



THE GRID METHOD

Mastery Learning System

Reaching ALL Students with Mastery Learning

Presented by: Chad Ostrowski, M.S. Ed. I @thegridmethod



Let me introduce myself...



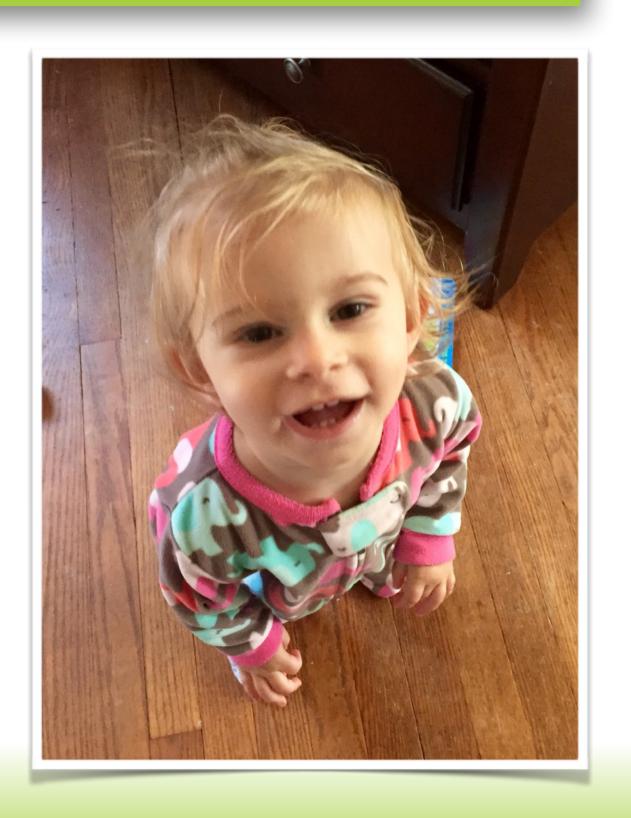
- M.S. Secondary Education, U of Akron
- Woodrow Wilson Teaching Fellow
- Experienced Teacher (M.S. Science)
- High Needs / Urban District
- Former District Co-Chair 6-8 Science Curriculum
- Author & Educational Speaker / Blogger
- Creator of The Grid Method

Chad Ostrowski, M.S. Ed.

Educator and Creator of "The Grid Method"
CEO / Founder - Progressive Mastery Learning, LLC

Emily...Learning to walk:





Objectives:



- 1. Define and Explain *The Grid Method Mastery Learning* System and its components.
- 2. Explain The Benefits of mastery learning in the classroom.

Agenda:



- 1. Introduction "Why I changed my Instruction"
- 2. Define "The Grid Method" System and how a grid is developed from standards.
- 3. Explain benefits of Mastery learning and share classroom examples.
- 4. Questions

Question...



How many of your students does a traditional lesson or activity in your classroom generally reach?

- a.) I'm not sure
- b.) Some of them
- c.) Most of them
- d.) All of them

Why Change?



The Problems

Lack of ownership in learning

Failure to reach "ALL" learners

Management Issues

Low student performance

I was merely "surviving"

The Solutions

Hold learners accountable

Make content more targeted & accessible

Let learners set pace

Maintain high expectations through mastery based system

Evolve and adapt to "thrive"

Mastery Learning



Learner paced content delivery

High Accountability: 85% competency required

Targeted Instruction connected to standards

Clear, standards based learning targets

I needed a way to organize it all...

...The Grid Method



Learners work through a "grid" with scaffolded assignments aligned with tiered standards based learning targets increasing in complexity and Depth of Knowledge.

They access the content and activities (Learning Opportunities) at their own pace.

Move on only after 85% competency is shown on a given LO.

Formative assessment data gathered on EVERY LO.

