

1077-M1-1714 **James T Sandefur*** (sandefur@georgetown.edu), **John Mason**, **Gabriel J. Stylianides** and **Anne Watson**. *Reaching for the Familiar: Example Generation in the Proving Process*.

We analyze video-data from 27 university students working in groups on different proving problems. Our aim is to understand the contribution made by example generation to the proving process. We suggest and illustrate four aspects of situations in which example generation has a positive role to play in proving. These aspects integrate qualities of students and of problems: experience of utility of examples in proving; problem formulation; personal example spaces and technical tools; relational necessity. Our analysis is based on integrating three frames from the literature: 1) manipulating-getting-a-sense-articulating, 2) syntactic & referential and 3) conceptual insight & technical handle. (Received September 20, 2011)