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Clyde L. Greeno* (green@mathsense.org), MALEI Mathematics Institute, P.O. Box 54845, Tulsa, OK 74154. *A Common-Sensible FTY Curriculum For Colleges: Visions And Guidance From Scientific Clinical Research.*

In the practical arenas of mathematics course designs and instructional practices, the traditional American mode of curriculum reform is to look for “good models” that can be viewed as “pilots” which might be “implemented” on a broad scale. Such a groping mode now is being used for the collegiate core-curriculum, presently College Algebra through Calculus. But modern science now offers much more efficient, effective, reliable, and enlightened methods for improving the design of the core-curriculum.

Aired, herein, is some of what the managerial science of operations analysis says about how to scientifically and beneficially re-structure that curriculum — including guidelines adapted from critical path methods of operations research. Thereby, it is seen that the educational needs of non-calculus-oriented students call for a very different tree of introductory courses, including some for which there presently are no visible models.

Corresponding visions and designs of the innovative or re-formed courses are most cost-effectively developed through local institutional use of clinical methods. Through that process also surfaces the major finding of scientific clinical research: the need for making all mathematics courses fully common-sensible to the students, themselves. (Received September 27, 2005)