

BRIAN CRUTCHLEY, MELVIN LOUIS BOWERS III, PARKER ANTHONY, and JASON R MILLER, Department of Computer Science, Engineering, and Mathematics, Shepherd University, Shepherdstown WV 25443. Developing Virtual Reality Software to Graph 3-D Curves with Applications in College Level Mathematics Education.

Virtual Reality (VR) is a potentially augmentative technology for classroom learning. We speculate that 3D visualization of solutions to mathematical equations would be assistive in a college level calculus course. To test our hypothesis, we built a VR system using commercially available hardware and software. We implemented visualizations of solutions to equations from textbooks used in calculus classes at Shepherd University, where we are in the process of demonstrating the system to mathematics professors and recording their reactions using a survey. So far, three of three professors reported that they would support the system's use in the classroom. We hope to add features such as projections of curves onto any plane, and we hope to test the system in a classroom setting.