



PD Model towards UMathX Teacher Certification - TEKS

# Growth Mindsets with Built-In Differentiation – UMathX in Grades 6 to Alg1 Mathematics

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## Description:

- We will provide “go deep” learning tools to grapple with gr 6 to Alg1 Mathematics.
- Grappling is productive struggling. BYOD for “smarter, not harder” online lessons.
- The presenter will model whole-class learning with build-in differentiation.

## Model of a “Growth Mindset” ... “TEACH” vs “TELL”

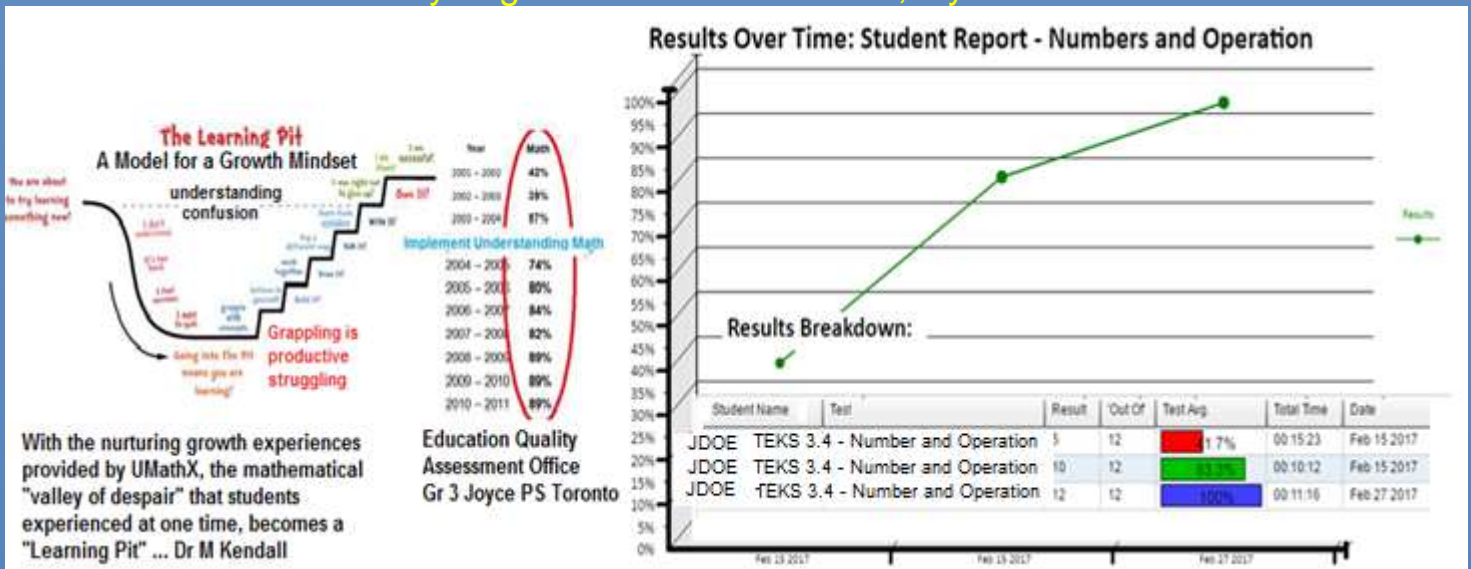
See 10 minute video ... <http://www.jamesnottingham.co.uk/learning-pit/>

Followup ... A Thought Provoking Video about Provoking Thought!

... “EUREKA” is “I FOUND IT!”. You want to SHARE – TALK - REPEAT

... “EUREKA” does NOT mean “My teacher showed me” (I memorized)

... Do you get a sense of EUREKA, if you have not first GRAPPLED?



## Introduction to the UMathX Learning Environment

Step 1: see [www.UMathX.com](http://www.UMathX.com)

Play .. UMathX – What is it? – The Learning Pit

Play .. UMathX – Navigation / Frameworks / Assessment / Data

Step 2: log in [www.UMathX.com/texas](http://www.UMathX.com/texas)

generic login: neufeld

generic password: umathx

## Sample Lessons (UMathX Scaffolded Menu & Curriculum Menu)

Fractions>Multiplying Fractions>Pattern Blocks>Develop the Rule>Ex 3 // 6.3.B.i (tiered framework-proper x proper)

Measurement>Per&Area Polygons>Area Polygons>Polygons Broken into Shapes // 7.9.C (tiered frameworks)

Graphing>Reading & Sketching Graphs>Graphs without a Scale>Ex7-Glasses of Water // 6.6.C.i (tiered frameworks)

Graphing>Equation of Straight Line>Word Problems-Applications>The Walker // A.3.C / 8.4.B / 8.4.C.iii (tiered frameworks)

Graphing>Quadratic Functions>Maximize Cage Area>Trial & Error to Summary // A.8.B.i (tiered frameworks)

## Use Data to Redirect Learning Tests and Personal / Group Bookmarks