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Robert Talbert* (talbertr@gvsu.edu), Grand Valley State University, Department of Mathematics, MAK A-2-178, 1 Campus Drive, Allendale, MI 49401-649. *Making proofs click: Classroom response systems in transition-to-proof courses.*

Transition-to-proof courses, designed to prepare students from calculus and other lower-level courses for the methodology of upper-level mathematics, are often difficult for students in several ways. Students who are used to purely algorithmic approaches to mathematics experience culture shock at the more open-ended and uncertain mathematical world that such courses introduce. The elements of communication and writing often play a much larger role in these courses than in earlier ones. And generally, these courses signal a major change in the way students conceive of the study of mathematics, which can make further study of mathematics stressfully forbidding.

Technology can help students make this transition. In particular, classroom response systems, or "clickers", open up the classroom to a range of pedagogical approaches that can help students learn mathematical abstraction and good mathematical writing practice. In this talk, we discuss some instances of clicker-enabled pedagogy in the author's Communicating in Mathematics class, including peer instruction, informal quizzing, and peer review of writing samples as forms of formative assessment. (Received September 21, 2011)