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**Gail Kaplan\*** (gkaplan@towson.edu), Department of Mathematics, Towson University, 7800 York Road, Towson, MD 21252. *A Stimulating Journey on a Road of Discovery: Mathematical Projects Designed to Engage both Student and Teacher during a Dynamic Exploration of Mathematics*. Preliminary report.

The primary focus of my professional life is the development and dissemination of dynamic approaches to learning mathematics. This focus is built on the belief that the ideal course of study combines the inseparable partners of thought and content, and an essential part of education is to merge the teaching of both. Students at every level, middle school, high school, university, preservice teachers, and in service teachers, need to continue to learn how to think. The thought process must blend analysis with creativity. The goal of both secondary and university classrooms must be to create energetic, engaged learners. Discovery projects involve students in a dynamic learning experience. These projects are group oriented; the focus of each project is on exploration, guided by leading questions which encourage mathematical discourse amongst the students. Students much more readily grasp theory that they have "discovered" independently. During the secondary methods class our preservice secondary teachers experience a variety of discovery projects and learn how to utilize similar teaching strategies in their future classrooms. (Received September 01, 2007)