

1116-Q6-2748 **George Kuster*** (gkuster@vt.edu). *An investigation of student resources for function and rate of change in differential equations.*

Research on student learning indicates that student understanding of function and rate of change play an important role in the development of their understanding of differential equations. Few studies however, have focused on how students' understanding of function and rate of change evolve and interact over time as students learn differential equations. I will present findings from a larger research project, which utilized the perspective of Knowledge in Pieces (diSessa, 1993), to explore the resources relating to function and rate of change that students use to solve differential equations tasks. More specifically I will discuss how the sets of resources students used to solve certain problems changed over time and the implications these changes had concerning their understanding of function and rate of change with regard to differential equations. (Received September 22, 2015)