SELF-EXPLAINING EXPERIENCES IN LARGE ENROLLMENT GENERAL CHEMISTRY COURSES. Adrián Villalta-Cerdas, Santiago Sandi-Urena, Department of Chemistry, University of South Florida, 4202 E. Fowler Ave CHE205, Tampa, FL 33620.

The prevalent trend in chemistry instruction relies on the "classroom game" which posits students in a passive role. In this model, the instructor does all the explaining (thinking), and learning is trivialized to knowing the correct answers (memorizing) and being able to produce them when prompted (regurgitating). Engaging learners in active self-explaining of scientific observations and statements is a promising method to enhance authentic learning. In the present study self-explaining refers to student's generation of inferences about causal connections between objects and events. This study probes the effect of different self-explaining tasks on learning chemistry topics. The conditions used include: solving problems without explaining, explaining solutions to problems, explaining agreement with others' solutions, explaining solutions for others to use, and explaining others' wrong reasoning. These conditions are observed in the naturalistic classroom ecology of a large enrollment General Chemistry course. Preliminary results and ongoing work will be discussed.