Individualized Intervention and Differentiation as needed

Looking at the Grid



Tiered Targets Based on Webb's DOK

Level 5 (Ind. Exploration) ————

Level 4 (Extended Thinking) ———

Level 3 (Strategic Thinking) ————

Level 2 (Skill / Concepts) ————

Level 1 (Recall) ———

Name:	CO	RE:			Star	t Date:	
CYCLI STANDARD FOCUS: The relative patter moon. VOCABULARY TERMS: Orbit, Revolution, Waxing Gibbous, Waxing Crescent, Waning	rns of motion and position	ons of the	Earth, moon and	d sun		eclipses, tides and	•
LEVEL 5: Predict & Infer TARGET: I CAN: predict and infer what the affects and ramifications would be if the moon was destroyed or its' orbit or pattern changed or stopped, citing accurate evidence and support for predictions.	E&M 5A: Create and produce a movie trailer for a movie that would showcase what wou the earth or was destroyed. What would the impact be on the oceans, wildlife, peoplee depth knowledge of other ways the moon affects our planet. Another option may be chosen by student if they have another creative idea or way to de its interactions with our planet.				ans, wildlife, peopleetc. This	will require some ext	tra research and in
LEVEL 4: Construct & Design TARGET: I CAN Construct and design a model or demonstration (physical or digital) of how the moon's position compared to earth creates phenomenon of phases, eclipses, and tides.	E&M-4A: Create a children's story / explanation about the moon and its cycles, phases, and tides. For this task, you must fully understand the processes we have discussed (Moon position, phases, tides, eclipses) in order to explain them in simple terms to a child through writing and creating a story. The story should be original but can be adapted from already created stories. If you would like to complete another task (e.g. comic strip, video, movie etc.) please ask your coach. NEED: All previous assignments / Learning Targets Mastered ASSESSMENT: Product created, Graded based on rubric.						
LEVEL 3: Compare & Contrast TARGET: Compare and contrast the patterns of the moon's position and phases with its visual appearance, eclipses and tides.	E&M-3A: Phases Simulation Complete moon phase simulation activity using link on EDMODO. Need: Device, Edmodo, simulation activity sheet. ASSESSMENT: lab responses and student responses.		E&M 3B: Position Challenge Show full understanding of cycles and phases of moon as well as their affects on phenomenon of Tides and eclipses through completion of the Position challenge. Model each phenomenon accurately to show mastery. NEED: Position challenge sheet. ASSESSMENT: Student responses.			E&M 3C – SUMMATIVE ASSESSMENT Complete summative assessment. You will have 3 chances to complete this assessment SCORE: '85% Mastery must be achieved. If it is not achieved after 3 tries, additional review activities must be completed.	
LEVEL 2: Apply & Demonstrate. TARGET: I CAN apply and demonstrate knowledge of how the moon's change in position and phases around earth leads to high and low as well as NEAP and SPRING tides on earth due to its gravitational pull.	E&M-2A: Class Notes (Tides): Complete all notes on moon position and tides. Complete activity sheet and exit slip. NEED: Notes sheet, materials. ASSESSMENT: exit slip / notes		E&M-2B: (Class) Zaption Video Tides: Complete the zaption video and all required responses. Need: Device, video ASSESSMENT: student responses and end questions. RED: Tech Device ASSESSMENT: Quiz / Sheet		Complete the Tides Data activity. Be able to explain and demonstrate what causes the changes in the tides and why the time interval is the length it is. NEED: Tides data table and activity		
LEVEL 1: Define & Explain: TARGET: I CAN define and explain how the moon's change in position around earth leads to changes in its appearance (phases) as well as LUNAR and SOLAR eclipses. + Define all Vocabulary	E&M -1A: Class Notes (Phases and Eclipses) Complete all notes and activities from lesson. NEED: Device, Nearpod APP, Notes sheet. ASSESSMENT: Formative responses and exit quiz from notes.	Review Sign into y Account ai Earth and Complete take "TES" SCORE: _ + KIM She mastered. NEED: Te www.quizl ASSESSN	eets if not ch Device,	Con han NEE Actir	M 1C: Moon Phases uiry Lab plete inquiry lab using douts and directions. ED: Lamp, Ping pong Balls, vity SESSMENT: Student conses, lab sheet answers, icipation.	E&M: 1D: Brain POP Complete activity from brain pop using the video and worksheet. Complete quiz at end of the video and send to grademecoach@ gmail.com. SCORE:/10 NEED: tech, worksheet	PROVE MASTERY Successful completion of socrative Earth and Moon Level 1 quiz to show knowledge. 85% passing TEACHER CHECK: Create an Action Plan if you do not pass.

