



INSTITUTE FOR THE PROFESSIONAL
DEVELOPMENT OF ADULT EDUCATORS

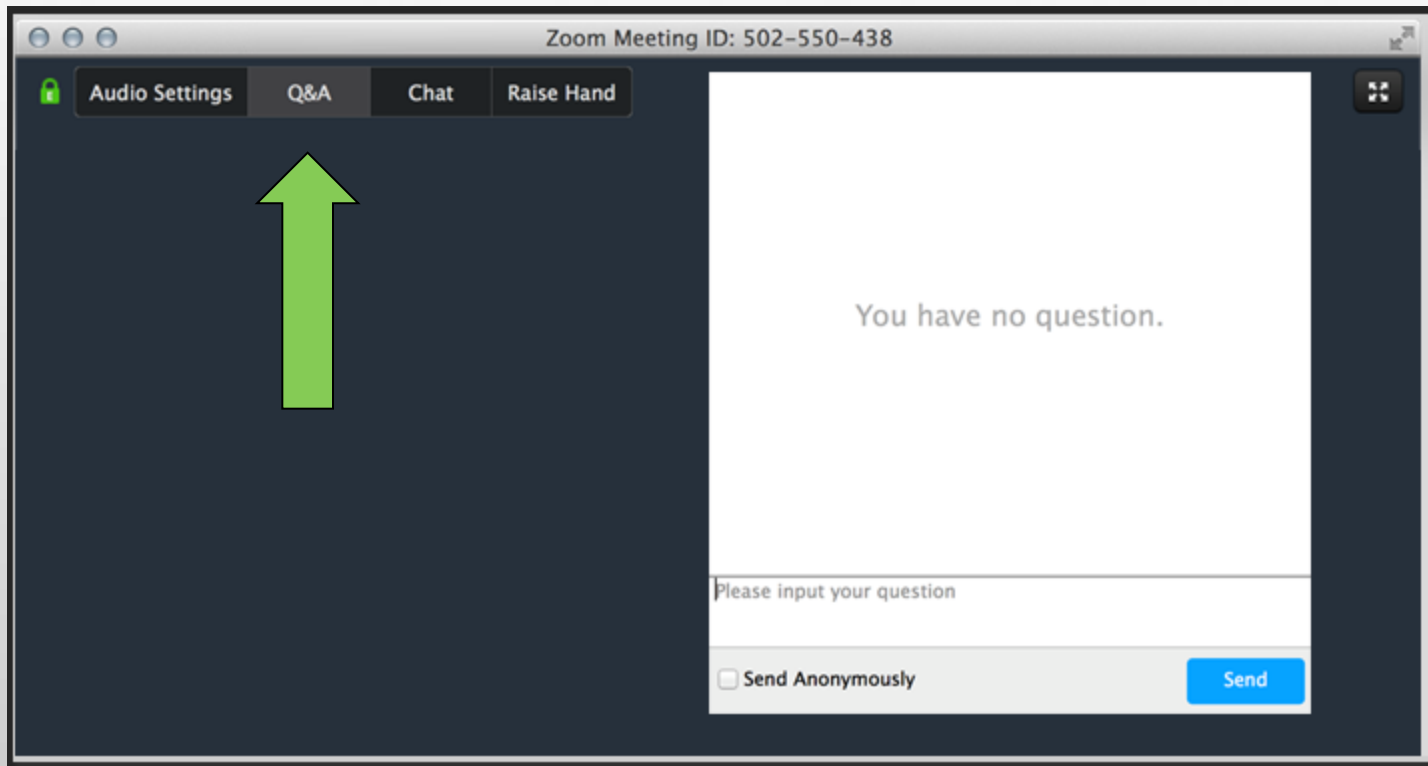
When Will I Ever Use This?

