

1171-97-143

Ann Patrice Gulley* (ann.gulley@auburn.edu), AL, and **Canek M L Phillips** (canek@rice.edu), **Yvette E Pearson** (yeperson@utdallas.edu), **Logan C Prickett**, **Matthew F Ragland** (mragland@aum.edu) and **Luke A. Smith** (lsmith4@aum.edu). *Reducing Barriers to Mathematics Education with Process-Driven Math.*

Process-Driven Math is a method of math instruction and assessment originally designed to support the learning of a student who is blind and unable to write or use braille. This student had the ability to succeed in college math, but the tools he needed to demonstrate that ability did not yet exist. To overcome this barrier, the student collaborated with support staff at his university and together they created Process-Driven Math (PDM). PDM is a method that uses chunking to deliver the overall landscape of a mathematics problem without overwhelming the student's working memory. Numbers, symbols, and operators are temporarily hidden behind layers of appropriate math vocabulary. The student is in control of the simplification process, deciding in which chunk of the problem to work and what transformations to make. This student successfully completed his core math requirements using PDM. Over time, the team who created the method became aware of other learners who needed additional tools to succeed in math. The method was subsequently adapted for sighted learners who could also benefit from PDM. Results from research conducted on the efficacy of PDM will be reported. This material is based upon work supported by the National Science Foundation under DUE awards 1726869 and 1726254. (Received August 10, 2021)