

In search of feasible fidelity

When deciding whether to adopt an evidence-based approach, educators should weigh the costs and benefits, explains **David Andrews**, and be prepared to implement it with fidelity



David Andrews speaking at the University of York's Inaugural Institute for Effective Education Conference last year. This article is an adaptation of the speech he gave.

EDUCATORS WHO REMAIN UNAWARE of the need to make data-driven decisions and adopt evidence-based practices to improve student learning either live in severe isolation, or choose to ignore the call. The call for the use of data-driven decisions and the implementation of evidence-based practices in education permeates universities, government agencies, professional associations, and both the non-profit and for-profit sectors of education.

The consistent message regarding the importance of using data to improve student outcomes has led to a noted increase in formal testing (summative assessments) and associated accountability measures in schools. There are also promising increases in the use of ongoing assessments (formative) solely used to improve the day-to-day

educational experiences of students. Nonetheless, the growth of implementing our most scientifically proven, evidence-based approaches continues to lag behind other efforts to use data in making educational decisions.

Educational researchers are working diligently to develop, scientifically evaluate, and refine evidence-based approaches to maximize student learning. The result is a growing list of evidence-based approaches, which are described and documented in repositories like the Best Evidence Encyclopedia (BEE) website (www.bestevidence.org). Given that most educators are passionate about student learning, one might assume that teachers and their principals queue up in

droves to implement the most evidence-based strategies and programs. Intuitively, educators worthy of their chalk would clamor to use “what works.” In reality, the movement toward sustained adoption of evidence-

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One reason for the slow, and perhaps unexplainable, reluctance to adopt evidence-based approaches is an incomplete understanding of what is required to adopt and implement these approaches with fidelity. Fidelity means implementing

the approach exactly as it was developed and tested. Without fidelity, there are no assurances that expected outcomes will be achieved.

Adopting and implementing an evidence-based approach requires faith in the presented evidence, followed by a commitment to the appropriate implementation fidelity. Understanding the depth of the commitment required will determine whether or not the approach “works” in specific settings for specific educators and their students. Consequently, educators must evaluate the feasibility of the fidelity that is required to get the desired outcome. This may appear a daunting task, but it can be approached systematically in a series of considerations for choosing and sustaining a specific evidence-based approach.

Choosing to adopt

The choice to adopt an evidence-based approach begins with a cost-benefit analysis. A series of questions should be asked by anyone considering adoption, and these are included in the table.

Some costs and benefits are direct and some are indirect. Cost includes everything that is required to get a positive outcome. Typical and obvious direct costs are related to materials, training, and personnel. These costs are easy to estimate and are usually available from those who market a given evidence-based opportunity. There are, however, other less-direct costs associated with implementing any new approach. These

less-direct costs include time commitments, cost to culture and climate, and various unanticipated supports. Educators who are considering whether or not a specific evidence-based approach “will work” for their situation must be aware of both the direct and indirect costs associated with adoption. Failing to understand and commit

Cost-benefit analysis questions

Direct	Indirect
Cost	
How much do the materials cost, and do they duplicate other materials that need to be purchased?	How much instructional time will be required from personnel and students?
How much does the training and ongoing support cost? How much time will it require?	How much time will be expended in gaining teacher and staff support?
Will there be a need for additional personnel?	How much prep time should teachers expect outside the classroom?
Are there future hiring decisions related to staff skills that will have a fiscal impact?	What are the hidden costs in ongoing support, adoption of pre-requisite programs, remediation for struggling staff, etc?
What is the cost of the new technology or equipment required to implement the approach?	How much political capital will be expended in changing to a new approach?
Benefit	
What are the actual academic gains that can be expected? Are these gains practically significant in addition to being “statistically significant”?	What are the expected improvements in staff climate and morale?
What non-academic gains in attendance, discipline, parent engagement, or reduced academic disruptions can be expected?	What are the expected benefits in retaining teachers and staff?
What are the direct savings of instructional time associated with implementation?	What are the expected benefits from the general skill development of teachers?
What are the direct savings associated with staffing?	What are the expected benefits for leadership development?

to the entire cost (direct and indirect) puts the fidelity of implementation at risk and negates any claims that the approach is evidence-based.

