

# Notes 2 Nerds

February 21, 2023

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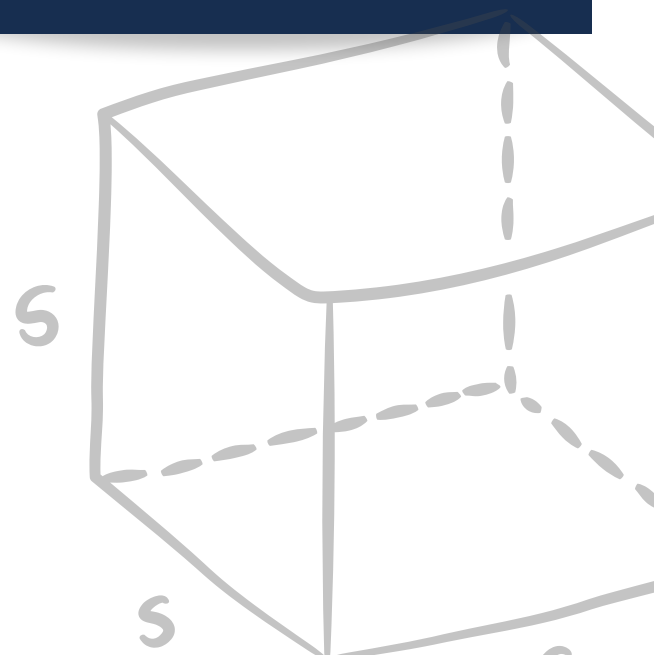
**Upcoming**

## Upcoming Events:

- [2nd Annual CCTM Conference: February 22, 2023](#)
- [Professional Development: High School, February 28, 2023](#)
- [Professional Development: Grades 3-5, March 1, 2023](#)
- [Professional Development: Grades 6-8, March 14, 2023](#)
- [Professional Development: Grades K-2, March 30, 2023](#)



Teacher Development and Consulting



You are asking - we are answering!...  
(click here to give us your feedback):

[Saturday Professional Development Survey.](#)

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# Director's Notes

## Forgive My Sports Analogy...

My son and I were talking this past weekend about why football teams so often punt on a 4th down with less than two yards to gain to keep possession of the ball. We are analytic buffs, and the data suggests that even the worst teams can earn more than 2 yards on any given play; yet for some reason, the sport views it as acceptable to give up possession of the ball even when there is a good opportunity for success.

It got me thinking about other areas where we settle for an acceptable loss versus the opportunity for success.

A resource teacher and I discussed the progress of a few educators we have worked with for several months. The teachers respond well to the coaching we give them in workshops - when we model lessons with their students and when we observe them in their classrooms. They even share unsolicited stories of successes with us. I have more than a few video clips, pictures, and social media posts of classrooms of engaged students and happy teachers. The teachers engaged students in dialogue with number sense routines, rich tasks, and student-to-student discussions.

Over time, they reverted to practices of unsuccessful methods of teaching, including:

- Too much direct instruction.
- An over-dependence on worksheets and computer drills.
- A procedural approach to teaching math.
- An overabundance of testing!

It resulted in learned helplessness, apathy, and off-task behavior for students. The very reason that we collaborated in the first place!

I understand the inertia to stay with the familiar, but I find it crazy to keep using these unproductive practices for student learning. As educators, we are punting because it is an acceptable failure when we choose poor methods of instruction over the opportunity for progress. Neither path is easy but one accepts failure while the other course has some probability of success.

As a parallel to thinking about teaching practices, I will describe a visit with students in the Honors College at CSU for a panel discussion on how technology has changed education. In the area of mathematics, students felt they spend too much time in computer-driven instruction! *Both during the pandemic and after they returned to in-person learning!* One young man described how he quit doing his math studies when he lost contact with his teacher and peers. Another told me how mind-numbing it was to sit and click on answer after answer. He would only level up gradually because if he went too quickly, he would only earn more complicated problems. My takeaway from the discussion with the students was they felt that computer technology used in most schools was an acceptable way of giving up on instruction - or punting! They craved the opportunity for teacher and student interaction.

The challenges that lay before us in education are daunting. And in no way am I advocating for teachers to bear the burden of going it alone or taking the blame. My point is, why do we make it so hard on ourselves as teachers when we choose a path that will be unsuccessful? Why do we give up - and punt - when we could succeed by keeping the ball and pressing forward?

Let me know your thoughts at [anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu).

Happy Maths,

Pete



# AN AWFULLY GOOD OXYMORON: NUMBERLESS WORD PROBLEMS

Submitted by Ms. Laura Stokes, CRMC Resource Specialist

The first time I saw the term 'numberless word problem' I was intrigued by the oxymoron - the notion seemed contradictory. How could a word problem be numberless? Once you dig into the idea, you see the focus is helping students understand the action in the problem. When students are “action” aware, they are able to decide whether their answer is reasonable.

