We will present the findings of our comprehensive research study on the effects of implementation of formative and summative assessments on achievement and retention of students in elementary algebra classes at Richard J. Daley College. The methodology used was the Keystone method which is based on the centrality of student learning and continuous adjusting of the teaching practices. This method incorporates frequent quizzing, feedback, and reteaching in order for students to attain mastery. Using experimental/control group design it was found that approximately after four months, students (N=222) who were in the Keystone group achieved significantly higher scores on the final examination than the students in the control group (1352). The higher improvements in student performance were achieved in conjunction with higher retention rates. The results obtained on internal summative assessments were also highly correlated to the external examination scores. (Received August 27, 2008)