



GUEST OPINION

Improving education, one day at a time

February 04, 2009, 5:52 p.m.

JOHN R. BERGAN
Tucson Citizen

A parent typically asks a child, "What did you learn in school today?"

It's not a bad question. In fact, it is an important question. It is not a question, however, that typically crosses the minds of policy makers.

They tend to be concerned with the knowledge students have acquired over time.

That concern has served the nation well. Policy wonks have justified the pursuit of educational reform. They have detailed the nation's achievement standing globally and across states, and they have documented changes in achievement over time.

What they don't provide are the arguments and the data needed to improve instructional effectiveness. This is a serious shortcoming.

Improving instructional effectiveness is arguably the most important educational policy issue of our times.

There is agreement that to remain globally competitive, we must elevate student achievement. In order to do so, we need to rethink the information required to guide decisions.

Learning occurs daily. It is reasonable to argue that increases in learning can be achieved by instructional changes made one day at a time.

The American educational system remains mired in the paper-based world of the 20th century. The amount of information managed and the ability to adapt to changing conditions were severely limited in that world.

Conceptualizations of instruction and assessment were cast in much larger chunks than those needed today. Curriculum was codified in texts used without change for several years. Assessments were infrequent and used mainly to grade students.

The information needed to improve education one day at a time is very different from the information available in a paper-based world.

For example, if we want to know whether children have learned to multiply fractions, at a minimum we need to document the instruction, when it occurred, the students involved, and the extent of student mastery of the material.

To improve education one day at a time, it will be necessary to gather instructional information for all students and all of the capabilities being taught.

There are many school days, many students and many capabilities to be learned. Documenting daily learning will require a large data collection and management effort. Fortunately, today's technology can meet the challenge.

There are three significant benefits to be realized through educational change one day at a time:

- The first is an efficient approach to the task of elevating student achievement. Improving education one day at a time supports focusing on instruction delivered and evaluated in a brief time span. Focus on brief procedures can pinpoint procedures not yielding desired results. Those procedures can be altered or replaced without replacing the entire curriculum.

- A second benefit involves support for instructional research. A focus on small instructional units calls for small scale research studies. Much of the knowledge that science has provided related to learning, memory and cognition has been attained by this type of research.

Small scale studies are inexpensive. They can be carried out without disrupting school routines and they produce results quickly. Thus, they support rapid instructional innovation.

- A third benefit is the development and maintenance of an instructional system that can adapt to changing conditions.

Educational standards and the procedures to monitor mastery of them are changing continually. These changes call for changes in curriculum and assessment at the local level.

When the components of an iis it realistic to assume that American education can be improved one day at a time? The technology is available. Moreover, pieces of the necessary technology are already in use.

Local assessments of standards mastery are widely used. There has been an explosion of online lessons, assignments and instructional activities. Finally, schools, researchers, and technology providers are working to implement technology to increase the level of student achievement one day at a time.

Our company, Assessment Technology Inc., is hosting a forum in collaboration with Promethean, WestEd and educators from school districts in five states to explore the possibility of implementing intervention systems to improve education one day at a time.

Will these efforts succeed? American educators, researchers and technology providers are among the most innovative professionals in the world. I wouldn't bet against them.

John R. Bergan, Ph.D., an author with more than 30 years' research in children's development,