



Some Current Perspectives on Adult Numeracy or Mathematical Literacy

What is “**Numeracy**”? There are several definitions, but there is general agreement that numeracy is more than merely being able to do calculations. For example:

Numeracy is the ability to reason with numbers and other mathematical concepts. To be numerically literate, a person has to be comfortable with logic and reasoning. Some of the areas that are involved in numeracy include: basic numbers, orders of magnitude, geometry, algebra, probability, and statistics.

(<http://en.wikipedia.org/wiki/Numeracy>)

Numeracy is the knowledge and skills required to effectively manage and respond to the mathematical demands of diverse situations. **Numerate behavior** is observed when people manage a situation or solve a problem in a real context; it involves responding to information about mathematical ideas that may be represented in a range of ways; it requires the activation of a range of enabling knowledge, factors, and processes. (International Adult Literacy and Life Skills Survey-
<http://www.statcan.gc.ca/pub/89-603-x/89-603-x2005001-eng.htm>)

To be numerate is more than being able to manipulate numbers, or even being able to ‘succeed’ in school or university mathematics. **Numeracy** is a critical awareness which builds bridges between mathematics and the real-world, with all its diversity.
(Australian educator, Betty Johnston, 1994)

Unlike mathematics, **numeracy** does not so much lead upward in an ascending pursuit of abstraction as it moves outward toward an ever-richer engagement with life’s diverse contexts and situations. (Orrill, R. (2001). *Mathematics, numeracy, and democracy*. In L.A. Steen (Ed.). *Mathematics and democracy* (pp xiii–xix). Woodrow Wilson National Fellowship Foundation.)



While math is not exactly synonymous with numeracy, SfA tends to use the two terms interchangeably. When considering how adults might develop mathematics knowledge in the context and service of environmental work, SfA has drawn considerably from several sources and projects that focus on adult numeracy. Check out their websites:

- ✚ A paper entitled *The Components of Numeracy* explains that numeracy has three dimensions:
Context — the use and purpose for which an adult takes on a task with mathematical demands
Content — the mathematical knowledge that is necessary for the tasks confronted
Cognitive and Affective — the processes that enable an individual to solve problems, and thereby, link the content and context.
http://www.ncsall.net/fileadmin/resources/research/op_numeracy.pdf

- ✚ Begun in 1994, the National Institute for Literacy’s **Equipped for the Future** EFF initiative started the development of a framework for adult learning content standards. These content standards were constructed to strengthen the ability of adult education providers to improve their programs in order to better meet the needs of adult learners and the wider community. Their mathematics content standard is called “Use Math to Solve Problems and Communicate.”
http://eff.cls.utk.edu/fundamentals/16_standards.htm

- ✚ **The Adult Numeracy Network** is “a community dedicated to quality mathematics instruction at the adult level.” A professional organization of adult education math teachers, ANN is an affiliate of the National Council of Teachers of Mathematics.
<http://www.literacy.net/org/ann>

- ✚ **Adults Learning Mathematics ALM** is an international research forum bringing together researchers and practitioners in adult mathematics/numeracy teaching and learning in order to promote the learning of mathematics by adults.
<http://www.alm-online.net>

- ✚ **Radical Math** is a resource for educators interested in integrating issues of social and economic justice into their math classes and curriculum.
<http://www.radicalmath.org>

- ✚ Over the past decade, **TERC** staff have been creating ways for adults to “own” math. Statistics for Action is one of their newer projects.
<http://adultnumeracy.terc.edu>