# High-impact transformations: Unleashing the full potential of Al

Derek D. Rouch, EdD Sequoia Al Conference February 29, 2024



#### **Your Ranger**

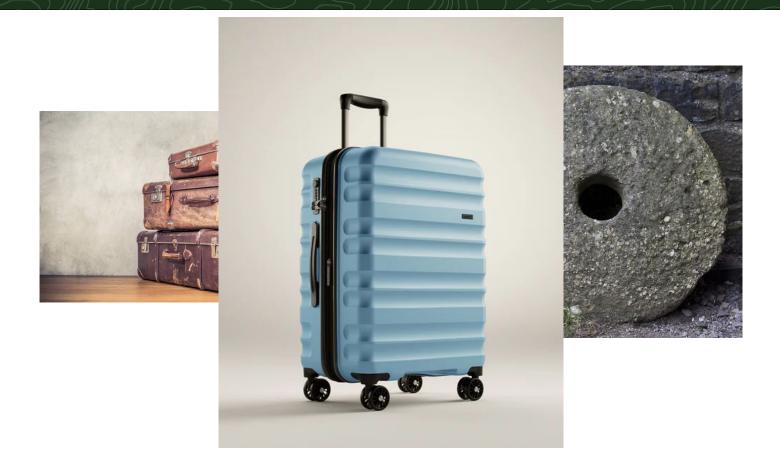


### **Derek Rouch, EdD**

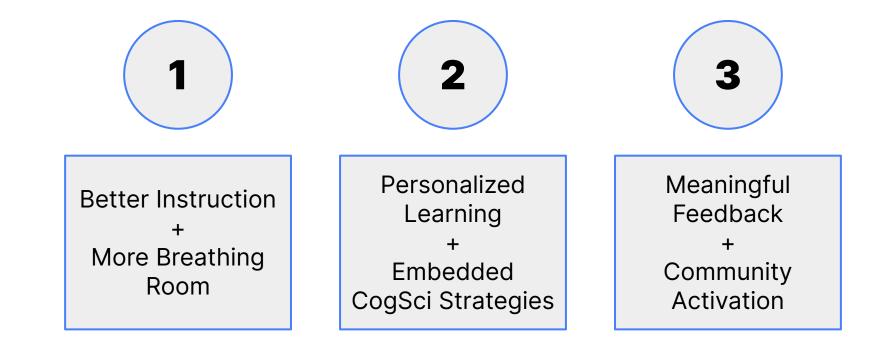
*Director of Technology* Nuview Union School District



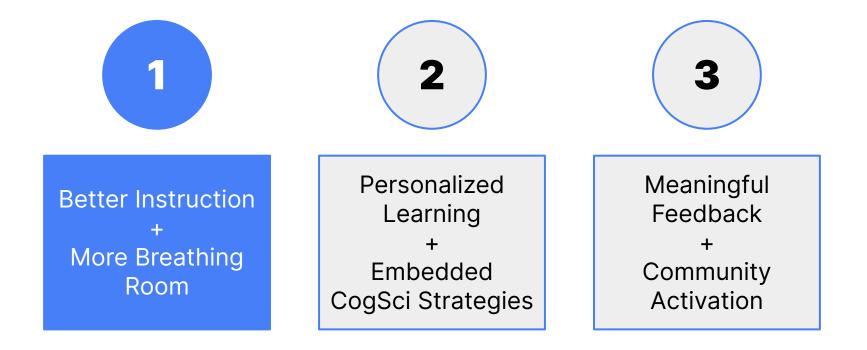
#### **Anatomy of a Transformation**



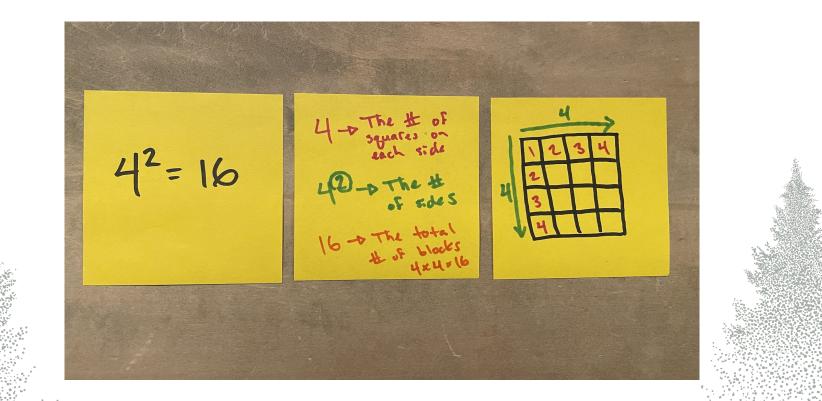
#### **Three Transformations Now Available**



