The University of Virgin Islands’ (UVI) Growth Model was designed to address systemic inequities in undergraduate STEM education. The UVI model is based on the Tinto’s models of student retention and persistence, which states that social integration and academic integration are predictors of students’ success in completing their degree (Tinto, 1993). The UVI Growth Model builds self-efficacy by integrating Growth Mindset theory (Dweck 2006) into student and faculty professional development, as well as support activities utilizing formal and informal peer-to-peer interactions to enhance the undergraduate STEM environment. There are six essential components in the model that target content knowledge, attitudinal factors such as perceptions of intelligence, behavioral factors such as mathematics efficacy, and sense of belonging. Preliminary findings on the impact of one component, Peer-led Team Learning (PLTL) in foundations mathematics courses will be discussed. There was nearly a 40% increase in the course pass rate for STEM students participating in PLTL. Ongoing analysis supports improvement to the program’s implementation. These improvements include changes in training materials of the peer leaders to address mathematics efficacy along with revisions to the curriculum. (Received September 25, 2018)