For the past two years, we have investigated changes in the mathematical knowledge of practicing teachers engaged in discovery-based programs, using what we call embedded assessments. The assessments are given in the course of the discovery-based learning as part of launching an exploration. The idea is to capture some information about student understanding on a task and then use these results to guide the teaching of the class. When we use the embedded assessments, we compare the student understanding at the beginning of a unit to the performance of the student at the end of the unit. We argue that there are a number of benefits to securing student performance in the course of activity one task at a time. There are limitations, as well, given that the administration of what serves as a pre-assessment is different than the administration of the post-assessment.

We will share some specific data from our assessment of discovery-based mathematics classes. More importantly, we will share what we have learned about assessing discovery-based learning—in particular what types of tasks have lent themselves to this approach and what types of tasks have been problematic in revealing what has been learned. (Received September 16, 2008)