Created By: Chad Ostrowski, STEAMM Academy @ Hartford, Canton City School District @ 20

Looking at the Grid



Name:	CORE:			Start Date:			
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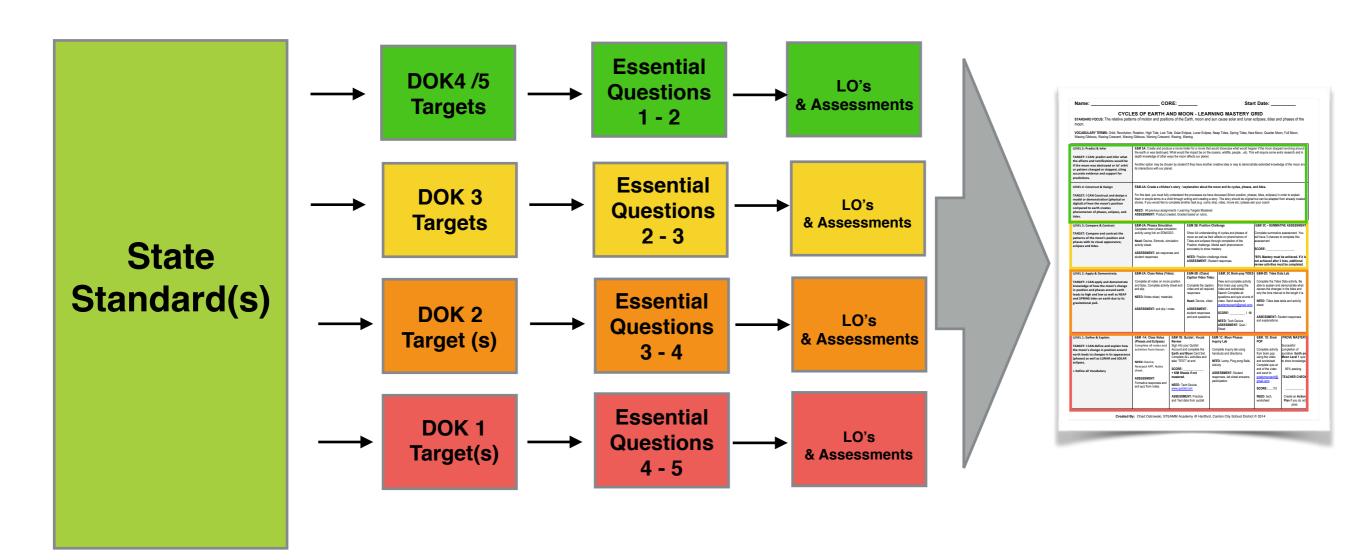
Scaffolded Learning Opportunities

Aligned to Tiered Targets

Develop higher complexity from L to R

Creating A Mastery Grid





Formative Assessment



Assess after EVERY Learning Opportunity

Maintain expectation of 80% or higher in competency

Targeted, Purposeful Feedback & Intervention

Multiple Attempts = F.A.I.L (First Attempt In Learning)

Integrate Technology when possible

Differentiate based on need

Summative Assessment



Project Based

Problem Based

Traditional Assessments (Tiered)

Performance Based

What's it look like?



