Sherry L Hix* (slhix@northgeorgia.edu) and Dianna J Spence. Closing the Loop: How
Creating and Administering Assessments for NCATE / NCTM Program Recognition Directed Us
to Data Analysis that Improved our Program. Preliminary report.

In order to align our undergraduate program in secondary mathematics with NCTM program standards, we designed several assessments. Two of these revealed weaknesses, resulting in significant program changes.

One assessment is a portfolio assignment in our senior seminar course, focused on seven strands of mathematical content. This assessment revealed that students were not fully prepared for the statistics and data analysis necessary to teach high school. As a result, the seminar course was enhanced to provide greater emphasis in this area, and additional elective coursework in statistics was strongly recommended for students in the program.

Another assessment is a rubric used to evaluate student teaching. This assessment revealed a lack of pedagogical content knowledge as our students designed and implemented mathematics lessons in the field. To address this deficiency in mathematical knowledge, a Mathematics Curriculum course was developed in the Mathematics department to replace a generalized curriculum course that students previously completed in the Education department.

The discussion of these changes in course requirements and course design will reflect how the assessments have improved student learning and, by extension, future teaching in mathematics. (Received September 24, 2012)