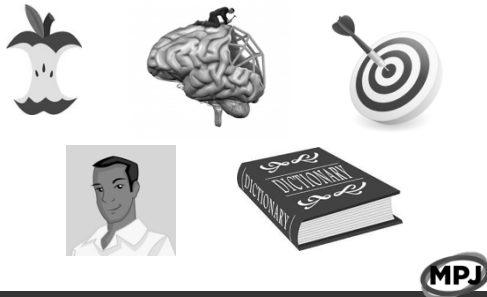


What Stuck from Yesterday?



What is an Acceptable Failure Rate?

15%?

25%?

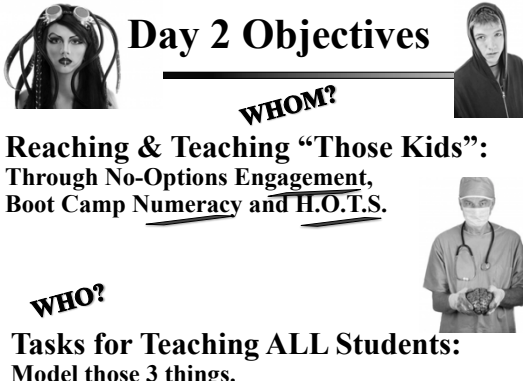
40%?

60%?



Why Do They Pass or Fail?





Day 2 Objectives

WHOM?

Reaching & Teaching “Those Kids”:
Through No-Options Engagement,
Boot Camp Numeracy and H.O.T.S.

WHO?

Tasks for Teaching ALL Students:
Model those 3 things.

When You Reach ‘em ...

Geometry: from 1st Progress to Semester Report Card (over 3 years)

12-15% » 0-9%

District Final improved over 3 years from 74% to 85% avg.

Algebra Essentials: 1st Progress to Semester Report Card (over 2 semesters)

33% » 9%

Remedial Math Class met the district average on Final Exam.

Algebra I At-Risk: from 8th Grade Math to Freshman Algebra

100% » 0%

Exceeded the district average on Final Exam.

Single Digit Failure Rates are Possible! MPJ

The Paradigm Shift

“Students are
solely
responsible.”

➡

Coach’s Mind Set




Emotional Investment

MPJ

No-Options Engagement


The most loving thing you can do for your students is ...
Demand Their Best Effort


<p>No-Options (Make failure more painful than success)</p> <ul style="list-style-type: none"> • Slacker Alert • Entrance Ticket • Incomplete Policy • Student Conference • Intervention • HW Camp/Board-listed 	<p>Engage (No Quiet Deals)</p> <ul style="list-style-type: none"> • Interesting Lessons • Walk-abouts • Call Outs • Whiteboards • Exit Ticket • Pair/Share
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No-Options Engagement


<p>❖ <u>No-Options Strategies</u></p> <ul style="list-style-type: none"> • Ticket out the door • Non-stop harassment • HW Detention • Phone Calls/Email • Supplemental Assignments 	<p>❖ <u>Engagement Strategies</u></p> <ul style="list-style-type: none"> • I do/we do/you do • Chunking • Stand & Point • Use Student Response • Wait for 100% involvement • Thumb/Finger Votes • Sticky Note Terror • Participation Paraphernalia (Beads, Raffle Tickets, Initials, Deck of Cards, Seating Chart Dots, Equity Sticks)
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Boot Camp

Refresh, Refine & Accelerate ...
pre-requisite skills ...
before each lesson, week or unit.



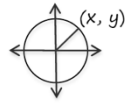
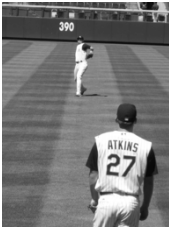




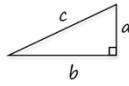


Fundamentals are Key ...

... and need to be practiced regularly!



$$x^2 + y^2 = r^2$$



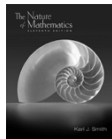
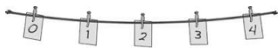
$$a^2 + b^2 = c^2$$

Warm-Ups

Refresh



Boot Camp Resources



Refine



Boot Camp Intervention

Case Study:

Algebra Team Pre-Assessed w/
Textbook Resources: 15% Failed

3-Day, 20-Min Intervention, then
Post Test: 85% of those Passed

Acceleration
—Extra Work

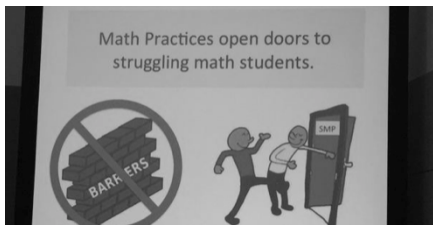
Double Up?



What are your pre-req's?



H.O.T.S. Are For All Kids!



Amy Lucenta & Grace Kelemanik of the Boston Plan for Excellence,
NCTM Boston, 2015



Explicit Teaching of H.O.T.S.



Dr. Peg Smith

“It’s all about the task.
It’s all about the task.
It’s all about the task.”



Fail Grandly Task Resources No Real Risk



But Did They Learn Any More?

Work ► Learn ► Earn

Work ► ► ► ► ► Earn

External Data

6% of Geometry Total failed state test (2% failed course)

98% of SL Studies Seniors passed IB Exam

3rd of all Algebra 1 Classes on the final exam.



Teacher Action is the Difference



Teachers matter most.

-- Dr. William Schmidt, University of Michigan



Teachers matter most.

-- Peg Smith, University of Pittsburgh



Teachers matter most.

-- Tim Kanold, Adlai E. Stevenson HS, Chicago

Poverty matters ... a lot.

-- Dr. Uri Treisman, University of Texas, Austin

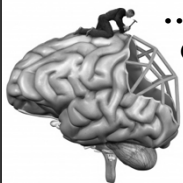


Teachers matter most.

-- David Foster, Silicon Valley Math Initiative, CA



Reach 'Em & Teach 'Em in ...



...with the faith that they
can learn it,

and that we can teach
it to them,

because what we do matters

the most.

www.mathprojects.com