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**Retention of statistical concepts in a preliminary randomization-based introductory statistics curriculum.**

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Summary: Previous research suggests that a randomization-based introductory statistics course may improve student learning compared to the consensus curriculum. However, it is unclear whether these gains are retained by students post-course. We compared the conceptual understanding of a cohort of students who took a randomization-based curriculum ( $n = 76$ ) to a cohort of students who used the consensus curriculum ( $n = 79$ ). Overall, students taking the randomization-based curriculum showed higher conceptual retention in areas emphasized in the curriculum, with no significant decrease in conceptual retention in other areas. This study provides additional support for the use of randomization-methods in teaching introductory statistics courses.

*Classification:* K45 K75 D35 C35

*Keywords:* statistics education research; simulation; permutation tests; active learning

[http://iase-web.org/documents/SERJ/SERJ11\(1\).Tintle.pdf](http://iase-web.org/documents/SERJ/SERJ11(1).Tintle.pdf)