

Three Tiered Teaching

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@askmrsmartinez #zeroSD17

Zeroing In on Intermediate Algebra/Integrated Math III: A
Problem Solving Symposium

August 11, 2017
Kearny High School

PPT: <https://goo.gl/v48jFJ>

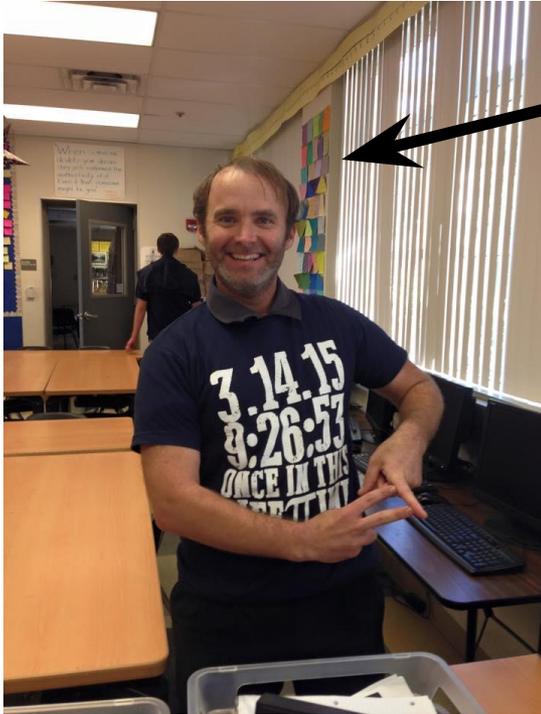


Scenario:

“It’s the 2nd week of school and you’ve given an assessment to gauge student strengths and weaknesses. The results are in. Data shows students have weaknesses in varied topics. You want to move on, but also want to shore up problem areas you’ve identified.”

What would you do?

Summer of 2012



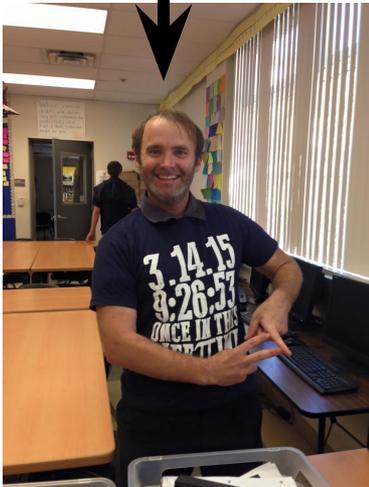
Shea Phillips

Fellow Noyce-
Preuss Teacher
Co-conspirator
Pi day Enthusiast

How can we adapt the powerful idea of “flipping” the classroom to meet a population of students who do not have access to technology at home?

How do we differentiate our teaching to meet the needs of ALL students?

Shea Phillips



TTT in a nutshell

What does it look like?

Warm-Up Activity or Guiding Question

Tier 1, 2, 3

Exit Slip or Discussion on Guiding Question

Daily Agenda	Title and/or Requirements	Score
Tier 1		
Tier 2		
Tier 3		
Homework		



Tier 1

Video Notes on rotations on coordinate plane.

Teacher leads short inquiry lesson that develops idea of interior angle sum of polygons.

Teacher leads three different workshops

Tier 2

4 – 10 practice problems with posted hints.

Team challenge – pairs vs. pairs attempt review problems against one another (timed station)

Socratic Quiz – Students answer spiral review questions in pairs and submit answers online.

Tier 3

Partners work with patty paper to translate and reflect different shapes. They record their findings in a reflection.

Problem solve to find interior and exterior angles. Checkpoint question is assessed and collected by teacher.

Paired project time

Tier Ideas



Prix Fixe Menu vs. Buffet



Three course plated meal:
Appetizer, Entrée, Dessert



Cornucopia of bite sized treats from
all genres on ONE table.

#RinseAndRepeat



- Three course plated meal:
Appetizer, Entrée, Dessert

=

Warmup
Notes
Classwork
Homework

#SeizeTheDay

- Learning in the “order” of student’s choice, not teachers.
- Forces the clock on student!
- Opportunities for every student to be the math HERO!
- Teacher = Facilitator = Obi-Wan
- Student = Math Warrior = Jedi
- Pre-Assessments leading to 4th Dimension.



Cornucopia of bite sized treats from all genres on ONE table.

Stuff that Kids say....