Learners write goals daily to focus

Learners being assessed constantly

Learners working on different tasks

Peer to peer instruction

Every student working where they are at

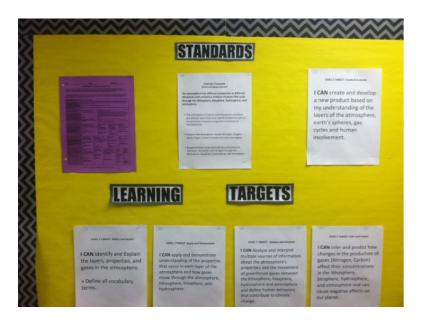
What's it look like?

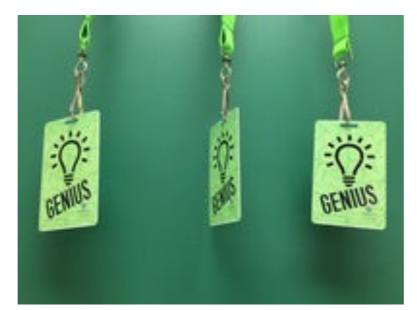








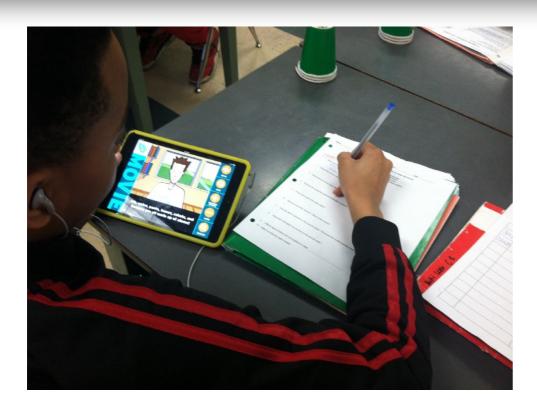


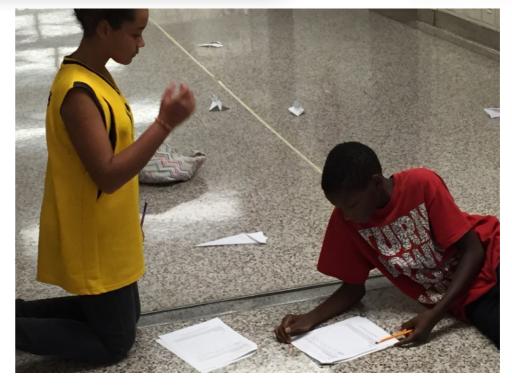




What's it look like?











Does it work? / Research

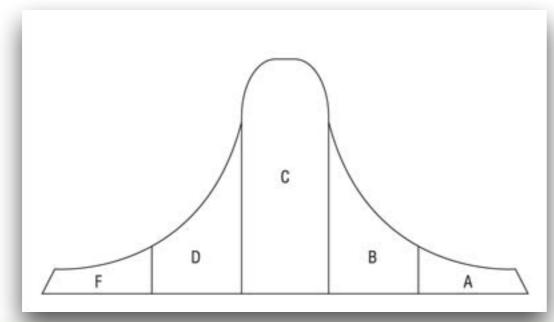


"Careful and systematic application of mastery learning principles can lead to significant improvements in student learning."

(Kim et al., 1969, 1970; Wu, 1994), (Chan, 1981), (Dyke, 1988; Langeheine, 1992; Mevarech, 1985, 1986; Postlethwaite & Haggarty, 1998; Reezigt & Weide, 1990, 1992; Yildiran, 2006), (Cabezon, 1984), (Anderson, 1994; Block, Efthim, & Burns, 1989; Guskey & Pigott, 1988; Walberg, 1984, 1988)

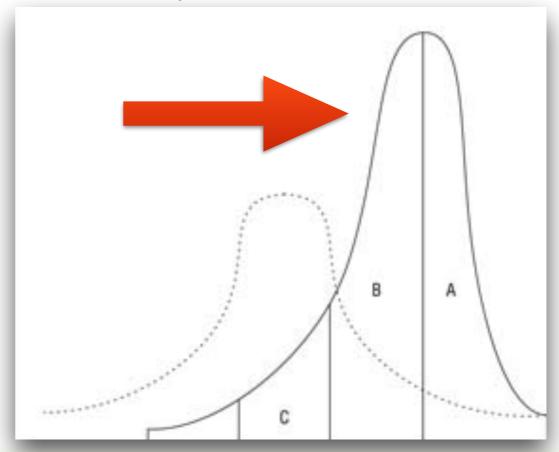
Source: http://www.education.com/reference/article/mastery-learning/