Here is a quick synopsis of the numberless word problems format:

- Remove the numbers from a selected word problem, also, remove the “question.”
- Ask students to visualize the problem scenario.
- Hold the question until students have explored the action in the problem.
- Slowly add numbers to the scenario – ask students how the information changes their mental image of the story.
- Once students have all of the numbers, ask students to determine what question can be asked and answered.

The numberless word problem process stops students from “pulling out” the numbers – number plucking – in word problems and just selecting an operation, often addition. There is sense making and reasoning in their problem solving.

What do numberless word problems do for students’ reasoning skills?

Continued...



# Professional Learning and Cool Teacher Stuff

## Numberless Word Problems + Reasoning Skills =

Students focus on the action rather than searching for key words;

Students select an operation based on the action, not a guess;

Students are less likely to number-pluck because they focus on the action;

Students, knowing the action, can focus on the numbers  
and how to operate on them to produce a reasonable answer!

*How can you implement these problems in your classroom?*

Start by investigating Numberless Word Problems from Brian Bushart's site.

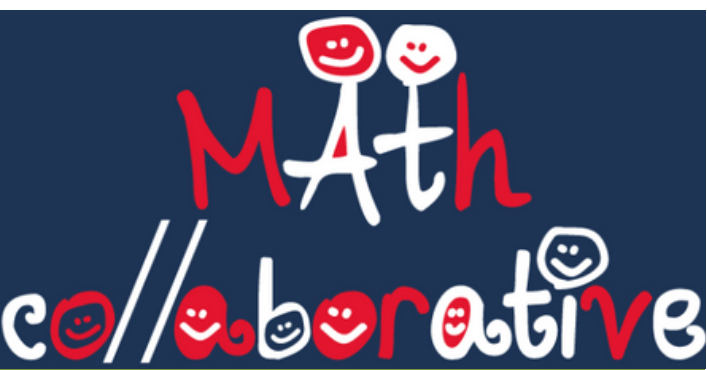
Bushart provides step-by-step instructions for creating your own numberless word problems. The best part is, if you scroll to the bottom of the page, you will find MANY PowerPoint files of numberless word problems.

Have fun exploring and then creating your own! Feel free to reach out to the Math Collaborative, and we will continue this conversation with you and your students.

When you're ready to write your own, here is a good post: [Writing Numberless Word Problems](#).

Once students work through word problems in this manner, they will see problems as stories with actions, no longer needing the numbers removed. Students begin approaching word problems with reasoning and notice relationships.





# REGISTRATION OPEN NOW!

**WHEN:  
TUESDAY,  
FEBRUARY 28, 2023  
8:30 AM - 3:00 PM**

**@ CSU, FRANK BROWN HALL**

**USE THE LINK OR SCAN  
THE QR CODE BELOW TO  
REGISTER TODAY:**

**[HTTPS://COLUMBUSSTATE.L  
IBCAL.COM/EVENT/10223146](https://columbusstate.libcal.com/event/10223146)**



*follow us*

@Columbusregionalmathematicscollaborative



@mathcollab



@CollabMath



Free Registration for:

CSU Students, teachers  
from Calvary Christian  
School, Muscogee County  
Schools, Russell County  
Schools, St. Anne Pacelli, and  
members of Delta Kappa  
Gamma Honor Society

## Algebra: Teaching Through Tasks - A Look at the New Curriculum

- This year's focus is on Algebra 1 - we will provide support in methods and content that will aid teachers of Algebra 1.
- **The approach we take will benefit all high school teachers.** We promise to engage and challenge you by experiencing proven strategies to engage your students and ignite your curiosity as a mathematician and teacher.
- **Even if you are not currently teaching algebra, this workshop will engage teachers of all classes.**



## REGISTRATION OPEN NOW!

**WHEN:**

**THURSDAY,  
MARCH 2, 2023**

**8:30 AM - 3:00 PM**

**@ CSU, FRANK BROWN HALL**

USE THE LINK OR SCAN  
THE QR CODE BELOW TO  
REGISTER TODAY:

[HTTPS://COLUMBUSSTATE.L  
IBCAL.COM/EVENT/10223217](https://columbusstate.libcal.com/event/10223217)



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CSU Students, teachers  
from Calvary Christian  
School, Muscogee County  
Schools, Russell County  
Schools, St. Anne Pacelli, and  
members of Delta Kappa  
Gamma Honor Society

## Active Thinker Problem Solving

If you are currently a Math Teacher or on the path to becoming a future Math Teacher, it is time to arm yourself with investigative powers for students that struggle!

- Tackling word problems;
- Taking a deep-dive into '3-Read Protocol';
- Exploring numberless word problems;
- Harnessing the power of open-ended resources;
- Investigating the 'Tool Kit.'

