

**ARGUMENT CONSTRUCTION AND AARGUMENTATION IN UNDERGRADUATE CHEMISTRY LABORARTORIES.** Joi Walker, Science and Math Department, Tallahassee Community College, 444 Appleyard Drive, Tallahassee, FL 32304

The General Chemistry Labs at Tallahassee Community College are taught using an innovative instructional model called *Argument Driven Inquiry* (ADI). The ADI instructional model was designed to give a central place to argumentation and the role of argument in the social construction of scientific knowledge while promoting scientific inquiry. This paper presents the results of a repeated-measures study into how students enrolled in General Chemistry I laboratory course learned to engage in scientific argumentation. The development of the students' ability to construct a scientific argument and to participate in scientific argumentation was tracked over the course of a semester using both individual and group assessments. The results of this study indicate significant growth in the students' ability to both construct an argument and engage in argumentation. The research presented adds to the growing body of information demonstrating the value of instructional models that engage students in argument and critique, not only for understanding of science content but also for developing science literacy.