This talk will be a summary of my experiences over the past few years in introducing research projects to students and supervising their research. These experiences developed from my work at two institutions (Rice University and Texas Southern University) and from participating in a variety of programs. One of these was the National Research Experience for Undergraduates Program (NREUP), and others included research courses, thesis advising, and an undergraduate mathematics competition. Some of my students continued their research (success), and others decided to pursue other fields (failure?). Nevertheless, our meetings were mathematically productive for me and the students. Further, the students appreciated the opportunity to increase their understanding of mathematics and to improve their computing skills, their presentation skills, and their technical writing. (Received September 26, 2006)