Calls for comprehensive innovative curriculum and pedagogical changes to mathematics courses and introductory statistics courses have been documented within multiple national reports during the last several decades. Although there is a plethora of research on reform based statistics, there has been little research that describes the characteristics of a problem based introductory statistics course at the college level or on how students respond to a more conceptually-based introductory statistics course. This study addressed the deficiency in literature regarding alternative pedagogical practices and problem based learning within undergraduate level statistics courses. A study analyzing the relationship between students and their mathematical perspective benefits future and current educators as well as future higher education students. Understanding student’s experiences and interactions with mathematics can offer insight into future curriculum development and pedagogical design. Considerable improvements in mathematics learning will not occur unless we can succeed in transforming the way mathematics is taught. (Received September 11, 2014)