USM piloted the Math Zone in Spring 2007, a computer-based program in teaching MAT 101 and MAT 099 in order to improve student performance. This research determined the effect of the re-design of MAT 101 on student achievements in comparison to a traditional approach to the same course. Meanwhile, the study investigated possible effects of the Math Zone program on students’ attitude toward studying mathematics. This study showed that there was no statistically significant difference on MAT101 final exam scores between the Math Zone students and the Classroom students in Fall 2007, Spring 2008 and Fall 2008. At the same time, the study also showed that there was no statistically significant difference in students’ attitude toward math between the two groups in each of the three semesters. However, this study revealed a significant relationship between the hours the students spent in the Math Zone and the scores they made on the final exams in Spring 2008, Fall 2008, Spring 2009 and Spring 2010. (Received September 09, 2011)