



Math Tidbits

*Maryland Common Core State Curriculum Framework
Maryland School for the Deaf*

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Dear Teachers,

Can it already be the year 2013? With a new year comes new resolutions. Last year, we all took a resolution to become more familiar with the Common Core standards and to implement them in our daily instruction. I feel that we have achieved that resolution, although the entire learning process will likely take years.

Speaking of learning, this issue contains summaries of some academic and news articles that I felt was relevant to our current instruction practices. It's not often we take the time to sit down and read about the latest trends in instruction and curriculum, so I have taken the liberty of identifying a few articles which I thought would make for a good weekend read.

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Links to Journal and News Articles

The National Assessment of Educational Progress (NAEP) studied nation-wide NCLB school data and found that setting higher standards do not harm, but *actually help*, struggling students. Read the full article at: http://www.educationsector.org/sites/default/files/publications/Equity_CYCT_RELEASED.pdf

New science K-12 standards are being developed by Achieve, the same organization that manages the PARCC consortium. Take a peek at their draft standards at: <http://www.nextgenscience.org/>

PARCC has released its calculator policy, which can be read at: <http://www.parcconline.org/sites/parcc/files/PARCCApprovedCalculatorPolicy-July%202012.pdf>

Although the Common Core standards have been adopted by at least 46 states, there is still plenty of argument for—and against—these standards being implemented. One such argument is that they don't promote creativity, an essential element of the future. Read the full article at: <http://www.washingtonpost.com/blogs/answer-sheet/wp/2013/01/15/common-core-standards-arguments-against-and-for/>

A master thesis done by Paul Glaser at Rochester Institute of Technology surveyed teachers of mathematics, college students, and interpreters found that only 8 out of 25 mathematical signs were consistently the same. The non-standardization has possible implications for student learning. Read the full article at: <https://ritdml.rit.edu/handle/1850/1052>

Formative assessment is essential to effectively implementing any curriculum, for it gives you insight into your students' understanding. Read the full article at: http://www.eyoneducation.com/bookstore/client/client_pages/pdfs/Oberdorf_TaylorCox_Formative.pdf (REQUIRES registration)

Links to Journal and News Articles

Discrete mathematics, a way of presenting math problems, can be used with all grade levels. Sometimes there is more than one right answer (*for example*: what is the most efficient way to serve lunch in the cafeteria?). The problem is usually based on real-world applications (*for example*: what is the shortest route to school? How do you determine that?). Student engagement is enhanced, because they are working toward what they feel is a purposeful goal. Researchers Claudia Pagliaro and Karen Kritzer, in their survey of 290 mathematics teachers (of the deaf) across the nation, discovered that even though teachers are familiar with discrete mathematics, they do not use them in instruction. They consider the concepts too complicated for their students. **More rather, they tend to assign superficial “practice exercises”** in which students apply a certain procedure. Students are not assigned problems requiring deep analyzing, reasoning, and logical thinking. Therefore, it is implied that teachers need to raise expectations of their students, recognizing that they are indeed capable of tackling discrete mathematics. Such instruction is crucial to our school’s mission, which calls for prepared life learners. The full article, “*Discrete Mathematics in Deaf Education: A Survey of Teachers’ Knowledge and Use*” can be found at: http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/american_annals_of_the_deaf/v150/150.3pagliaro.pdf

Marilyn Burns, founder of Math Solutions and well known mathematician, has published numerous articles on math education. They can be read at: <http://www.mathsolutions.com/index.cfm?page=wp10&crd=37>. You may especially appreciate her articles on integrating literacy and math. Additionally, Burns and her colleagues have also published their presentation slides from various conferences, and they can be viewed at: <http://www.mathsolutions.com/index.cfm?page=wp1&crd=407>.

If you have any journal or news articles that you would like to see included in this newsletter, please contact me at Julie.Tibbitt@msd.edu!