Finding Understanding with Same/Different Exploration

Identifying similarities and differences is a fundamental cognitive process. When faced with a new situation, we naturally look to see how the situation is similar to something we already know and how it is different. I recognize this process as I travel internationally. Landing in an airport with everything labeled in an unfamiliar language, I can identify items and locations that are familiar and thus understand how to operate in the environment without the language.

Pre-schoolers use similarities and differences for comparison and classification to organize and make sense of the world. Identifying similarities and differences provides the foundation for sorting, organizing, and contrasting according to attributes and characteristics. Understanding similarities and differences enables young children to link, connect, and integrate ideas as they build upon prior knowledge and create new learning.

In your work coaching teachers, observe where teachers and students are using similarities and differences to build generalizations and conduct analysis. In direct instruction approaches, teachers can specifically identify how a new concept is like and unlike an earlier studied concept; helping students see patterns and make connections.

A teacher might teach students the geography terms butte,

mesa, and plateau by first identifying that "they are all flat highlands delimited by steep cliffs" and then detail what differentiates each one.

In a student-centered approach the teacher can create an opportunity for students to do the searching and classifying of similarities and differences to discover patterns and generalizations which they can test by applying to new problems or situations.

Students in pairs are asked to identify common geographic features of major US cities. They begin finding similarities among three or four cities. They then take that generalization and see if it is true about other cities. Seeking similarities and difference is used throughout the process.

Same/different questions can often be used working with teachers in instructional coaching and facilitating PLCs to similarly guide analyzing and generalizing.

A teacher describes a concern that too many students are not completing the independent tasks that she has assigned during class when she is meeting with small groups. She asks the coach to observe "What students are doing?" After several visits to the classroom, the coach shares her observation notes which identify students by name and the behaviors observed on each visit. As the teacher examines the findings, the coach encourages same/different explorations.

Which students have similar behaviors?

Which students' behaviors are the same in each observation?

Which students' behaviors vary among the observations?

How are the students whose behaviors are leading to completing the task similar and different?

How do the assignments that had the lowest completion behaviors compare to the assignments with higher completion rates?

What questions are emerging as you examine the notes? How might additional coaching observations gather information to answer those questions? What changes might you experiment with to change some student behaviors?

Same/Different questions are often the starting point when PLC members examine student work or assessments. Identifying similarities in student results, teachers might form groups with common elements: full mastery of standard, partial/basic understanding, missing understanding. They might next take one of these groups such as partial understanding and search similarities and differences within that group to identify areas for planning the next learning activities for those students.

Here are cue words you can use to frame same/different

questions that support analysis and induction thinking.

SAME/DIFFERENT

Compare

Contrast

Differentiate

Same

Different

Alike

Similar

ANALYSIS

List
Sequence

Outline
Categorize

Classify

Analyze

Reasons

Factors

Parts

Procedures

Sort

Mind map

Define

Steps

INDUCTION

Qualities

Rule

Pattern

Generalization

On the whole

Common elements

Common characteristics

Resource: ***Questions for Life: Powerful Strategies to Guide Critical Thinking***
(EBOOK and Softcover)