Abstract for an Invited Paper for the NWS08 Meeting of The American Physical Society

Integrating writing research with curricular development in large-enrollment introductory physics DEDRA DEMAREE, Oregon State University

Multiple research projects have been undertaken as part of an ongoing study to develop methods to do quantitative assessment of writing to learn within physics. The ability to make use of writing to learn at first glance appears limited in large-enrollment courses due to the time-intensive nature of essay writing and grading. However, effective ways to implement writing are quite possible. One study that will be discussed required students to do textbook summary writing in introductory physics in the 2007 spring semester of the "Foundation Physics Course" at the University of Cape Town. This course is a component of the special access program which contains mostly second language English speakers. Another use of writing will be reported that is currently being used in the introductory physics course at Oregon State University as a way to enhance problem solving. This project is also aimed at scaffolding students toward goals in our upper division courses. This talk will report on some of what we know about writing to learn, how we are working to improve ways to study it quantitatively, and how we are incorporating some aspects of it in accessible ways in large-enrollment introductory courses.