



# Enhancing the Math Experience for Exceptional Learners: Essentials for Instruction

Sarah R. Powell, Ph.D.

[srpowell@utexas.edu](mailto:srpowell@utexas.edu)

[@sarahpowellphd](https://twitter.com/sarahpowellphd)

[www.sarahpowellphd.com](http://www.sarahpowellphd.com)

Tasia Brafford, Ph.D.

[brafford@txstate.edu](mailto:brafford@txstate.edu)

[@TasiaBrafford](https://twitter.com/TasiaBrafford)

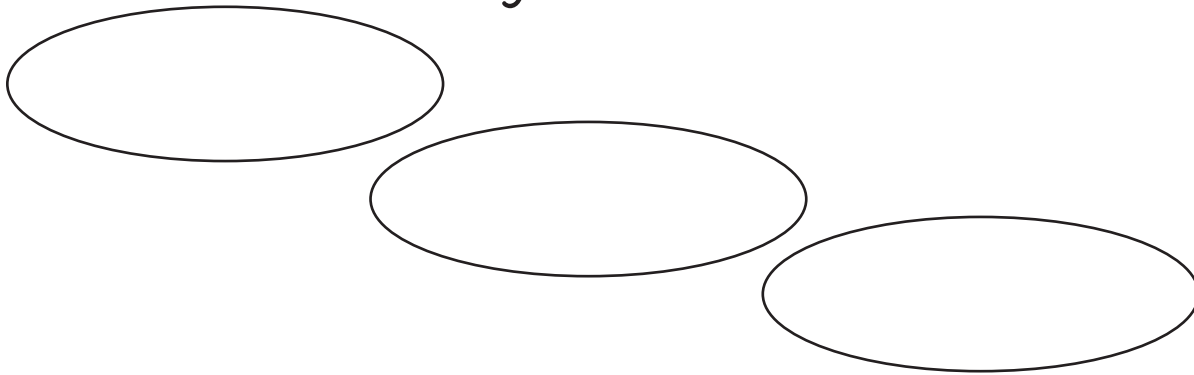
Jessica Mao

[jmao@utexas.edu](mailto:jmao@utexas.edu)

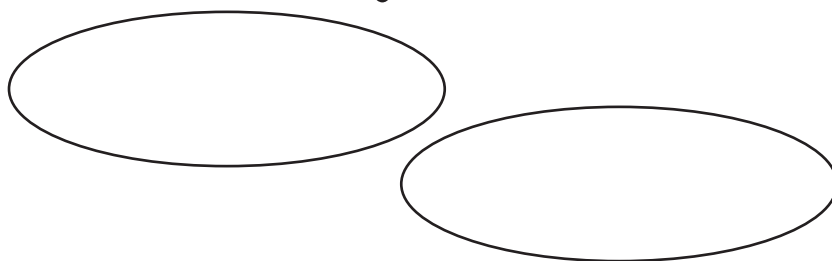
[@jessmao7](https://twitter.com/jessmao7)

## Instructional Platform

### Instructional Delivery



### Instructional Strategies



## Model and Practice

Research and Information

MODELING

PRACTICE

SUPPORTS



## Vocabulary

Research and Information

## Use Formal Mathematics Language

Instead of that...	Say this...



## Vocabulary

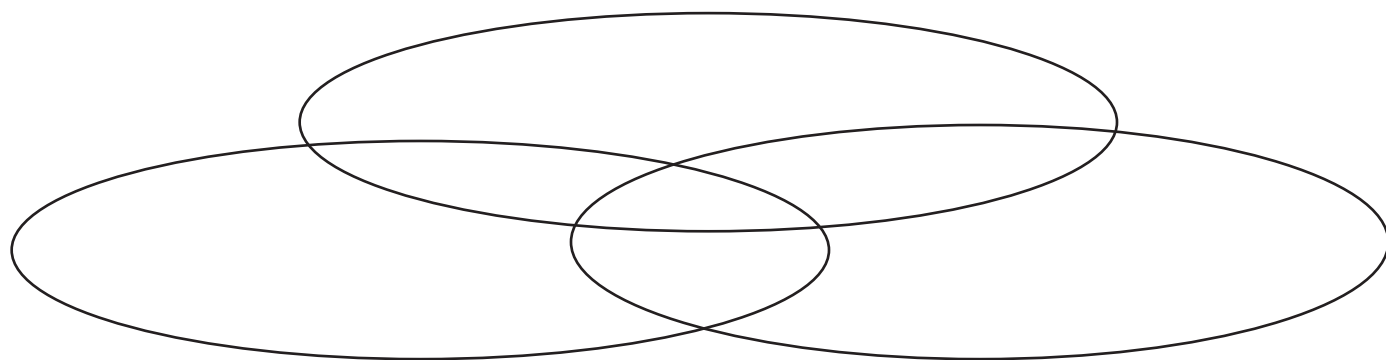
Use Terms With Precision

Strategies for Teaching Mathematics Language



## Representations

Research and Information



# Fluency

Research and Information

## Types of Fluency

Type	Memorization?	
	Yes	No



## Word Problems

Research and Information

## Word Problems

## Attack Strategies

### SOLVE

Study the problem.  
Organize the facts.  
Line up the plan.  
Verify the plan with computation.  
Examine the answer.

### R-CUBES

Read the problem.  
Circle key numbers.  
Underline the question.  
Box action words.  
Evaluate steps.  
Solve and check.

UPS✓  
UNDERSTAND  
Read and explain.

PLAN  
How will you solve the problem?

SOLVE  
Set up and do the math!

✓CHECK  
Does your answer make sense?

