

## Some Current Perspectives on Adult Numeracy Compiled by Mary Jane Schmitt

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:

In the Survey of adult skills (PIAAC), numeracy is defined as the ability to use, apply, interpret and communicate mathematical information and ideas. It is an essential skill in an age when individuals encounter an increasing amount and wide range of quantitative and mathematical information in their daily lives  
(<http://www.oecd.org/site/piaac/Numeracy%20Sample%20Items.pdf>)

**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.)

We need to view this new term numeracy not as a synonym for mathematics but as a new discipline defined as the bridge that links mathematics and the real world (Schmitt, 2000).

Pure mathematics is abstract and context-free (Ginsbug, Manly, and Schmitt, 2006).

Numeracy is about making meaning of mathematics, at whatever level of mathematical skill, and mathematics is a tool to be used in a variety of applications in both education and life. “Numeracy is not less than mathematics, but more” (Johnston & Tout, 1995).

Check out these websites for various projects and sources with a focus on adult numeracy.

- ✚ The paper, *The Components of Numeracy*, explains three dimensions of numeracy:
  1. **Context** — the use and purpose for which an adult takes on a task with mathematical demands
  2. **Content** — the mathematical knowledge that is necessary for the tasks confronted
  3. **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](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. Their mathematics content standard is called “Use Math to Solve Problems and Communicate.”  
([http://eff.cls.utk.edu/fundamentals/16\\_standards.htm](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.adulthoodnumeracynetwork.org>)
- ✚ **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.  
(<http://adultnumeracy.terc.edu>)