Good Practice in Using Statistics in Statistics Education Research

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In 2007 the American Statistical Association (ASA) published a report 'Using Statistics Effectively in Mathematics Education Research.' In October 2012 a workshop was organized in the UK to discuss how the mathematics education community could make use of the report's findings and recommendations. In this paper we briefly reflect on the ASA report and the discussions. We then suggest that the statistics and statistics education community should use both the ASA report's recommendations and other developments, such as the work of the National Foundation for Educational Research (and others) in the UK on randomized controlled trials in education research. We use two examples of data visualization tools and consider influential factors for carrying out interventions with them. Allowing for these factors leads to possible engagement with, and fostering cooperation between, the statistics and statistics education communities. In general such cooperation could, in turn, produce a more convincing evidence-base for improving statistics education.

Key Words: interventions; randomized controlled trials; cooperation; data visualization