## My Favorite "NO"

# A routine for analyzing mistakes\*

Set up: Give students a short (5 min) exercise designed to practice a skill the class is currently in the process of consolidating. This might be a multistep mathematical problem, an editing task, a translation exercise, balancing a chemistry equation or similar. Students complete the exercise on an index card on which they write their name. Collect & Once the given time is up, collect and sort the cards into two piles: Yes: correct, and No: some errors. Then identify your favorite "No" response. A response that has a lot of Sort things right but might exemplify a common mistake or misunderstanding. Tell the class how many "yes's" and "no's" you had. Rewrite (so that student or class Share doesn't recognize the handwriting) your favorite "no" on the board, projector, screen or other device so that the whole class can see it. Announce that this is your favorite "no." Analyze Tell the class that this response is wrong but that the person did several things that you were happy to see. Ask the class: What did this person do that I liked? What else? Then ask the class: What does this person not yet understand fully? Where is the mistake?

### Purpose: What kind of thinking does this routine encourage?

This routine provides an opportunity to analyze processes and procedures and encourages a metacognition and self-reflection.

# Application: When and where can it be used?

This can be used around skills based work in any subject area. You want to pick a skill in which students are able to exhibit various levels of understanding and proficiency. That is, they are not simply either wrong or right but there will be parts that might be correct while some errors are still evident. You also want to pick a problem where you would not expect more than one half to two thirds of the class to be wholly correct. This will avoid some students the problem is too easy and others feeling like they are slow because they are among the few that didn't get it. Lots of partial errors also give you more to choose from in terms of your favorite and more potential learning.

#### Launch: What are some tips for starting and using this routine?

This routine is often a part of a warm-up routine at the beginning of class. Though it can be used at other times as well. The first time this routine is introduced, it is useful to talk about the importance of learning from our mistakes as a natural part of continuous learning. For example, there was constant error analysis being undertaken the NASA space capsule design shown in the movie *Hidden Figures*. In fact, if you aren't making any mistakes then some might say no *new* learning is occurring, you are merely practicing what you already know. You might also want to talk about the importance of quizzing and testing oneself as an important aspect of remembering. This is often called "retrieval practice" or "the testing effect." Share with the class that this routine gives them a chance to practice a skill the class has been working on, for you to understand where they are at in their skill development prior to a formal test or quiz, for them to learn to look closely and analyze their work, and for the whole class to learn from one another.

\* Adapted from Leah Alcala. Source: http://soa.li/Od5s58h

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Cultures of Thinking