

Training Better Scientists with a Better Statistics Curriculum

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We all know the experience of grading stats finals and realizing that our tireless efforts have only sown confusion. There is a better way. The New Statistics de-emphasizes p values and decision-making to focus on estimation—the process of using samples to make quantitative predictions with uncertainty. Specifically, the New Statistics emphasizes effect sizes, confidence intervals, meta-analysis and Open Science. The New Statistics is easier to teach, lends itself more directly to active learning, and yields better student understanding. De-emphasizing p values may seem like anathema, but students lose nothing—they can still learn decision-making and in fact often emerge with a better understanding of p values once given a foundation in estimation. Moreover, a New Statistics curriculum prepares your students for where the field is headed. This workshop will show how you can easily shift your curriculum towards the New Statistics. We'll work through specific examples using Jamovi, a free program for data analysis. You will receive a complete set of example course materials that you can adapt to your own purposes.