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## **Sticky Math**



#### Literal months of work, completed in minutes

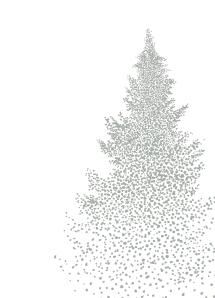


You

#### My colleague and I created "Sticky Math" a low-tech math teaching strategy in which students are presented with 3 sticky notes. Sticky Note 1 is a math concept or equation (e.g. $4^2 = 16$ ). Sticky Note 3 is a pictorial representation of that problem (e.g. a 4-by-4 square showing 16 square units). And Sticky Note 2 is blank, meant to allow space for the students to make mental connections between the two representations. For example, the 16 individual squares in the pictorial representation relate to the "16" in the equation, and the 4<sup>2</sup> relates to each side of the square in the pictorial representation having a side length of 4. If I provide a CSV of every secondary Common Core Math Standard, can you create 5 examples of "Sticky Math" activities for each?

#### What does this look like in other subjects?





#### **Breathing Room**

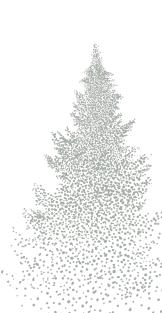
#### You

I have never led a guided meditation, but would like to try during a Keynote session I'm leading at a virtual Zoom conference for K-12 educators. Can you help create a script for a 60-second mindfulness meditation that I can use?

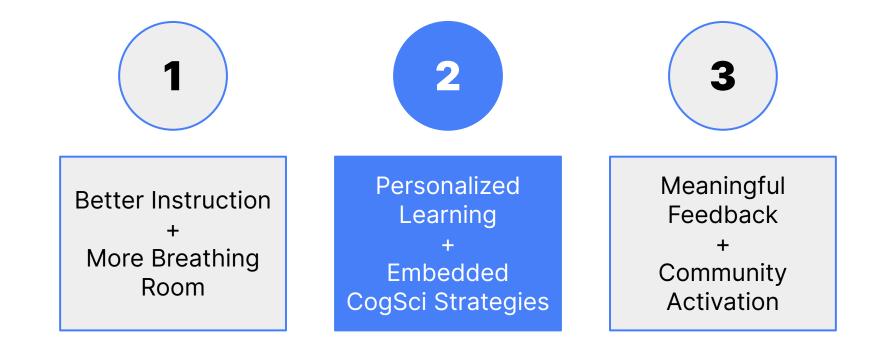
#### ChatGPT

Of course! Here's a simple 60-second mindfulness meditation script tailored for your audience of K-12 educators:

[Begin by inviting participants to find a comfortable seated position, either in their chairs or on the floor. Encourage them to relax their bodies and close their eyes if they feel comfortable doing so.]



#### **Three Transformations Now Available**



#### **Moving beyond formative assessment**



#### The 4 steps of differentiation

**1) Anticipating Misconceptions:** Knowing the common misconceptions within your material, as well as typical gaps in readiness amongst your learners



When students add fractions, the most common mistakes they make are \_\_\_\_\_

2) Identifying Remediations: Figuring out how you'll address each misconception



For students who add both the numerator and denominator, I will \_\_\_\_\_

**3) Matching Learners:** Assessing your learners in a way that allows you to differentiate into groups and assigning each group the corresponding remediation, extension, or resource.



Derek goes in the Mistake A camp. Carrie goes in Mistake B. Rocky and Beckett are ready to progress onto the next lesson.

**4)** Facilitating a Sense of Progress: Communicating progress to your students. Even if they fall in the "intervention" group, show them that they're growing. Quantify this growth whenever you can.

### **IDing misconceptions & interventions**



You

what are the main misconceptions Spanish-learning students have when conjugating -ir verbs?



