## The Six Secrets of Highly Effective Mathematics Lessons- Every Day!

2016 NCTM Summer Institute: engaging Students in Learning Grades K-8 Dr. Timothy D. Kanold



**Essential Question:** What is your Mathematics *Instruction* Message You Teach to Others?

#### **Session Outcomes:**



Reflect and Connect to Six Elements of Highly Effective Mathematics Instruction

# <u>First – The difference between relevant and meaningful mathematics for students</u>

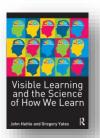
Defining Relevance: (Why)	
Defining Meaningful: (Perspective)	

## **The Six Secrets of Effective Instruction**

## 1. Activating Prior Knowledge



### 2. Establish active Peer-to-Peer Discourse



## 3. Use a variety of tasks to engage students



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List the four critical elements *for meaningful* formative feedback in the classroom. And the response required by students

### 5. Becoming great at balancing the rigor of the tasks you choose



It is important that your students' voice be heard, and often, and that they communicate with one another, as well as with you. The nature of the communication captures the dynamics of knowledge construction in that community

Professional Teaching Standards Board (2010, p.54)

#### **6. Design great Beginnings and endings** (Its how you make them feel about the mathematics)





### <u>Individual Reflection - Stop Light For 2016-2017 - The next Season of your career!</u>



Indicate one action you will stop doing

One action you will continue to do

One action you will begin to do