

RUME 1 Fall 2018

Writing and Analyzing

Pat Thompson
September 25, 2018

Let's Talk About Writing

diction | 'dikSH(ə)n |

noun

the choice and use of words and phrases in speech or writing: *Wordsworth campaigned against exaggerated poetic diction.*

Her diction was careful—precise and thoughtful.

Participles — word (phrase) made by turning a verb (phrase) into an adjective or noun (phrase)

Dangling

After rotting in the cellar for weeks, my brother brought up some oranges.

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Dangling

After rotting in the cellar for weeks, my brother brought up some oranges.

(Brian Clark)

Uhh... keep your rotting brother away from me!

My brother brought up some oranges after they'd rotted in the cellar for weeks.

My brother brought up some oranges that had rotted in the cellar for weeks.

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Pat communicated to Ann ...

(Video 1) Ann understood that both distance and time vary together.

From this point until Pat left, Ann's language was more accurate and she made fewer mistakes than earlier.

In the beginning portion of the third lesson, Ann has the opportunity to explain her thinking about these concepts, exploring the logical conclusions of this thinking as well as ideas on how it may evolve as she begins to see patterns in the solutions to problems.

In order to facilitate communication about Ann's thinking, Pat emphasizes the concept associated with the numbers Ann is given in a particular problem rather than the numbers themselves.

In this conversation we can see Pat's focus is on an understanding of the reasoning behind a computation and not the numerical computation itself.

Let's Talk About Writing

Ann offers that multiplication would be needed to then find the total length of the line. She knows about a corresponding relationship between division and multiplication.

Pat now creates a dynamic relationship between distance and time.

Using the distance and time lines Pat represents the proportional nature for each quantity.

I suspect Pat and Bill would answer differently, after viewing videos 3 and 4, were they asked how well Ann understood that speed is the proportional relationship between time passed and distance traveled. Bill would respond that Ann improved significantly and would be able to interact successfully with all sorts of distance, time, and speed problems. Pat would most likely argue that there is insufficient evidence to conclude that Ann ended up understanding speed beyond the idea of speed lengths, partially due to the lack of reflective conversation between Bill and Ann in videos 3.5 and 4.

The Meaning of “Conceptual”

In the transition of Pat and Bill, it is prevalent to see the difference in their language to communicate a conceptual understanding of the activity to Ann.

Pat’s focus on the process also prompted Ann to reason proportionally and think more conceptually about distance and time.

Throughout the first lesson, Ann’s conceptual understanding of the rate of change was not successful due to her inability to recognize the characteristics of the varying quantities and her rationale in the procedures.

This leads to the downfall of Ann having a conceptual understanding of the varying quantities into a more procedural understanding.

It also appears as though Ann had more of a procedural understanding rather than a conceptual understanding. On numerous occasions Ann determined the amount of time it would take the rabbit or turtle to finish the race by dividing a number (the speed) into one hundred.

The Meaning of “Conceptual”

In the transition of Pat and Bill, it is prevalent to see the difference in their language to communicate a conceptual understanding of the activity to Ann.

Pat’s focus on the process also prompted Ann to reason procedurally and think more conceptually about distance and time.

Throughout the first lesson, Ann’s conceptual understanding of the rate of change was not successful due to her inability to recognize the characteristics of varying quantities and her rationale in the procedures.

“Conceptual” is a cop-out word.

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The Meaning of “Conceptual”

In the transition of Pat and Bill, it is prevalent to see the difference in their language to communicate a conceptual understanding of the activity to Ann.

Pat’s focus on the process also prompted Ann to reason procedurally and think more conceptually about distance and time.

Throughout the first lesson, Ann’s conceptual understanding of the rate of change was not successful due to her inability to recognize the characteristics of varying quantities and her rationale in the procedures.

*Avoid “conceptual”
Say what you mean.*

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Common Terms that have Technical Meanings (can be misleading when used loosely in technical writing)

- Vary
- Covariation
- Quantity
- Proportional
- Rate
- Time
- Function
- Graph

These are *constructs* when used to describe understandings people have.

Common Terms that have Technical Meanings (can be misleading when used loosely in technical writing)

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When in doubt, avoid the word and say what you mean.