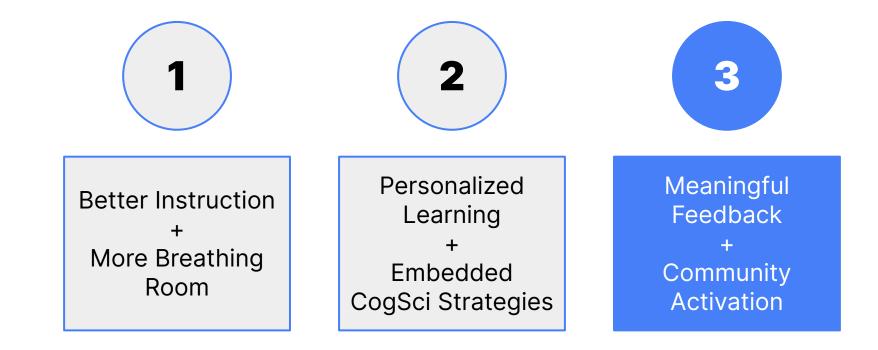
You

What can I do to support a student who is struggling to master preterite tense conjugations?

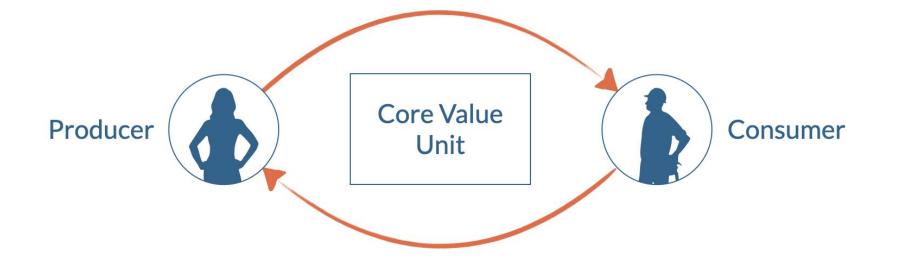
### Supercharging the science of learning



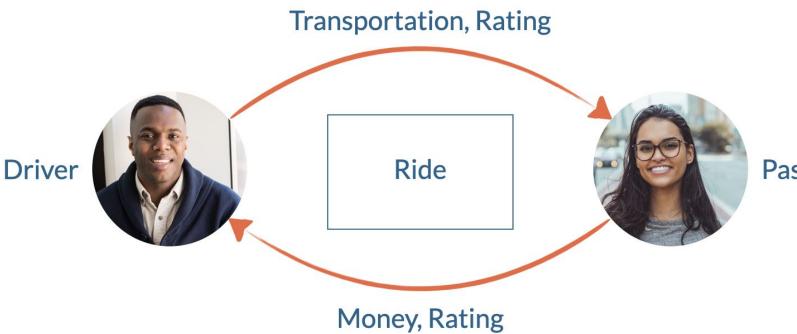
#### **Three Transformations Now Available**



#### "Core Value Units"

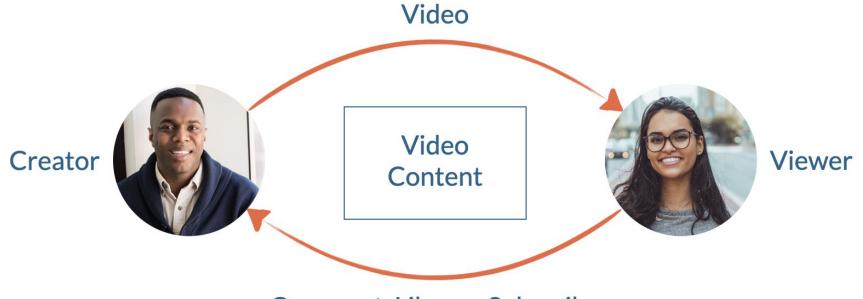






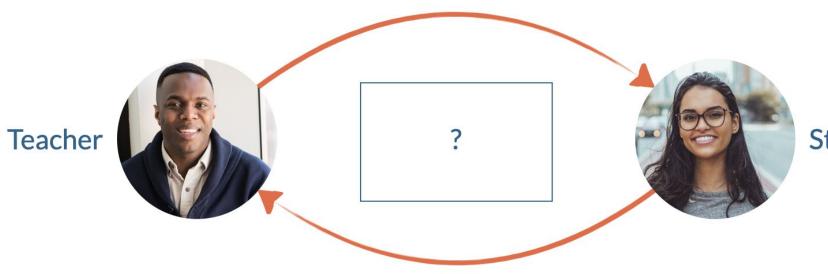
Passenger

#### YouTube



Comment, Like, or Subscribe

### **Education?**



#### Student

### **Education?**



#### What resource(s) lie dormant in our schools?



#### A new era of community engagement



### Thank you!



## **Derek Rouch**

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