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**Tom Asaki\*** (tasaki@wsu.edu), Department of Mathematics and Statistics, PO Box 643113, Washington State University, Pullman, WA 99164, and **Marie Snipes, Heather Moon** and **Chris Camfield**. *Image and Data in the Classroom: Research and Research-like Experiences*.

A student's ability to engage in scientific research is becoming the norm for undergraduates. The classroom can be a significant stepping stone toward achieving necessary skills and relevance through research practices. We present students with real-world questions as initial motivation for mathematical concepts, rather than as a justifying application. Activities designed as open-ended explorations provide research-like experiences, training students to grapple with undefined concepts and the unknown. Current research topics for classroom use include limited view tomography scenario development, improved noise removal from images, and visually-pleasing image blending. While students gain new appreciation for the utility of mathematics in everyday life, they also gain confidence in their own skills and ability to address research questions. Research questions presented near the end of the semester/quarter can now be viewed through a mathematically enlightened and critical lens. Modules for classroom use are being developed and tested as part of the NSF-funded IMAGE Math project. (Received September 20, 2016)