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**Volker Ecke\*** (vecke@westfield.ma.edu<mailto:vecke@westfield.ma.edu>), **Christine von Renesse**, **Julian Fleron** and **Phillip K Hotchkiss**. *Discovering the Art of Mathematics: Evaluating our Student Goals*.

For students in the liberal arts, the learning objectives typically extend beyond a particular set of specific mathematical skills. Taking a long-term perspective, the key goals include a deeper appreciation for the nature and culture of mathematical inquiry, a shift towards more balanced beliefs and attitudes in the students' role as mathematicians, and a more positive engagement with mathematical ideas outside the classroom. As part of the "Discovering the Art of Mathematics" project (artofmathematics.org), we hypothesized that students' deep, active engagement in authentic mathematical investigation in an inquiry-based learning classroom would: strengthen reasoning skills, broaden awareness of and foster interest in mathematics outside the classroom, offer enjoyment in doing mathematics, support insight into the role of beauty, creativity, and curiosity in the pursuit of mathematical truth, as well as increase students' sense of agency, confidence, and authorship in developing mathematical ideas. Our results show that all changes occur in the hoped-for direction with most changes showing statistical significance and meaningful effect sizes. We will discuss our study, findings, limitations, and areas for future research. (Received September 30, 2015)