Engaging Instruction

in a

Scripted Math Classroom

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Math Instruction and the Scripted Math Curriculum

- Benefits
- Challenges
- Goal of all Math Classrooms in Louisiana:

Mastery of Math Standards
Brain Based Research on Learning
Four Brain Chemicals
Serotonin
Dopamine
Cortisol
Norepinephrine
Mastery of Standards → Technology → Communication with Peers → Active Learning → Music → FUN!!
Goals

Why

How

Results

Mastery of Standards

Technology

Communication with Peers

Music

Active Learning

FUN!!
Goals

Why

How

Results

Mastery of Standards

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Active Learning

Music

FUN!!
Goals → Why → How → Results

- Technology
- Mastery of Standards
- Communication with Peers
- Active Learning
- Music
- FUN!!
Music!!!
Exposure to music can **improve learning** and **increase positive classroom atmosphere**! Eerola 2013, Foran 2009

During developmental stages, active engagement with music can impact the way that the brain can process information, enhancing the perception of language and speech, and subsequently **improving our ability to communicate with others and learn to read** (Hallam, 2010).

Several studies on the effects of experiencing calm music have suggested that it can **reduce aggressive behavior and regulate moods, particularly feelings of anxiety and stress** (Ziv & Dolev, 2013; Goldbeck & Ellerkamp, 2012; Saarikallio & Erkkila, 2007).

When students are able to **manage their emotions in more positive ways**, students are able to enhance their learning potential (Foran, 2009).
Benefits of Music in the Math Classroom
Research:
Songs/Movement Chants
Alexa - Amazon Echo
Microphones

**Music** is a natural drug! Although our brains process sound in the auditory cortex, it has been proven that **music** activates areas of the brain that are also associated with **memory**, emotions, and motor planning. When your brain listens to **music**, **dopamine** is released.
Goals

Why

How

Results

Mastery of Standards

Technology

Communication with Peers

Active Learning

Music

FUN!!
Any kind of novelty or excitement drives up dopamine in the brain, and dopamine is associated with romantic love.

— Helen Fisher —
CELEBRATE NATIONAL GRILLED CHEESE DAY
YOU HAVE THE POWER TO ROCK THE LEAP!
Data = EPIC.

“Most of the world will make decisions by either guessing or using their gut. They will be either lucky or wrong.”

Suhail Doshi, CEO, Mixpanel
CCSS.MA.5.5.NF.4: Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

CCSS.MA.5.5.NF.4.a: Interpret the product \((a/b) \times q\) as a parts of a partition of \(q\) into \(b\) equal parts; equivalently, as the result of a sequence of operations \(a \times q / b\).

CCSS.MA.5.5.NF.4.b: Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the

Percent Correct and Item Count for CCSS.MA.5.5.NF.4:

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<th>Assessment Title</th>
<th>Item Count</th>
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Percent Correct and Item Count for CCSS.MA.5.5.NF.4.a:

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Percent Correct and Item Count for CCSS.MA.5.5.NF.4.b:

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“Collaboration allows teachers to capture each other’s fund of collective intelligence.”

— Mike Schmoker, Results
Many teachers think about engagement as an activity (e.g. “What’s the activity my students are doing next?”). Engagement is typically what people see, hear and feel in the room.

Some of the best engagement is actually invisible.

- Eric Jensen in Education Week Teacher
I'm not telling you it's going to be easy, I'm telling you it's going to be WORTH IT.
IF YOUR AUDIENCE ISN'T LISTENING, IT'S NOT THEIR FAULT. IT'S YOURS.

SETH GODIN
YOU DON’T NEED A CAPE TO BE A HERO. YOU JUST NEED TO CARE.

Doing nothing is a great way to change nothing.
“Provide an uncommon experience for your students and they will reward you with an uncommon effort and attitude.”

Dave Burgess
Teach Like a Pirate
"That was an awesome worksheet,"
said no student ever.
“You can't effectively teach anything to students who are asleep.”
— Mike Kowis, Engaging College

90% of students feel like they are supposed to sit still and listen all day each day.

BE THE TEACHER OR PRINCIPAL THAT CHANGES THIS FOR YOUR STUDENTS!
Every kid gets everything they need. Period.
Looking for inspiration??

Twitter:
@Steelethoughts
@hopekingteach
@ronclark
@adamdovico
@casas_jimmy
@burgessdave

Books:
Teach Like A Pirate- Dave Burgess
Teaching with Poverty in Mind
Mathematical Mindset
Wild Card
Culturize
ANYTHING Ron Clark
Kids Deserve It
The Limitless School
Stories From Webb
Teach Like a Champion
Be The One For Kids

#setthestatetoengage
#kidsdeserveit