Connecting Math to Life Beyond
the Classroom

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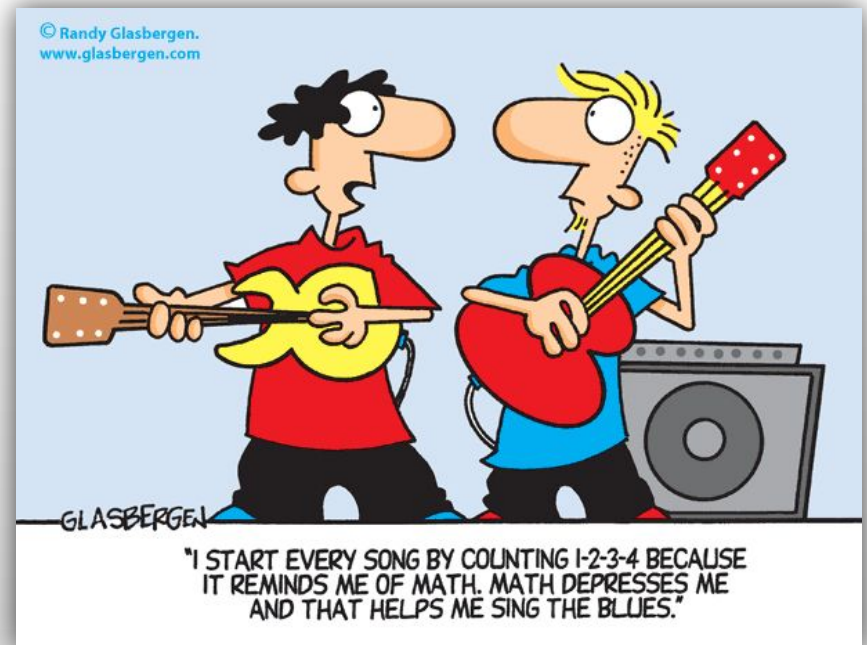
This training event is supported with federal funds as appropriated to the Florida Department of Education, Division of Career and Adult Education for the provision of state leadership professional development activities.

- If you have question, please type it into the **Q&A** option.



- Attendee microphones will be muted. You will be in **listen only** mode.
- Today's presentation is being **recorded** and it will be archived and available on the IPDAE website within 48 hours.

Why do I have to learn this?
When will I ever use this?
I'm not good at math.
I can't do math.
I don't like math.



Adult Education teachers have to overcome many obstacles; today we tackle one.

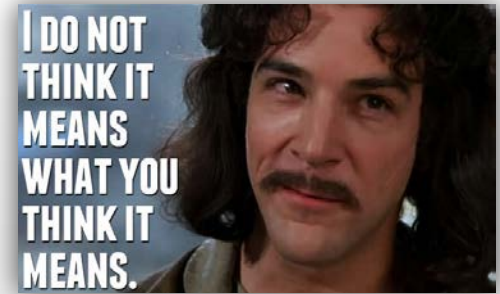
In this webinar, we will discuss a variety of practical applications designed to connect math to your students' world beyond the math classroom.

Math instructors need to work to connect the language of math to the language of the everyday world that students operate in.

In other words, do the students know what the word actually means, or is it just a proper name for something they have never encountered?

Here's a "non-mathy" example: Many students have heard of the Chevy Impala. These students, however, do not know what an impala actually is. To them, it is just a name of a car; the car could be named Joe or Sue. But, if you tell them that an impala is a fast deer-like animal, then they make the connection that the car is meant to go fast.

This same connection can be made with the language of math.



What do the words we use in math class mean outside of math class?

Acute/Obtuse:

acute=sharp pain

obtuse=slow to understand, dim-witted, not sharp

Percent: break the word into two parts, where else do we use “per” and “cent”?

A Quarter, $\frac{1}{4}$, 0.25, 25%:

Let's talk \$\$!

What do we call a 25 cent coin?



Construction: geometry, measurement

- use Pythagorean theorem to determine if something is square
- discuss pitch and its relationship to slope on the coordinate grid
- use a tape measure, convert between units, metric v. English
- perimeter, area, volume, surface area

Cooking: following directions, fractions

- growing a recipe for larger serving sizes

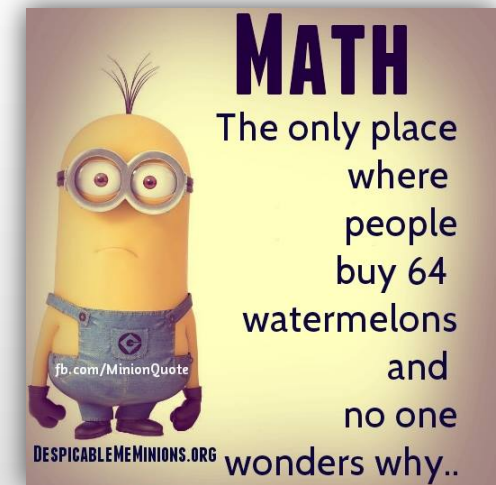
Healthcare: IV fluids...what's a cc?