**The Struggle is Real! Join Us!**

Click on the  
links below  
to Register  
Today!



## **More Upcoming Professional Development Opportunities\***

**GRADES 6-8: MARCH 14, 2023**  
**TEACHING THROUGH TASKS**

**GRADES K-2: MARCH 30, 2023**  
**BUILDING A BRIDGE BETWEEN MATH & LITERACY**

\*No cost for CSU Students,  
Calvary Christian School,  
Muscogee County School District,  
Russell County School District, St. Anne Pacelli, and  
Delta Kappa Gamma Members

# The Math Masters Competition Needs You!



**HEY!!**

**We are talking to you, Master Teachers!**

**Sign up to volunteer  
Saturday, March 11, 2023**

**Click on the link  
to get started:**

**Volunteer  
Registration**



## BUILDING THINKING CLASSROOMS COHORT

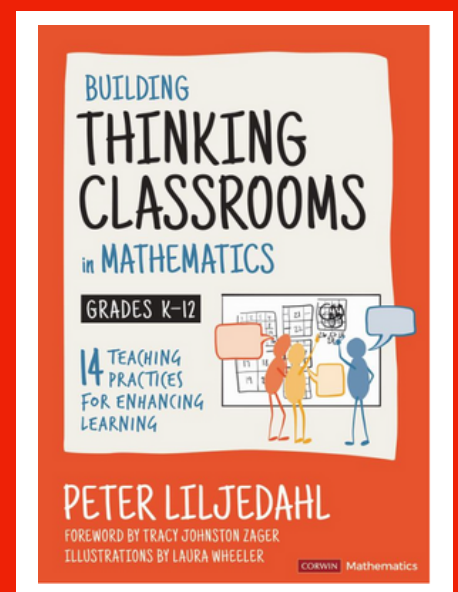
Are the things you are doing in class not connecting with students?

Would you like to engage your students more deeply?

Are you ready for a change that works?  
*(I know you have heard this before.)*

So, kick the tires and see if the promise fits.  
It costs nothing but your willingness to participate.  
We meet about once a month, after school, at Frank Brown Hall. We develop and share lessons for teaching your subject. We are looking to grow our Building Thinking Classroom Cohort with High School and Middle School teachers.

[Resource Link](#)



If you are interested,  
contact Peter Anderson:  
[anderson\\_peter2@columbusstate.edu](mailto:anderson_peter2@columbusstate.edu)



# 'Make It Count!' WANTS YOUR SCHOOL

## What is it?

The 'Make It Count' Project (MIC) aims to improve math fluency in second graders by building a foundation for sustained growth in mathematics. The partnership between Partners in Education and the Mathematics Collaborative (CRMC) @ Columbus State University pairs schools with volunteers who will visit second-grade classrooms to provide engaging and fun activities designed to build math fluency.

## Interested?

### Here is What You Need:

- Volunteers (CRMC and PIE will help recruit)
- Supervised space
- 'Make It Count' kit
- Identify students to participate
- School Point-of-Contact



## Call for Volunteers!

### You will need to:

- Attend one training session;
- Be available for one-hour each week at the designated time;
- Commit to being available from the first of November 2022 until the end of March 2023 (18 school weeks.)

### Interested?

Contact the Mathematics Collaborative:

[www.columbusstate.edu/crmc](http://www.columbusstate.edu/crmc)  
email: [crmc@columbusstate.edu](mailto:crmc@columbusstate.edu) or  
phone: 706-565-1475



# 2ND ANNUAL CCTM CONFERENCE

2023A



DR. LYA SNELL

## GUEST SPEAKER

Dr. Lya Snell serves as the Georgia Department of Education's Mathematics Program Manager, where she works to ensure that all students have access to high-quality mathematics programming throughout Georgia.

## TOPIC:

# THE NEW MATH STANDARDS

## AND YOU!

FOR MORE INFORMATION, CONTACT:

SHEFFIELD.DACIA.L@MUSCOGEE.K12.GA.US -OR-  
BARBER.CAROLYN.A@MUSCOGEE.K12.GA.US

FEBRUARY 22, 2023A

CSU'S FRANK BROWN  
HALLA

5:30A - 8:30PM ET

SCAN HERE TO REGISTER!



WE NEED PRESENTERS!

SCAN HERE TO SUBMIT A PROPOSAL!





Click here to read more about our website:

[Columbus Regional  
Mathematics Collaborative  
Columbus State University](#)

Click the icons below to follow us on social media!



Columbus Regional Mathematics Collaborative  
Frank Brown Hall  
1127 Broadway  
Columbus, Georgia 31901

Mailing Address:  
4225 University Avenue  
Columbus, Georgia 31907