Helping Students Understand & Use Data:

A discussion of the jargon and trends in "Quantitative Literacy"

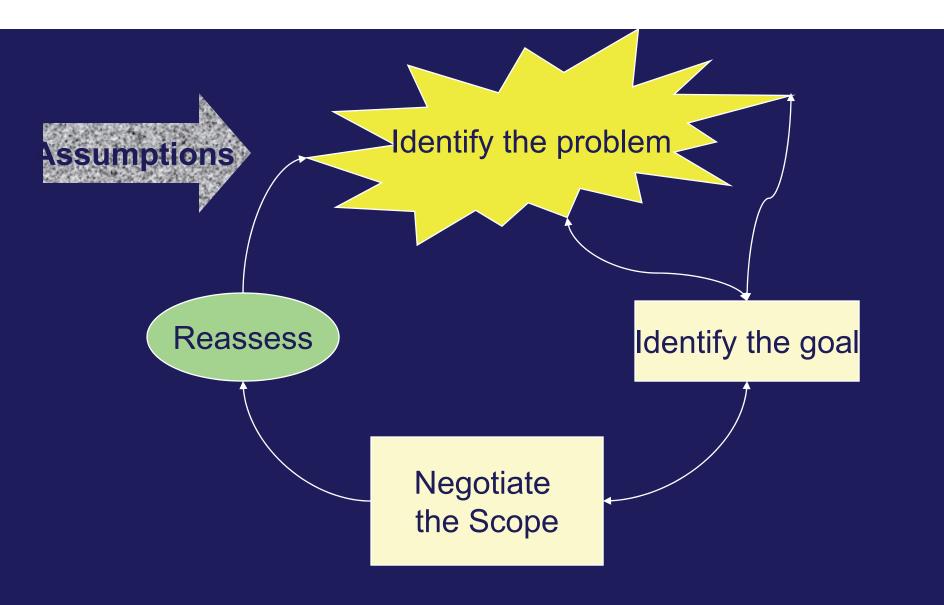
Paula Lackie May 27, 2004

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Information Technology services

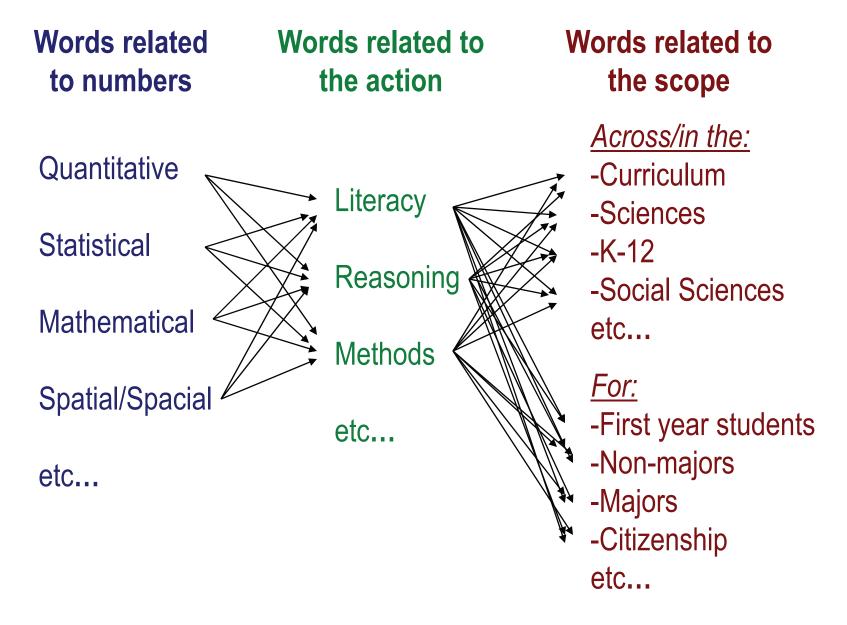
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Micro & Macro Pedagogical Process

A typical assortment of jargon combinations



Numeracy Wiki



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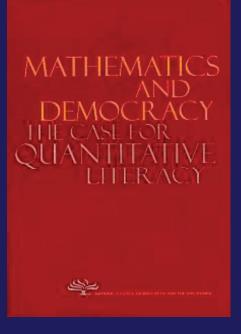
Other Influential literature 1: (come back to this on the web)

•1978 Overcoming Math Anxiety, Sheila Tobias, Houghton Mifflin

•1988 Innumeracy: Mathematical Illiteracy and Its Consequences, John Allen Paulos, Vintage Books

