This paper seeks to compare distance and classroom learning of college algebra in terms of efficiency and effectiveness. The study seeks to further understand the dichotomy (if any) between learning college algebra in the two learning modalities provided to non-traditional students in non-traditional higher education programs. The study also seeks to discover evidence based methods to maximize teaching and learning outcomes for all stakeholders. The current search results suggest a robust distance learning system for college algebra is a suitable learning medium for students that have routine access to a computer with an internet connection; possesses good basic study skills; are self disciplined; organized; motivated; and willing to adhere to policies on academic honesty. The traditional classroom learning of mathematics does not seem to require similar attributes. Observations from both settings will be presented along with literature that supports findings on the efficiency and effectiveness of learning under the conditions stated. (Received September 15, 2008)