

Guide: Think about how you will use the results

We'll use this tool to think about how the answer to your research question will inform the decisions you make regarding your technology. The following questions will help you prepare you to think about the relationship between your results and the technology costs and stakes associated with your decision.

When making decisions, it is important to think about the costs of the technology you're considering and the risks associated with your decision.

For example, you may be trying to decide:

- Whether to keep paying for a software tool you're already using
- Whether to buy licenses for a tool you're piloting on a trial basis
- Whether to change how teachers and/or students use the tool, based on a new approach tested in your evaluation

1. WHAT IS THE COST OF THE EDUCATIONAL TECHNOLOGY?

The cost of a technology will probably be a factor in your decision about how big its effect has to be in order to be a good value. Cost might also influence how certain you want to be that the technology has the desired effect.

Q1. How much do you pay (or save) per user to use the educational technology?

Examples:

- It costs approximately \$20 per student to use the educational technology
- It saves approximately \$1,000 per classroom to use the educational technology
- We're not sure. We believe using this tool will save teachers 20 minutes per day on prep time.

Answer:



2. WHAT WOULD SUCCESS LOOK LIKE?

The RCE Coach will calculate the likelihood that the educational technology has an effect *at least as large* as the number you choose here. The units reflect whatever you are using to measure outcomes. For example, if you are looking at student performance on a test, the units would be points. If you are hoping to see an increase in a reading test score, would a one point increase, on average, be a meaningful increase? What about 5 points?

The RCE Coach will tell you: There is an X% probability that the intervention increases the outcome by Y units or more. In this step you are selecting the value for Y.

CONSIDER...

This number could be 0 or even negative. A 0 means that you would consider any increase in the outcome a success, as long as it is positive. If the technology is saving you a lot of money you may be willing to consider any change that is greater than a small negative number a success.

Q2. How many units would the outcome need to increase by in order for you to consider the educational technology successful?

Example:

There is a 91.1% probability that the intervention increases the outcome by 0.25 units or more.

Answer:

3. HOW CONFIDENT DO YOU WANT TO BE?

It is a rare occurrence that we have enough evidence to be nearly certain (close to 100% certainty) that an ed tech product is producing the desired results. Most of the time we have to make choices with incomplete evidence. Thinking forward to your results, what probability would you need to be comfortable concluding that the educational technology is moving the needle?

As you think about what the probability threshold would be in order for you to conclude that the technology had the intended effect, consider the stakes involved. You may want a higher level of certainty if your results will influence a high stakes decision than if your results will be used for a lower stakes decision. For example:

- High stakes – if you are deciding whether or not to implement a district-wide curriculum
- Low stakes – if you are deciding how to use a small amount of class time



Example:

The RCE Engine will tell you: There is an X% probability that the intervention increases the outcome by Y units or more.

i.e. There is a 91.1% probability that the intervention increases the outcome by 0.25 units or more.

In this step you are selecting the value that you will compare X to. If X is less than your chosen value, you would not be confident that the technology is moving the needle. If X is greater than your chosen value you would be confident that the technology is moving the needle.

i.e. If you selected 95% in this step, you would conclude that the technology is not moving the needle because 91.1% is less than 95%.

Q3a. If I learned that there was a percent probability that the educational technology increased the outcome by the number of units selected in question 2 or more, I would feel comfortable concluding that the educational technology did not have the intended effect.

It is also important to think about your threshold for concluding that the educational technology *did not* have the intended effect.

Q3b. If I learned that there was less than a percent probability that the educational technology increased the outcome by the number of units selected in question 2 or more, I would feel comfortable concluding that the educational technology did not have the intended effect.



4. WHAT WILL YOU DO IF...

- a) ... it is likely that the educational technology has the intended effect?
- b) ... it is not likely that the educational has the intended effect?
- c) ... the results are inconclusive?

This rapid-cycle evaluation will provide you with 1 of those 3 answers to your research question. It is important that you think what you will do under each scenario.

Examples:

If it is likely that the educational technology has the intended effect...

We will roll out eZumi to all students in grades 3-5.

If it is not likely that the educational technology has the intended effect...

We will not renew our eZumi license for the next school year.

If the results are inconclusive...

We will collect more data to get a higher level of certainty about our results.

Q4a. If we learn that it is likely that the educational technology has the intended effect, we will...

Answer:

Q4b. If we learn that it is not likely that the educational technology has the intended effect, we will...

Answer:

Q4c. If the results are inconclusive, we will...

Answer:

Ed Tech Rapid Cycle Evaluation Coach

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