

Ed Tech Rapid Cycle Evaluation Coach

Rapid Cycle Evaluation Overview

INTRODUCTION

In an ideal world, as you decide whether to continue using an educational technology or to purchase a new license, you would base your decision on how well the product meets your needs and improves outcomes. Mathematica Policy Research, the U.S. Department of Education, and SRI International are supporting quick-turnaround evaluations to help schools test and evaluate these products. We call this process a Rapid Cycle Evaluation (RCE). The findings generated through this process can help you make decisions by providing you with evidence regarding how well an educational technology works.

We have built a free, web-based toolkit—the Ed Tech RCE Coach—that will guide you through the steps of conducting an evaluation. As you move through the Ed Tech RCE Coach, the tools will help you to design and conduct your own product evaluations and pilot tests.

The RCE Coach can help you answer several important questions:

- Does a specific educational technology program lead to the student outcomes you want to see?
- Should you keep paying for a software tool you're already using?
- Does a software tool support more effective teacher professional development?
- How should I set up an effective pilot?

EXAMPLES

Several districts have already begun conducting RCEs:

- **A school district in Mississippi** is conducting two cycles of evaluations of a personalized English language arts technology used with struggling readers. For both cycles, the district is conducting **randomized controlled trials**¹ to evaluate the effectiveness of the technology. First, the district investigated the effect of using the technology in a summer school program. It compared the standard curriculum without the technology to a curriculum with the technology during a four-week summer reading program. The results of the summer evaluation will inform the district's use of the technology during the full school year, with the

¹ A **randomized controlled trial**, or RCT, is a type of study in which a lottery or other random process determines the groups that will be compared. With a well-implemented RCT, you can be confident that the educational technology you're studying caused any differences in outcomes between the two groups.

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aim of informing further expansion of the program. This is a perfect example of the cycle part of Rapid Cycle Evaluations.

- **A charter school system in Texas** was interested in how a reading technology used by individual students as part of a supplemental reading program affected student reading achievement. A limited number of schools had already implemented the technology, so the school system used a **matched comparison design**² to evaluate the effects. The charter school system investigated the effects by grade, and the results informed its decision about whether to implement the technology in other schools throughout the district.
- **A district in Illinois** is interested in how several technologies that have been purchased (covering both math and English language arts) contribute to student achievement. Currently, the district plans to use a matched comparison design to evaluate the effectiveness of the various technologies.
- **A district in Colorado** wishes to test how a professional development support product can aid implementation of a new literacy curriculum. Teachers will be invited to participate in the training program, but only a subgroup will use the software. The district will analyze outcomes using teacher surveys to determine whether use of the product is associated with better results.

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² When it is not possible to create groups based on chance (as an RCT does), a **matched comparison design** attempts to create groups that are as similar as possible. It does this by using data on characteristics of students, teachers, or schools to create groups that are similar on key factors that could be related to outcomes.