From Lab to Learning

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Do research findings from a controlled lab setting hold up in a classroom?

Psychological science often suggests promising principles that may improve learning. However, many of these findings have not been translated to educational contexts or designed into easy-to-implement teaching interventions. A new grant program from the APS Fund for Teaching and Public Understanding of Psychological Science encourages the development of evidence-demonstrated interventions that apply well-established principles to improve the teaching of psychological science. The objectives are to extend the validity of research from controlled contexts to naturalistic postsecondary learning environments, to determine the necessary conditions for interventions to succeed, and ultimately to design the strategies needed for others to implement successful interventions in their own teaching contexts.

“There is a real need for translational research to bring tested interventions to real learning environments” said Tracy Zinn, chair of the APS Teaching Fund Committee. This initiative’s authors envision standardizing the process for taking an established principle from research and systematically moving it through levels of evaluation from an individual classroom intervention to a generalizable, evidence-demonstrated design.

Successful proposals for this initiative will systematically evaluate the effectiveness of interventions by attending to potential costs and benefits, issues that may arise with their implementation, and the ways in which intervention outcomes may interact with other variables, particularly addressing any limiting factors or additional variables in classroom settings that would not be evident under more controlled conditions.

One way to translate principles of psychological science into effective interventions is to emulate the process used in the field of medicine to develop effective treatments from promising laboratory discoveries. For example, retrieval practice (sometimes referred to as practice testing) has been shown to facilitate learning in numerous controlled classroom experiments (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Researchers have developed interventions based on the principle of retrieval practice that can be used by teachers independently (e.g., Agarwal, Roediger, McDaniel, & McDermott, 2013). The next step in the translation process would be to test those interventions as they are used in teaching psychological science and evaluate how well the interventions work. Translating research into interventions, and then applying and evaluating interventions under realistic learning conditions are critical elements for improving the teaching of psychological science.

See the Request for Proposals for more information about this initiative.

References

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving Students' Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology. *Psychological Science in the Public Interest, 14*, 4–58, http://dx.doi.org/10.1177/1529100612453266

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