
BANG FOR THE BUCK: USE RESEARCH TO MAKE BETTER PURCHASES

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ADVANCED
EDUCATION
MEASUREMENT

FOR SCHOOLS, COST EFFECTIVENESS IS A MUST

- Clear limits on how much money even the most well-funded districts have.
- Those limits are more restrictive than other sectors of the economy face.
- **With every purchase you make, you need to save whatever money you can.**

TOO OFTEN SCHOOLS FOCUS ON “COST” AND NOT “EFFECTIVENESS”

- The nightmare when a major purchase just doesn't work
- A system that does not provide what educators need is not cost effective. It's just cheap.
 - And it's not even cheap.
- True cost effectiveness ensures schools get effective solutions at the lowest possible cost.

RESEARCH IS ONE OF THE KEYS TO TRUE COST EFFECTIVENESS

- Research is a key component of both components of cost effectiveness.
- The right research can help you make sure that your districts goods and services achieve your desired outcomes and save your district money.

IN THIS SESSION WE WILL DISCUSS

1. What financial and academic benefits your district can achieve from involving research in purchasing decisions
2. How to recognize good effectiveness research
3. How and when a best-practices district uses research in purchasing decisions



HOW RESEARCH CAN IMPROVE PURCHASING DECISIONS



WHAT IS “EFFECTIVENESS RESEARCH?”

- Also known as “efficacy research”
- **Research that examines whether a good or service achieves its stated objective**
 - Example: At the end of third grade, do classes using a specific leading curriculum show greater increases in learning skills than classes using other curricula?
- Education lags behind other sectors of the economy in
 - The quality of effectiveness research studies
 - The understanding of consumers that strong efficacy research is their right.

WHAT QUALITY EFFICACY RESEARCH SHOULD DO FOR YOUR DISTRICT

- You will only purchase goods and services that have proven to achieved desired outcomes with districts similar to yours.
 - In other words, your kids are more likely to learn.
- **You will save money. Your goods and services will**
 - have longer life cycles. Effective products need replacement less often.
 - require fewer manpower hours from district personnel for support, troubleshooting, maintenance, etc. Effectiveness research can examine and reliably predict such things.
 - save big on support and “added feature” costs. See above.



WHAT GOOD EFFECTIVENESS RESEARCH LOOKS LIKE



HOW DO WE KNOW SOMETHING IS WORKING? FOUR TRAITS OF GOOD RESEARCH

1. proposes a clear hypothesis that links a good or service to an intended outcome.
 - Example: Program A leads to greater gains in reading skills than Programs B, C, and D.
2. employs measures of success that capture the most important parts of an intended outcome
 - We will use scores on NWEA 2nd (as a baseline) and 3rd Grade Reading EOG Exams to measure growth in reading skills.
3. collects data from measures in the most rigorous fashion possible.
4. allows for the possibility that the hypothesis is not accurate

THE ESSA'S FOUR TIERS OF RESEARCH

1. “Strong” evidence comes from randomized controlled trials.
2. “Moderate” evidence comes from quasi-experimental designs and advanced statistical design.
3. “Promising” evidence comes from correlational studies with controls.



When used correctly, studies from all three of these tiers can provide evidence of effectiveness that social scientists would find compelling.

THE FOURTH TIER

- “A state or provider can show that a program’s rationale is based on high-quality research.”
 - Such research makes up the majority of effectiveness studies in education.
- **However, most social scientists and experts from other fields would not accept this evidence as sufficient to demonstrate program effectiveness.**
- The difference between Tiers 1-3 and Tier 4
 - Tiers 1-3: “Here is evidence our product does what it should.”
 - Tier4: “Here is the evidence we used to design our program, but we don’t know whether it actually works.”

RECOMMENDATION: DEMAND VENDORS PROVIDE EVIDENCE OF EFFECTIVENESS FROM THE FIRST THREE TIERS

- The first three tiers provide compelling evidence that the program achieved its intended effects over a large sample of students.
 - Best “proof” we have that it will work for your kids
- **Ask of your providers: “Do you have effectiveness research that meets the ESSA’s evidence standards, Tiers 1-3?”**



HOW TO USE RESEARCH IN PURCHASING DECISIONS



STEP 1: KNOW WHAT OUTCOMES YOU WANT YOUR PRODUCT TO ACHIEVE

- Effectiveness research measures the record of goods and services to achieve a desired outcome.
- Therefore, to evaluate a product, you need to know what outcomes you hope it will achieve, and how you would measure achievement.
 - Then, you can ask the right questions of people who hope to sell you something.

EXAMPLE: STUDENT INFORMATION SYSTEM

- Every district has an SIS or something that fulfills that purpose. We know we need one.
- But we will make a better selection if we take some time to define how we would measure SIS success.
 - What percentage of necessary information does it store?
 - How reliably the system stays online?
 - How easily educators can access necessary information?
 - How many hours do district personnel need to provide in support, maintenance, troubleshooting, etc.?

A strong executive team will build these kinds of discussions into every level of purchasing.

STEP 2: HAVE SOMEONE WHO IS RESEARCH SAVVY INVOLVED WITH ALL MAJOR PURCHASES

- Understanding evidence quality is like riding a bike.
 - Everyone can and should do it.
 - The highest level requires a specialist.
- Fully understanding the mountains of evidence vendors will throw at you requires the right person.



WHAT DOES AN IDEAL CANDIDATE FOR YOUR DISTRICT'S RESEARCH TEAM LOOK LIKE?

- Preferably a Ph.D. in sciences and/or social sciences
- Strong background in measurement, psychometrics, research design, and quantitative and qualitative methodology
- You may have people on staff who, with a little extra support, can fill this role.

WHERE TO FIND RESEARCHERS

- The Strategic Data Project
 - “Recruit ‘data fellows’ ...[that] bring impressive credentials in statistics, data management, and research methods”
 - “Agency fellowships” that train existing district personnel in cutting-edge research skills.
 - Periodic conferences and institutes for district leaders
- AEM can help you understand the research on
 - What qualities certain products perform better than others
 - Which vendors provide the highest quality evidence of program effectiveness



STEP 3: BE READY TO SPEND NOW TO WIN LATER

- Reward the providers that you and your research team determine offers the highest quality evidence of program effectiveness.
 - Be willing to spend more at time of purchase.
- In the long term, you will save money.

MORE IMPORTANTLY, YOU WILL ALSO SAVE KIDS.



SUMMARY OF RECOMMENDATIONS

1. Define the outcomes you want a product to determine before you buy
2. Make sure you involve researchers in every step of major purchasing decisions.
3. Demand providers show evidence of effectiveness that meet Tiers 1-3 of the ESSA's standards.
4. Prioritize proof of effectiveness in purchasing decisions.



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THANK YOU!

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