Traditional Classroom



Images from: GCC Information Services

Mastery Based Classroom



Does it work? / Breaking The Curve



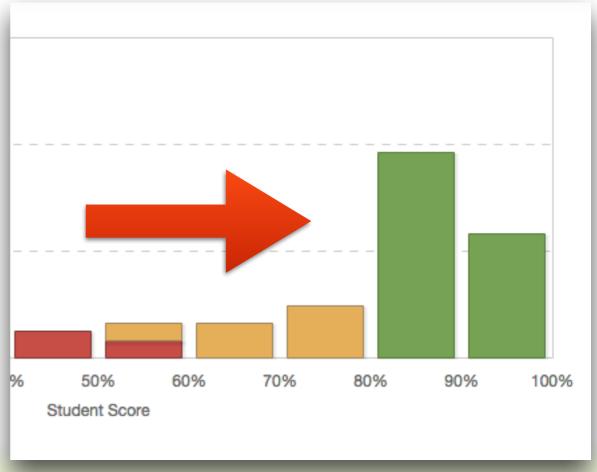
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Source: http://www.education.com/reference/article/mastery-learning/

Traditional Classroom Traditional Classroom % 50% 60% 70% 80% 90% 100% Student Score

Mastery Based Classroom



Scores comparing unit results from two separate years (2013 v 2014) from the same instructor.

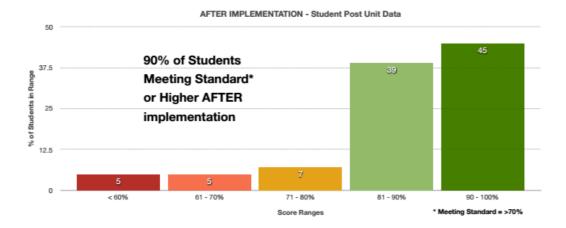
Pilot Data Collected.



7th Grade Science - The Grid Method - Pilot Classroom Results: This data was collected form a 7th grade Science classroom. The data was taken from the post data collected after implementing The Grid Method to teach an Earth and Moon unit. The data shows a year to year comparison. The first year being without the system implementation. The Second year being after The Grid Method has been implemented. The two population while different had the same instructor, same content, same lessons, and same assessment given. The class that pilloted the system consisted of 83 students. The class that did not implement the system Included 72 students. The district is classified as "High Needs" Urban, and 100% of students are eligible for free and reduced lunch.

AFTER IMPLEMENTATION (2015)

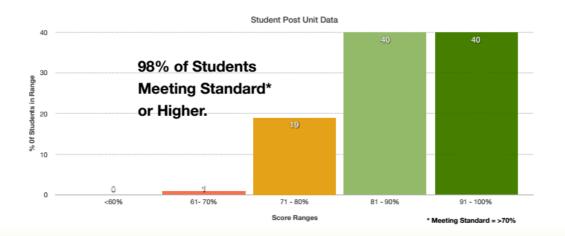
STUDENT SCORES	% AFTER IMPLEMENTATION
< 60%	5
61 - 70%	5
71 - 80%	7
81 - 90%	39
90 - 100%	45



HS Algebra - The Grid Method - Pilot Classroom Results: This data was collected form a High School Algebra classroom. The data was taken from the post data collected after implementing The Grid Method for the duration of the unit in which the data was taken from. The class that piloted the system consisted of 92 students. The district is classified as "High Needs" Rural, and 50% of students are eligible for free and reduced lunch

