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Natalie L.F. Hobson* (nhobson@uga.edu), **Kevin C. Moore**, **Irma E. Stevens**, **Biyao Liang** and **Kathryn D. Mauldin**. *Providing Students Experiences to Model Novel Situations*. Preliminary report.

Numerous researchers and policy makers have argued the importance of providing students opportunities to model dynamic situations via quantitative and covariational reasoning. Quantitative reasoning—conceiving a situation constituted by measurable attributes—and covariational reasoning—the conception of how two quantities change in tandem—are essential to problem solving topics in undergraduate mathematics. Through our research on student thinking, we have developed a series of technology-supported tasks designed to engender students’ quantitative and covariational reasoning as they experience a dynamic situations. In this presentation we reveal some of these tasks, the accompanying instruc-

tional goals of the tasks, and illustrations of student thinking on the tasks. Our study continues to lead to new insights into students' reasoning and ways of thinking about quantities, covariation, and representations, and we share some of these emerging findings. (Received January 16, 2016)