

**PHENOMENOLOGICAL STUDY OF GRADUATE TEACHING ASSISTANTS' EXPERIENCES IN TWO DIVERSE GENERAL CHEMISTRY LABORATORY ENVIRONMENTS** Todd A. Gatlin, Santiago Sandi-Urena, Department of Chemistry, University of South Florida, 4202 E. Fowler Ave CHE205, Tampa, FL 33620.

There is sound consensus among chemistry educators regarding the potential of laboratory instruction in promoting students' scientific literacy. Lab related education research has focused on the implementation of different instructional approaches whose effectiveness is typically assessed based on students' achievement and perceptions. An implied assumption is that the effectiveness is an intrinsic property of the instructional methodology and not of the *learning environment* that represents the unique shared experience of participants in the lab. Our proposal is to explore multiple laboratory learning environments to discern the common factors that promote significant learning and scientific development. Once identified, these factors can be adopted by and adapted to real laboratory experiences. In this study, we compare and contrast graduate teaching assistants' experiences (GTAs) in a non-typical laboratory program with GTAs' experiences in a typical one. For this purpose, we conducted independent phenomenological studies. Findings and implications from this work will be presented.