Student Post Unit Results

STUDENT SCORES	% OF STUDENTS AT LEVEL
<60%	0
61-70%	1
71 - 80%	19
81 - 90%	40
91 - 100%	40



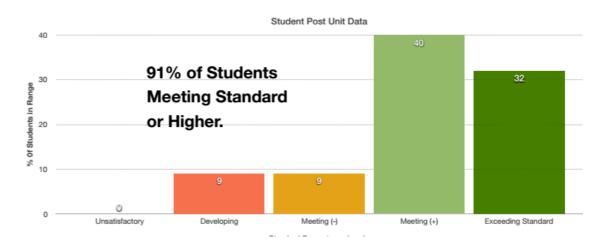
ELA - The Grid Method - Pilot Classroom Results:

This data was collected form a 6th grade ELA classroom. The data was taken from the post data collected after implementing The Grid Method to teach a figurative language unit. The class that piloted the system consisted of 22 students. The district is classified as "High Needs" Urban, and 100% of students are eligible for free and reduced lunch based on low socioeconomi status. Note: this classroom uses a Standards based grading system and does not use the traditional % based alphabetical grading scale.



Student Post Unit Results

STUDENT COMPETENCY	% OF STUDENTS AT LEVEL
Unsatisfactory	0
Developing	9
Meeting (-)	9
Meeting (+)	40
Exceeding Standard	32



- Increased Achievement
- Rightward Shift
- Multiple Content areas / Grade levels

Inclusive of Best Practices





One Solution.



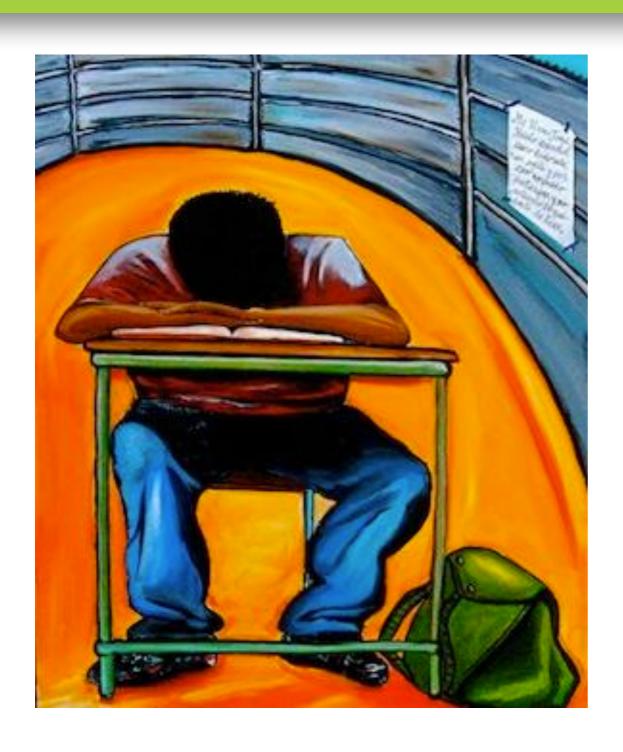


THE GRID METHOD

Mastery Learning System

Reaching the Unreachable

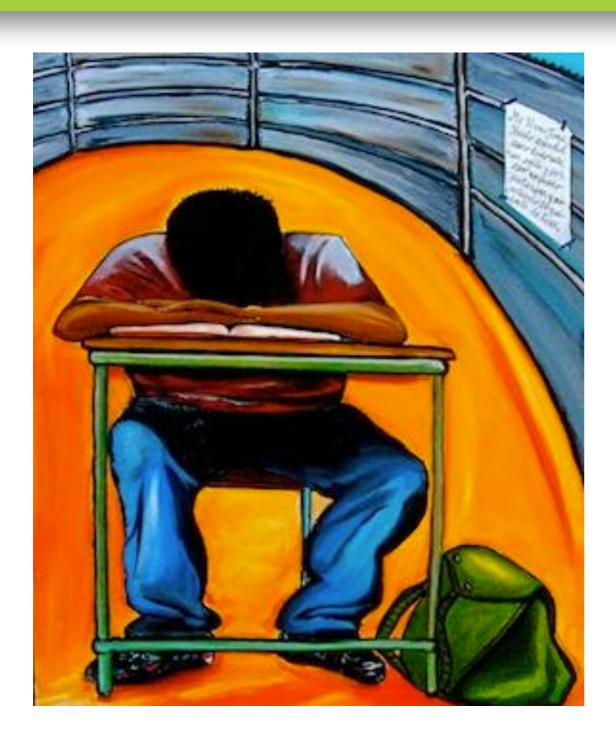




Jesse

What if?

