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Liberal Arts Mathematics and Guided Learning Worksheets – IBL for non-majors. Preliminary report.

After teaching Real Analysis and Introduction to Proofs using IBL techniques I was sold on the significantly improved learning that happens when a professor puts some, or most, of the burden of learning mathematics on the students. However, it seems to be unfair to only give my best effort to the students who are already convinced of the value of mathematics. I have been teaching Mathematics for Democracy for over five years and decided that these students deserved my attention as well. After all, they are the ones who are really paying my salary.

In Summer 2013, I was able to get ahold of notes for a Liberal Arts math course – IBL style by Anders O.F. Hendrickson. Using a significant portion of his notes and adding my own as necessary, I created a set of notes for a 14 week semester course focused on the mathematics involved in the election of the U.S. President. Unlike my more advanced courses, this classroom is run in more of a guided-lecture style. Students work discovery problems in the coursepack and then I take the time to help them craft definitions of terms that are used to discuss the concepts more generally. Thus, the students are able to internalize the definitions because they are written in their own language. (Received September 20, 2016)