The University of Washington Bothell was in the enviable position of designing a freshman math curriculum from scratch, and sought to develop it based on the work in quantitative literacy of the past decade. In this session, we will share how we developed a math assessment instrument for incoming freshmen based on the work of Washington State’s Transitions Math Project and the national work on quantitative literacy. We will talk about the process of designing this instrument, the logistics of grading and administering a non-multiple choice assessment, and provide data on its effectiveness in placing students. We will discuss how we collaboratively developing the placement grading rubric, how this process generated a forum for rich discussions among math faculty and Quantitative Skills Center tutors, and provided us important feedback as we designed our freshman level math courses. (Received September 19, 2007)