Michael Starbird* (starbird@mail.utexas.edu), Department of Mathematics, The University of Texas at Austin, 1 University Station, C1200, Austin, TX 78712. Guided Discovery: Matters Mathematical and Beyond. Preliminary report.

Guided discovery methods of instruction are centered on students' proving theorems on their own and presenting their results to their peers. Expected outcomes for students include their developing theorem-proving skills and the ability to tell whether a proof is correct or flawed. But beyond those mathematical skills, this experience frequently involves interesting consequences on students' attitudes concerning self-reliance, independent thinking, and willingness to make mistakes. Those lessons can change students' lives for good. Guided discovery can be an important component of the education of students. (Received September 21, 2009)