics of numbers-use as well as the mathematics. Len Vacher closes the issue with a review of historian of science I. B. Cohen’s posthumous book on how, in the seventeenth, eighteenth, and nineteenth centuries, numbers came to inundate the world.



**Figure 1. “Wave of Numbers” by Beth Fratesi, 2005. One of the original concepts for the logo of NNN. Copyright, National Numeracy Network, Inc.**

<sup>1</sup> The Quantitative Literacy Design Team, 2001. “The Case for Quantitative Literacy.” In Lynn Arthur Steen, Executive Editor, *Mathematics and Democracy* (National Council on Education and the Disciplines. The Woodrow Wilson National Fellowship Foundation, p. 1)

As illustrated by these papers, *Numeracy* anticipates a variety of types of papers, a broad range of topics, and a wide audience. The types of papers include research articles, notes and reviews; evidence-based case studies; analyses and primers of methodologies; essays and issue papers; reviews of books and other educational resources; and commentaries/replies. The scope will include all topics relating to quantitative literacy, including theories of teaching and learning; assessment; classroom practice; curriculum improvement; educational resources; faculty development; and policy issues. The range of disciplines will span all the fields that need to cope with a world awash in numbers, such as mathematics, statistics, natural sciences, social sciences, mass communication, humanities, fine arts, business and industry, engineering, education, and medicine, nursing and public health. The range of online readers we hope to reach includes faculty and administrators at two- and four-year colleges and universities; faculty and administrators at K-12 institutions; policy-makers at all levels; and all others who have a stake in the quantitative literacy of the educated public.

In keeping with the transdisciplinary nature of QL and the extent and diversity of the stakeholders in QL, it is imperative that *Numeracy* be free of identification with particular disciplines as well as barriers that come with subscription fees. Accordingly, *Numeracy* is hosted for NNN and, for now, sponsored by the University of South Florida Libraries, which is committed to ensuring that peer-reviewed research is Open Access. Thus *Numeracy* is freely and universally accessible online and its authors retain copyright, allowing anyone to reproduce or disseminate articles, according to the copyright and licensing agreement. The journal will be archived at USF and at a backup repository.

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