

1046-S1-1986 **Mairead Greene*** (mairead.greene@rockhurst.edu). *The Role of an Inquiry-Based Classroom in Promoting Deep Learning for Mathematics Majors: A Case Study.*

Last semester, the students in my undergraduate Number Theory course experienced the power that comes with discovering knowledge in an inquiry-based classroom. They learned to take a general question, experiment with some specific situations to gain understanding, form a conjecture from this experimentation, perform further experimentation to test and refine this conjecture and, finally, prove their conjecture. They engaged in this process both inside and outside of the classroom and recorded their work in an ongoing Number Theory Journal. They completed weekly reflections on their experience in the class and how this was impacting their learning. This presentation will also include discussion of the final report that the students prepared, the classroom environment that allowed this approach to succeed and the systematic study of the reflections that took place after the course ended. (Received September 16, 2008)