•1989-1995 *Quantitative Reasoning for College* <u>Graduates</u>: A Complement to the Standards, Mathematical Association of America

•1989 Everybody Counts: A Report to the Nation on the Future of Mathematics Education, National Research Council



Mathematics and Democracy The Case for Quantitative Literacy

prepared by

The National Council on Education and the Disciplines (USA)

with funding from The Woodrow Wilson National Fellowship Foundation

Lynn Arthur Steen, Executive Editor

Other Influential literature: (all by Lynn Steen)

- 1990 "Numeracy", Lynn Steen, Daedalus
- 1997 Why Numbers Count: Quantitative Literacy for Tomorrow's America, Lynn Steen, Ed., The College Board
- 1999 "The New Literacy for a Data-Drenched Society", Lynn Steen, *Educational Leadership*
- 2004 *Quantitative Literacy*: Why Numeracy Matters for Schools and Colleges, Lynn Arthur Steen, Mathematical Association of America

And then it really takes off... Leaders in QL/Numeracy in the US:

- <u>The National Numeracy Network</u>
- Science & Numeracy with teaching resources
- Quantitative Literacy Across the Curriculum: <u>Everybody's Project</u>
- <u>Quantitative and Symbolic Reasoning</u> teaching resources
- Carnegie Foundation's Integrated Learning Project
- SERC: Using data in the classroom
- Project Kaleidoscope Assembly on Quantitative Literacy
- PKAL Assembly on Quantitative Literacy

.... Etc.

Quantitative literacy is an approach to pedagogy

... not a curriculum ... not a single course ... not an exam checklist

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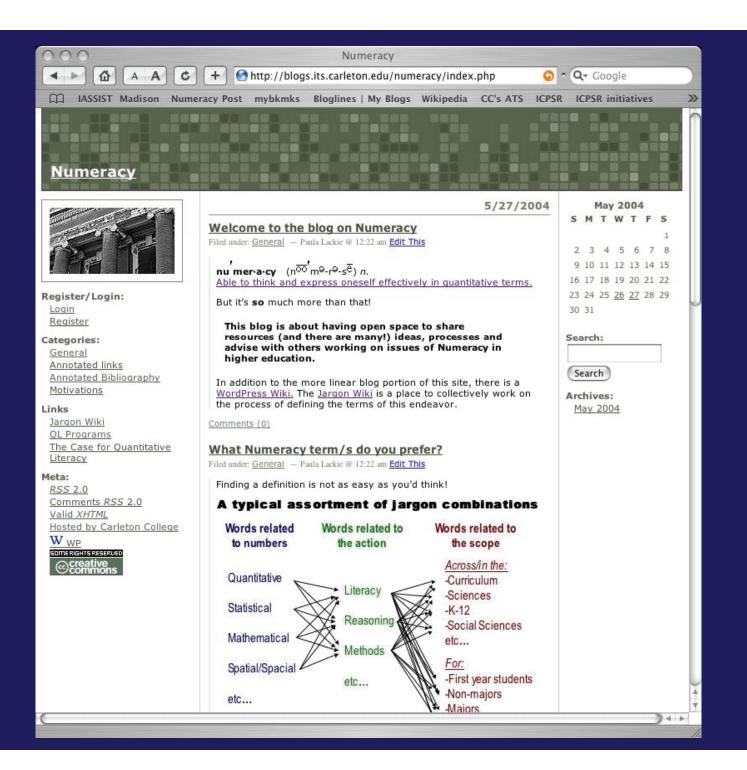
Pedagogy & Assessment Connection at Carleton College

Assessment of student written work for evidence of quantitative inquiry, knowledge and reasoning goals.

Student writing assignments submitted for the Witting Portfolio and writing assignments from coursesemphasizing quantitative reasoning collected Refinement of a rubric that can be used to identify and quantify the degree to which students achieve the quantitative inquiry, knowledge, and reasoning goals.

Faculty workshops, led by faculty with experience teaching courses rich in quantitative reasoning, to bring new faculty into the discussion of how to use quantitative reasoning, informed by assessment to achieve student learning. Correlations identified between curricular innovations and measures of the degree to which quantitative inquiry, knowledge, and reasoning goals are achieved A summary of what curricular innovations have worked.

Faculty development of new courses and course revisions informed by the assessment results.



What was that URL?

http://blogs.its.carleton.edu/numer acy/

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