Vicky Williams Klima* (klimavw@appstate.edu). Incorporating Reflection into Calculus Assignments. Preliminary report.

By developing reflective study habits, students become stronger more independent learners. Using online homework systems allows students to receive instant feedback concerning their mastery of material and also reduces the amount of grading required of instructors. However, encouraging reflection and using online homework seem in opposition to one another. In this talk we present a series of assignments that requires reflection while also employing the use of online homework. Initially, students record what they do understand about a problem and ask pointed questions about what they do not understand. After discussing their observations and questions, students reflect on their initial misconceptions as well the big ideas of calculus that appeared within the problem. Finally, students complete an online homework assignment that asks them to use some of the same skills stressed in the initial problem set. We will present our assessment strategy for the series of assignments, challenges in implementing the series of assignments, and evidence of growth as students complete the series of assignments throughout the semester. (Received September 19, 2016)