

1135-J5-2277 **Angeliki Mali*** (anglmali@umich.edu) and **Vilma Mesa** (vmesa@umich.edu). *Instructors and students' uses of dynamic textbooks: What is new?* Preliminary report.

As part of the NSF funded project *Undergraduate Teaching and Learning in Mathematics with Open Software and Textbooks* (UTMOST), we investigate whether and how instructors and students take advantage of features that are included in dynamic textbooks enhanced with Sage cells. Using the documentational approach (Gueudet & Trouche, 2009) we analyze two processes: instrumentation (how the resources “affect” the user) and instrumentalization (how the user “affects” the resources) while instructors use the course textbooks (either dynamic or identical PDFs) during planning and teaching. We also describe students’ uses of the course textbooks during class and their reported use outside the classroom. Data sources include biweekly logs, surveys, video recordings of the planning and the enactment of lessons, interviews, and tests of content knowledge with seven instructors—four teaching Linear Algebra and three teaching Abstract Algebra.

Reference: Gueudet, G., & Trouche, L. (2009). Towards new documentation systems for mathematics teachers? *Educational Studies in Mathematics*, 71, 199-218. (Received September 26, 2017)