

The Role of Conjecturing in Developing Skepticism: Reinventing the Dirichlet Function.  
Contributed Research Report

The study presented in this research report was born out of the desire to develop pathways for students from informal to formal modes of thinking. The data from this report stems from a series of small group interviews using a process of guided reinvention incorporating frequent student conjectures in order to reinvent the definitions of limit and continuity. During these interviews, students used the practice of skepticism in order to suspend judgment on various mathematical statements. In the process of exploring a developed conjecture, the students' suspension of judgment allowed them to alter their initial beliefs about the nature of continuity and their interactions with functions.

Keywords: Conjecturing, Skepticism, Calculus, Continuity, Dirichlet Function  
*Journal of Pedagogical Studies in Mathematics, 60, 297-321.*