Hanlon's Razor

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Never attribute to malice that which can be adequately explained by stupidity

What works is work!

Appropriate Use of Technology
Projectors, Powerpoints, Smartboards

Have you ever walked into a kindergarten classroom and noticed that the desks and chairs are very small and there is normally a bathroom with smaller size toilets sitting pretty close to the ground? I'm guessing if you have, you make an assumption the room is constructed that way because of the purpose of the room and the size of the children using it.

If you look at math classrooms around the country, you might notice they have a particular construction as well. The most obvious is the number of white or chalkboards in the room. In a typical math classroom, rarely would you see just two large boards, there are typically three or four. As there is a reason for having smaller furniture, rocking chairs, bookshelves, and bathrooms in kindergarten, there is a reason for having multiple boards in a math classroom.

In my book and in the training provided by the rpdp, I have discouraged math teachers from regularly using overhead projectors or powerpoint presentations. The reason is simple enough, my experiences, backed in educational research, suggests that teachers should leave completed problems on the board so students can view them in their entirety. They can look back at the steps they just completed as they move forward in the problem. Leaving the entire problem on the board enables students to get sense of how everything seems to fit together. It also allows students to see compare/contrast how similar looking problems are solved.

When math teachers introduce new concepts, often times they want to draw a picture and be able to refer back to the picture as they work through the problem, that takes board space. If the math teacher is trying to develop an idea or concept by having the students examine problems looking for a pattern, that also takes a lot of board space so students can look back at the problems to discover the pattern.

If teachers are using an overhead projector or powerpoint presentation, they are forced to go on to the next screen. By doing so, students lose the opportunity to visualize what is being presented to them in its entirety on an as needed basis. It's very difficult to see a pattern when the previous problems have moved off the screen. Hence, math classrooms typically have lots of board space. That's a good thing.

Schools and regions are now investing hundreds of thousands of dollars in new technology, often referred to as intelliboards or smart boards. These boards, like the overhead projector and powerpoint presentation, do not allow students the opportunity to see the concept or pattern developing or be able to see the whole picture from the start to finish because they have to go on to the next screen to finish the work. The incorporation of this technology flies in the face of what is described in the research as *best practices*.

Like all technology, there are appropriate times to use this technology.

I would clearly recommend more serious thought be given before buying technology to ensure it supports *best practices*. Many buy products, programs and services for the "WOW!" factor. It gives the appearance that progress is being made, but the reality is, and always has been, *what works is work!* Buying the razzle dazzle, glitzy, products with blinking lights, horns and whistles don't help students learn or result in increased student achievement. Too many educators are mistaking activity or having the most up-to-date toy for achievement. In fact some administrators are so enamored with the showmanship associated with the new technology they don't seem to realize when it is masking poor instruction.

Purchasing expensive technology that flies in the face of *best practices* and having school administrators direct teachers to use them on an almost daily basis so they can justify the costs is just nuts. Adding to this, since the teachers often don't know how to use them, more resources and time are spent training teachers on products rather than receiving professional development on what they teach, how they teach it, student performance, and changes that will result in increased student achievement.

This lack of focus flies in the face of the educator's priorities; increasing the pass rate on the HSPE, increasing the graduation rate, decreasing the dropout rate and ensuring our students are receiving a rigorous curriculum.

For those teachers not using technology, requiring them to write and leave up on the board the state's academic standards, the district's Power Standards, Kid friendly standards, Marzano Strategies, Kagan Structures, Essential Question, and the homework assignments for each subject or class leaves precious little space for instruction and has the same affect of using technology inappropriately. Rather than focusing on doing the job, we seem intent about just talking about how the job should be done.

At some point in time, public school educators will figure out that focusing on the professional knowledge of classroom teachers and how that knowledge translates into classroom teaching is what will increase student achievement – not the glitz of products, programs or services.