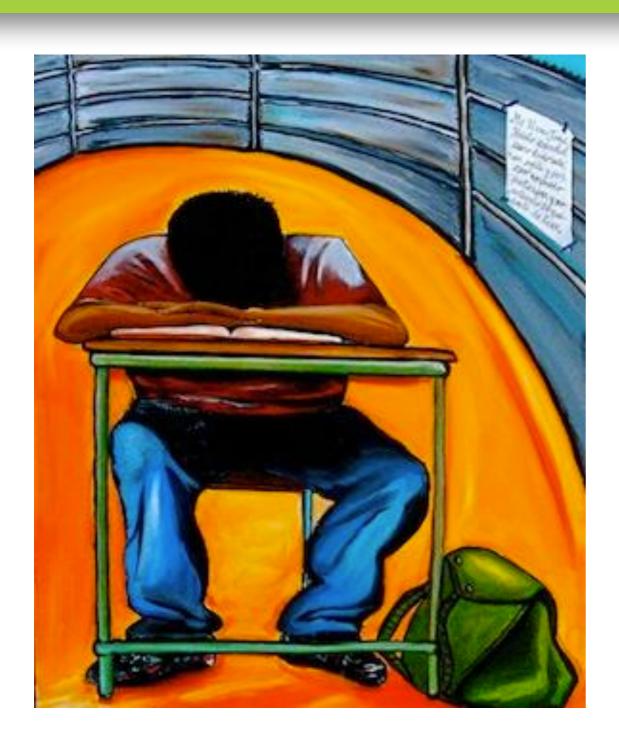




Who's your Jesse?

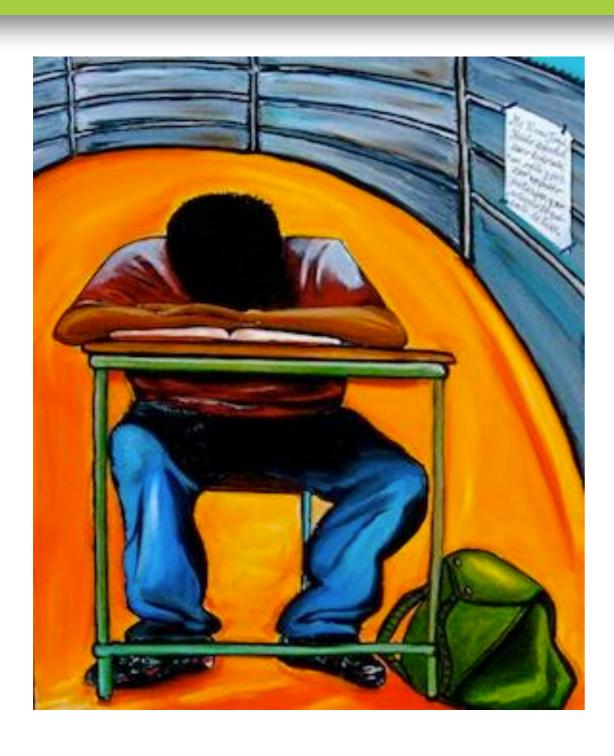
What if?





What if?





EVERYONE

You must be wondering...



Questions?

Visit: www.thegridmethod.com

e-mail: chad@thegridmethod.com

Thank You!



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- Resources and Materials Mentioned Today.
- FREE GRID TEMPLATES, MATERIALS, & RESOURCES

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