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Clyde I. Greeno* (green@malei.org), The MALEI Institute, P.O. Box 54845, Tulsa, OK 74155. *Mathematical Learning: A Humanistic Re-formation of Core-curricular Instruction*. Preliminary report.

Clinical research identifies humanly natural, rational processes of acquiring personal mathematical knowledge . . . which also develop personal powers for creative, analytic, managerial thinking/learning. Apart from differences in mathematical sophistication, those natural are some of the same ones used by professional research mathematicians. They are professional learners, and their mathematical arts mostly are only refinements of what on the streets is called "using common sense". Implications for curricular education in mathematics are profound. All humans are natural theorists. Their ability to learn by theorizing . . . albeit loosely and often subconsciously . . . is their primary tool for their survival by striving to manage whatever affects their lives. But the prevailing American modes of core-curricular instruction in mathematics commonly have quite the opposite effect on students. Because the curriculum is not designed to be commonsensible to them, they cannot learn the material, mathematically (i.e. not theoristically). Instead, they must resort to irrational "template training" in order to emulate whatever texts and teachers do. This presentation summarizes the proceedings and findings of a project on the theoristic learning of core-curricular mathematics. (Received September 22, 2010)