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Create Random Assignments: A cloud-based tool to help implement alternative teaching materials*

Short title for running header: Create Random Assignments

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url: https://bensresearch.com/CRA/

Research has shown that learning is enhanced by variety (Bransford et al. 2000; Halpern and Hakel 2003) such as popular press books, podcasts and videos. However, these mediums do not contain question banks and further, while learning management systems (LMS) can be used to generate random quizzes, they are not designed for long form open-ended responses that might be answered over the course of a few days to weeks; open-ended questions are often ideal in upper-level undergraduate and MBA courses where there are less definitive correct answers. We solve these problems by developing software to generate assignments with randomized open-ended questions.

'Create Random Assignments' is a free program developed by the authors that runs within the Google Drive environment. Using a Google Spreadsheet as a question bank, Create Random Assignments randomly generates an assignment for each student in the class. This assignment can be delivered in several ways: as physical printout for exams, as an emailed PDF, or as a shared Google Document. When using the latter of these features, the student completes the assignment within Google Documents and the instructor grades the assignment using Google Document's comment feature. Because the assignment is a Google Document, the student can insert graphs (using Google's drawing tool), equations, or any other media type. This allows for more nuanced answers and can fulfill a set of learning objectives that could not be achieved with traditional short answer assignments. Further, it allows for multiple rounds of feedback between the instructor and student creating additional learning opportunities.

Our site features a link to Chrome App in the in the Google Apps Store as well as a direct link to the app for other browsers. Further, we provide software instructions and four sample question banks to test the software. An e-mail link for support is provided.

Keywords: random assignments, google drive, software

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JEL Codes: A20, A22, A23

REFERENCES:

Bransford, John D., Ann L. Brown, and Rodney R. Cocking. 2000. *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Press Academy.

Halpern, Diane F. and Milton D. Hakel. 2003. "Applying the Science of Learning to the University and Beyond: Teaching for Long-Term Retention and Transfer." *Change: The Magazine of Higher Learning* 34(4): 36–41.