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Tim Fukawa-Connelly* (tim.fc@unh.edu), Department of Mathematics and Statistics,
Kingsbury Hall W348, University of New Hampshire, Durham, NH 03824. *An Example of a
Non-traditional Pedagogy in an Abstract Algebra Class: What is the effect on student motivation?*

It is important to develop a better understanding of the fine-grained mechanisms, such as students' attitudes and beliefs, by which they make the day-to-day decisions about their work that contribute to their success (or lack thereof). This need to better understand student motivation extends to advanced mathematics classes at the university level as retention of students interested in mathematics and mathematics education is important. The unique abstract algebra class described in this study can provide insight into socio-mathematical norms and classroom practices that supported students' academically successful decision-making processes. In particular, it uses the lens of Collective Cognitive Responsibility (Scardamalia, 2002) to better understand the norms and practices that contributed to students' academic success. This paper provides an analysis of interviews and classroom vignettes that may suggest instructional strategies that better support students' development of the types of motivation that lead to academic success in the context of advanced mathematics. (Received August 13, 2009)