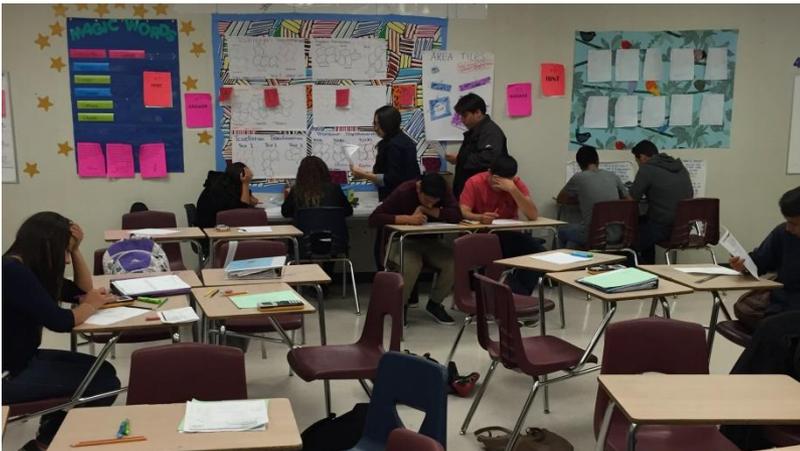
“What I liked about the Three Tiered Teaching is that we get to watch videos our teacher makes and **move around. Last year, I would have to ask to go to the bathroom just to relax and move my legs around. Sitting for an hour and a half really quenched up my muscles. Now i have a chance to move around and not miss anything important.”**

Stuff that Kids say....

“Out of all the math classes I've had in the past, and now having a Three Tiered Teaching, i like how we have the decision on how fast we can work. sometimes understand somethings better than others. **but i get to choose** how much time i want to dedicate to it. i also like how we can work with people we like, and its a tough choice too, because we have to choose wisely so we stay focused. i also like how **you have more time to answer our questions** because everyone is doing there own thing, and you have more free time.”

Doh! Learn from my mistakes.

- **Environment** matters. Make kids move!
- **Accountability.** Every station should have some sort of “product”
- **Feedback.** Hints, partial keys, steps, teacher check ins, timing reminders
- **Balance** procedure practice with critical thinking, application opportunities
- **Technology** is your friend, but not mandatory
- **Group size.** Once groups get to a station, keep size 2 – 5 students.



But will it work everywhere?

School Site	
Preuss School UCSD	Charter School, 15 computers in classroom, 90 minute blocks, Class size range 25 – 33, UCSD tutors occasionally.
Lincoln High School	Summer School, 6 weeks in computer lab, 4 hour day Mon – Fri., 20 students, 2 tutors.
San Ysidro High School	Traditional High School, no computers in the classroom, only 9 th graders have iPads, Wi-Fi is stupid, 2 hour block schedule, class size range from 23 – 41, no additional staff.

Questions/Comments

THE FORCE
Growth Mindset
Intelligence can be developed

Leads to a desire to learn and therefore a tendency to ...

If you hold a Growth Mindset, you believe that intelligence can be developed, that the brain can be grown and strengthened, like a muscle that can be trained. This leads to your desire to improve.

- ... **embrace challenges**
And how do you improve?
First you embrace challenges because you know you'll come out stronger on the other side.
- ... **persist in the face of setbacks**
Similarly, obstacles or external setbacks do not discourage you. Your self-image is not tied to your success or how you will look to others. Failure is an opportunity to learn and so, whatever happens, you will win.
- ... **see effort as the path to mastery**
As a Growth Mindset individual, you see effort as necessary to grow and master useful skills and knowledge; you do not view effort as something useless or to be avoided. You are not turned away by fears that you might make an attempt, or even work hard, and that failure is possible.
- ... **learn from criticism**
Criticism and negative feedback are sources of information. That doesn't mean that all criticism is worth integrating or that nothing is ever to be taken personally. As a Growth Mindset individual, you know that you can continue change and improve, so negative feedback is not perceived as being directly about you as a person but rather about the current state of your abilities.
- ... **find lessons and inspiration in the success of others**
You see the success of others as sources of inspiration, information opportunities to learn. Growth mindset individuals do not view success as a competitive, zero-sum game with others.

As a result, you reach ever-higher levels of achievement. → All this gives you a greater sense of free will.

As a Growth Mindset individual, you note your improvements and this creates positive feedback loops that encourage you to continue learning and improving. Most people do not have a 100% Growth Mindset or a 100% Fixed Mindset; most of us have some of both. The good news is that it is possible to change your worldview from Fixed Mindset to Growth Mindset. Carol Dweck's research indicates that both children and adults can be taught to change their mindsets.

GRAPHIC BY MIHEL HOJAKS

Want to know more?

<http://mrsmartinezsportfolio.weebly.com/>

“The first week was pretty much a car on fire, on a train being pulled by a donkey that didn't want to walk”

- Me August 2012

Try something new once or twice, or for a whole chapter! Sit back and enjoy the ride, as your students take the wheel of their own learning! 😊

Folder with ppt and 4th Dimension: <https://goo.gl/62DmbF>