



Implementing Literacy Programs to Improve Student Achievement

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“America is losing its place as a world leader in education, and in fact is becoming less educated. Among the 30 OECD free-market countries, the U.S. is the only nation where young adults are less educated than the previous generation. And we are losing ground to other countries in educational attainment.”

“While we score as one of the highest countries in numbers of well educated people we also score near the top in the largest number of people at the lowest education levels—a form of inequality that affects all Americans.”

National Commission on Adult Literacy, 2008



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Implementing Literacy Programs to Improve Student Achievement

Since the 1950s education has focused on developing curricula and instruction methods that are effective for teaching reading, writing, arithmetic, and civic responsibility. Innovators and researchers have been very productive and education methods have improved with each generation (Hattie, 2009). Ironically, student achievement has not kept pace.

The National Assessments of Education Progress show that literacy has not changed for students since the first national survey in 1971. For the past 40 years, literacy scores for 9-year olds have remained within a few points of 220 on a 500-point scale (Grigg, Daane, Jin, & Campbell, 2003; National Commission on Excellence in Education, 1983). National surveys conducted by the Institute for Education Sciences in 1992 and 2003 show consistently poor outcomes in adult literacy as well (Kutner, Greenberg, Jin, Boyle, Hsu, & Dunleavy, 2007).

The reasons for the gulf between effective education practices and student outcomes are beginning to be better understood. It turns out that students cannot learn from effective education practices they do not experience. If teachers do not use education innovations and evidence-based practices in their daily interactions with students, then students cannot benefit from those practices. The question becomes how to help all teachers learn to use education innovations and evidence-based practices in their interactions with each student each day.

The absence of an implementation infrastructure seems to be the missing link. It appears the math is simple:

$$\text{Effective education practices} \times \text{Effective implementation methods} = \text{Effective student outcomes}$$

As in any multiplication problem, if any factor is zero the product is zero. Education innovations and evidence-based practices cannot lead to improved student achievement without using effective implementation practices. As suggested in the formula, good implementation practices have a multiplier effect - they magnify the effects of innovations and evidence-based practices.

Implementation Science and Best Practices

Across human services and education, implementation frameworks and best practices are emerging and becoming better understood. Major reviews of the literature (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004) and assessments of best practices (e.g. Aladjem & Borman, 2006; Blase, Fixsen, Naoom, & Wallace, 2005; Vernez, Karam, Mariano, & DeMartini, 2006) have helped to clarify the implementation component of the equation.

The first big idea to learn about implementation is that the principles are like gravity: implementation factors are present and working all the time whether we intend them to be or not. We can take advantage of implementation components and use them to benefit students, or we can ignore them and take our chances with the learning trajectories we create in education environments.

Syntheses of current knowledge have produced quantum leaps forward in our understanding of implementation. This Brief will summarize a few of the areas most important to education: implementation stages, implementation drivers, and implementation teams.

Implementation Stages

Activities over time are required to learn about and make good use of effective education practices. These activities can be done purposefully, efficiently, and effectively to produce consistent and reliable outcomes for students. Or, they can be done haphazardly with inconsistent and unreliable outcomes for students.

Most educators are familiar with the activities that comprise the *Exploration Stage* of implementation. Formal or informal needs surveys are done to help determine the most pressing unfulfilled educational needs of students. Teachers and administrators attend meetings and read materials to learn about education innovations and other resources that might fulfill the needs. Teams of individuals are developed to study the problems and potential solutions and to recommend a course of action.

From an implementation point of view, it is important to have a clear view of the needs, understanding and buy in for the potential solutions, and agreed-upon ways to assess progress toward improving student outcomes. It is equally important to develop a clear view of how the agreed-upon intervention will be implemented (consideration for each of the Implementation Drivers described below).

The *Installation Stage* can be a surprise to some. Deciding to use an innovation is just the beginning. The next stage is to gather the resources needed to use the innovation as intended. People, space, scheduling time and activities, development of materials, selection and initial training of teachers and staff, discussions with parents and stakeholders, and so on all require time and thoughtful preparation.

Planning during the Exploration Stage to take the time for preparations during the Installation Stage is essential. Adequate preparation is a critical first step to help any innovation get off to a good start in the busy life of teachers, staff, and administrators.

The *Initial Implementation Stage* begins when teachers and staff first begin to use an innovation in their interactions with students. Innovations, by definition, represent new ways of educating students. Teachers are not comfortable or confident at first and students may react to the changes in undesirable or unintended ways. Given their discomfort with the new ways of education teachers and staff may decide to modify the innovation to make it more tolerable or simply retreat to the old and familiar ways of teaching. It is at this point that many innovations fail to be used as intended and, consequently, are not as effective as intended.

During the Initial Implementation Stage all of the Implementation Drivers described below come into play and are crucial for obtaining the intended outcomes of an education innovation.

The *Full Implementation Stage* is reached when half or more of all the teachers and staff are using the innovation as intended and are realizing the intended student outcomes. After a year or two of full implementation, the innovation is no longer an “innovation,” the innovation and the implementation supports for the innovation have become standard practice in the education setting. The goal of consistently using the innovation as intended and reliably producing intended student benefits is being achieved year after year, from one cohort of teachers and students to the next.

