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In this talk, we highlight the research collaboration between faculty in the Department of Mathematics at Bridgewater State University, USA and faculty at the Department of Prosthodontics at the University of Heidelberg, Germany. We will outline the nature of the collaboration including partnerships with industry companies, and describe how the collaboration began and evolved into a successful research partnership. Moreover, we will highlight one particular mathematical model that emerged from the collaboration and describe how it was incorporated in an upper-level class in our mathematics program at Bridgewater State. In particular, we will showcase the use of inverse prediction and their confidence intervals for regression models to help technicians and dentists determine the cut level for zirconia crowns that maintains the color of the restoration withing acceptable parameters. Moreover, we will describe how this application was integrated into the classroom through project-based learning and the impact on student learning for this class. (Received September 17, 2019)