Analysis of the benefits of a specific evidence-based approach should always begin with a complete understanding of the expected impact on student learning. Potential adopters should demand more than just statistically significant evidence that a strategy “works.” Educators must explore the practical significance of a given approach in terms of actual gains that can be expected. For example, how many children can be expected to be reading at grade level within a specific time period, given the high-fidelity implementation of a specific literacy approach?

In addition, it is important to understand other benefits that can be expected from the adoption of a specific approach. Two substantial considerations are a) the overall impact on non-academic factors (like attendance and discipline) that predict academic performance, and b) the overall impact on the amount of available instructional time. Educators will be likely to note that the impact of a specific approach on the amount of instructional time available in a given day can be positive or negative.

Some benefits are even less direct and cannot be assessed until a longer period of time has passed. Increased staff retention rates due to improved job satisfaction are

What we know

- Evidence-based approaches are not being widely adopted in classrooms.
- A cost-benefit analysis should be the starting point when deciding whether to adopt an evidence-based approach.
- Adopting and implementing an evidence-based approach requires faith in the evidence and an ongoing commitment to delivering it with fidelity.
- Teachers’ enthusiasm must be maintained.

more difficult to assess than increased student scores on standardized tests. Nonetheless, retention of high-quality teachers is essential to the success of longer-term reform, and improvements in these rates as a result of implementing a specific practice should be explored.

A cost-benefit analysis can be completed by simply comparing the list of costs to the list of benefits. Sophisticated methods of weighting the costs and benefits could be constructed, but are probably not necessary. Rather, educators should qualitatively compare the two lists and determine which warrants action. When benefits outweigh the costs, adoption should follow. If unclear patterns emerge from the cost-benefit analysis, the approach being considered might well be avoided.

Sustaining adoption

Sustaining adoption of an evidence-based approach is as important as the decision to adopt and the initial implementation. Furthermore, sustaining the adoption can be more difficult than choosing and getting started. Initial adoption is sometimes accompanied by the excitement of innovation and the motivational energy associated with the novelty. As the novelty wears off, educators must be cognizant of the demands of sustaining the approach.

Plans for adopting an evidence-based approach should include a plan for sustaining the approach. How will the continuation funds be generated? How will new personnel be trained and assimilated into the approach? Will there be costs associated with upgrading to newer versions of the approach? All of these questions should be addressed in the sustainability plan.

It is also important to provide enough implementation time to get the expected results. Educators can be impatient, especially when the stakes are high. Some approaches take time to be implemented with the appropriate fidelity. Others have an inherent delay in the timeline for getting results (e.g., a focus on graduation with seventh graders won’t yield pure outcome results for up to six years). Realistic timelines should be articulated such that evidence-based programs are given enough time to demonstrate that they are achieving the desired impact.

Sustaining programs can also be achieved by celebrating “early wins.” Educators are more likely to sustain a given effort if they can see the immediate benefits of the effort. Sometimes, it is necessary to be creative in identifying early wins so that educators do not lose their excitement and commitment to a specific approach. If educators do lose their enthusiasm, a booster session of training or some other incentive may be necessary to reinvigorate implementation.

Whether adopting or sustaining an evidence-based approach, the key to success is constantly promoting and celebrating feasible fidelity. If the fidelity requirements of a given approach are not feasible, there is little likelihood that the approach will have the desired impact.

About the author

David Andrews is dean of the Johns Hopkins University School of Education and was the founding dean of Ohio State University’s College of Education and Human Ecology. Throughout his career, he has been committed to improving academic and behavioral outcomes for at-risk children and young people.