Without the systematic use of implementation science and best practices, the best data available suggest that only 14% of innovations or evidence-based practices reach Full Implementation and that process often requires about 17 years (Balas & Boren, 2000).

Implementation Drivers

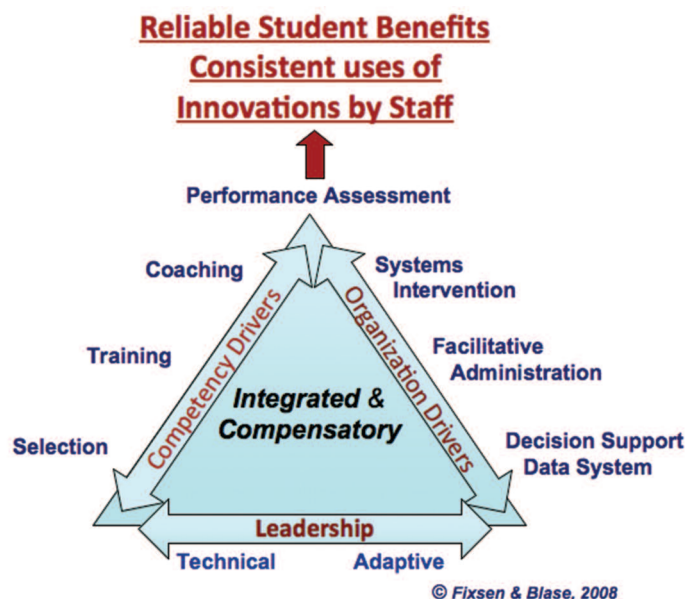
Setting higher standards for student achievement makes sense only if teachers, staff, and education environments are equipped to meet those standards. Elmore (2002) and Barber & Fullan (2005) make the case for developing the capacity of education systems to support teachers and staff so they can make full and effective uses of innovations to markedly improve student achievement.

Implementation Drivers are multi-level supports for the uses of innovations in education environments. There are three integrated and interactive sets of implementation drivers to a) develop and sustain staff competencies, b) establish hospitable organizational environments, and c) assure effective leadership. The components are shown in the figure below.

Given that innovations represent new ways of work, those new ways of work must be learned and used in interactions with students. Regular assessments of teacher performance provide an indication of the extent to which each teacher is using the innovation as intended. *More importantly, the results of the teacher performance assessments are used to assess the effectiveness of the implementation supports for teachers and staff.*

If teacher performance is below expectations, the focus is on strengthening the processes for selecting, training, and coaching teachers to use the innovation. This is a critical distinction. One teacher impacts learning for 25 students. One coach impacts 6 teachers and (indirectly) 150 students. Thus, getting the Competency Drivers right can significantly magnify the outcomes of any innovation or evidence-based practice (Joyce & Showers, 2002; Schoenwald, Sheidow, & Letourneau, 2004).

The Competency Drivers cannot function well or for very long without changes in the organization (school, district) to support the new ways of work for teachers and to support the functions of Implementation Teams at building and district levels. Ready access to data on the effectiveness of the Competency Drivers and student outcomes helps to guide decisions about staffing, schedules, resource allocation, and interactions with families, stakeholders, and systems officials. The Organization Drivers support effective interventions and effective implementation practices.





Implementing Literacy Programs to Improve Student Achievement

Leadership is critical to the overall enterprise of education at all levels - classrooms, buildings, districts, regions, State systems, and Federal departments. Some problems are more technical and call for more managerial solutions. Other issues lack agreement about the nature of the problem or an approach to a solution and call for more adaptive leadership. In general, organizations are over managed and under led. Part of the role of an Implementation Team is to help leaders acquire the skills required for the full range of problems facing education. Adaptive leadership is especially critical for managing the change process as innovations are implemented fully in education environments.

If the Competency Drivers are fully supported by Organization Drivers and kept on track with Leadership Drivers, then teachers and staff routinely meet the performance criteria and reliably produce intended outcomes for students. This is true in education and across the full spectrum of human services as well as in business, manufacturing, and so on. Effective implementation is effective implementation wherever innovations are tried.

Implementation Teams

Teachers and staff do the work of educating students. Implementation Teams do the work of supporting teachers, staff, and administrators. Raising standards for teachers requires establishing Implementation Teams to support improved teacher performance and improved student outcomes.

Implementation Teams consist of three or more individuals with considerable expertise in operationalizing innovations, implementation best practices, and the uses of a variety of improvement cycles for practices, programs, and systems. Individuals with this expertise work in Teams. Unlike individuals who come and go, teams can be self-sustaining.

Implementation Teams help to carry out the myriad activities involved in the Implementation Stages and they assure the uses of effective practices for each of the Implementation Drivers. Implementation Teams at building, district, and regional levels form an integrated infrastructure to support the full and effective uses of a variety of innovations and evidence-based programs in education environments across a State.

With the systematic use of implementation science and best practices, the best data available suggest that about 80% of innovations or evidence-based practices reach Full Implementation and that process requires about 3 years (Fixsen, Blase, Timbers, & Wolf, 2001).

Summary

Adult education outcomes will improve markedly when an infrastructure for implementation supports has been developed. Individuals must experience evidence-based interventions if they are to benefit from them. Implementation Stages and Drivers in the hands of competent Implementation Teams can provide the support educators need to make full and effective use of effective education practices.

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