- volume: cubic centimeter



Personal Finances

1. Credit Cards & Pay Day Loans:
the evils of interest!
2. Tipping: figuring simple percent
3. Shopping: simple percent and subtraction for
discounts, unit price comparison
4. Daily, Weekly, and Monthly Budgeting
5. Understanding utility bills and figuring the actual
cost per kilowatt hour.
6. Work problems with real world numbers from
students' lives instead of generic
problems from the book.



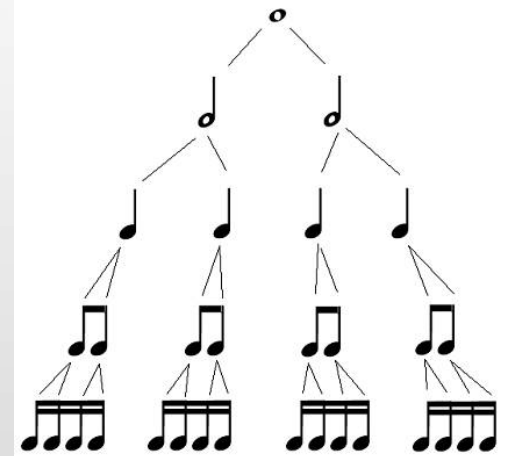
Adult Education teachers need to be ready to make connections between math lessons and real world scenarios that are student specific.

Horse people: Why is a quarter horse called a quarter horse?

Skateboarders/Surfers: Where did the name quarter pipe or half pipe come from?

Baseball/Basketball: Explain what batting averages mean and how they are calculated? Explain shooting percentages; discuss free throws specifically.

Music/Rhythm: whole notes, quarter notes, eighth notes, sixteenth notes



A Couple of Options

1. Hire teachers with a widely varied career or series of degrees. These teachers will naturally make connections between their various disciplines of study, careers, hobbies, etc.
2. Challenge teachers to teach outside of their comfort zone. Have your math teacher teach English and your English teacher teach math. Don't always go to the "math person" in the lab to help students with math problems.



Trend in Adult Education is towards contextualized and integrated Workforce Preparation and Training while students still working on ABE/GED skills.

FICAPS (Florida Integrated Career and Academic Preparation System):

- Based on Seattle's IBEST (Integrated Basic Educations and Strategic Training) model.
- Upshot: Adult Education and Career & Technical Instructors Teaching Together

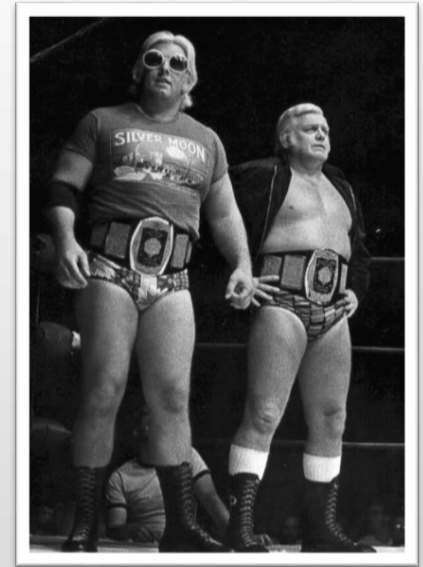


- Before partnering with groups outside of your Adult Education program begin by team-teaching within your program.
- Team-teaching can scare many teachers and administrators with the fear of additional prep-time for teachers, but this doesn't need to be the case.
- Instead practice "Tag-Team Teaching"

A pair of wrestlers who fight as a team, taking the ring alternately. One team member cannot enter the ring until touched or tagged by the one leaving.

A pair of people working together.

As teachers we wrestle with students and knowledge daily. Don't hesitate to tag-in some assistance!



A working tag-team teaching relationship develops from time together in the classroom.

The way in which each team works together will be different. And, as such, shouldn't be strictly defined, but left open to develop naturally.

Additional time spent together outside of the classroom and off-campus can increase team connection more quickly.

Embrace individual teacher strengths when tag-team teaching.

In addition to providing the students with a variety of perspectives on a particular topic, tag-team teaching provides a positive example of adults working together.



Adult Education teachers need to be ready to use their own unique knowledge base to make additional connections between math class and the real world.

Tag-team teaching can lead to greater depth of understanding for students in the math classroom and beyond.

What other connections can you think of?

How do you use math in your life?

Do you use math in any hobbies?

Where do you see common math mistakes in life?

