SOME SUGGESTIONS FOR TALKING TO "OTHERS"
ABOUT *SCIENCE IDEAS*

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1. As *Science IDEAS* principals and teachers you have a rich understanding of what you accomplish with students in your classrooms.
2. But the concept of "*Science IDEAS*" is difficult to explain to others who have not visited your classrooms. *Science IDEAS* is a rich instructional context that is very atypical.
3. Our focus here is: What are some major concepts that would help explaining *Science IDEAS* to others.
4. Specifically: What are some conceptual "big ideas" or "sound bytes" for talking (and thinking) about *Science IDEAS*
    a. *What is Science IDEAS about*? (Points to emphasize..)
        i. "Meaningful comprehension" is a much more general concept than "reading comprehension." "Meaningful comprehension" and "meaningful understanding" are typically used as synonymous terms.
        ii. "Meaningful understanding" involves "cumulative organization/re-organization and accessing of conceptual knowledge" This is an "active" process in *Science IDEAS*
        iii. *Science IDEAS* builds meaningful understanding through different activities (e.g., hands-on, writing, journaling, concept mapping, reading) that all focus on the same core concepts (i.e., "concept clusters").
            1. (Remember)- Prior knowledge is the major determinant for future success in meaningful learning. Prior knowledge is "intellectual capital" for future learning success that is developed in *Science IDEAS*
            2. As students are able to relate all of the different activities to the same concepts, "meaningful comprehension" (i.e., their knowledge) develops in a cumulative fashion
            3. This is why the major emphasis in *Science IDEAS* is "Learning more about what is being learned."
    b. *What has research repeatedly shown about Science IDEAS*?
            1. Teachers are able to implement *Science IDEAS* with fidelity
            2. Students learn more in-depth science through *Science IDEAS*
            3. Students in *Science IDEAS* are more motivated to learn and have greater academic self-confidence
            4. **AND**- Students develop greater proficiency in reading comprehension (How Science IDEAS accomplishes this without traditional reading comprehension instruction raises important questions – see (c) next...)
    c. How do Science IDEAS and traditional approaches to Reading/Language Arts fit together? (What has research shown…
        i. (Remember)- *Science IDEAS* in controlled studies has consistently resulted in increased reading comprehension proficiency (when replacing traditional reading/language arts instruction for 2 hours/day)
        ii. "Reading comprehension" depends on prior knowledge, not "reading skills"
        iii. "Reading skills" are the *result* of meaningful comprehension, *not causes of it* (e.g., main idea, cause effect, sequencing). In *Science IDEAS* students do learn

to use "reading skill terms" to identify what they have comprehended (e.g., You just identified the "main idea" in what you have been reading!)

iv. To be useful , reading comprehension "strategies" must:

1. Guide student activation of prior knowledge (i.e., access and focus student attention on their relevant prior curricular knowledge (what they have learned previously) as the basis for understanding what they are reading- such as is done in the *Science IDEAS* reading comprehension strategy)
2. Be applied in a context in which what is read *has meaningful knowledge* to be learned (traditional basal reading passages do not by design). Otherwise- research has shown reading comprehension strategies do not transfer to comprehension in content area reading

v. "Literature" is best approached as a content area in its own right and should be scheduled at other times in the school day (i.e., it is a content area that is not part of *Science IDEAS*). Also, the concept of literature as an important content area is far broader than "reading."

vi. Focusing on and preparing students for the types of "items" on state or national reading tests is important (e.g., test prep for learning about items that test main idea, cause effect), but has nothing to do with developing the type of meaningful student comprehension that results from *Science IDEAS* that students will use in future learning.

d. *How should you approach communicating about Science IDEAS?*

i. Focus and re-focus on (a) and (b) above- these are the "big ideas"

ii. Use examples from your own classrooms to illustrate points in (a) and (b) as necessary

iii. Deal with concerns about (c) on an exception basis- address the concern raised, then return to the points in (a) and (b) as quickly as possible