

The Subtleties of Instructional Mediation

Instructional leadership involves more than increasing time-on-task. Supervisors must be able to help teachers develop students' understanding of difficult ideas.

Instruction is more than getting students on task and presenting content in organized ways. It is also a cognitive interaction between teacher and students, particularly when the goal is to develop conceptual understandings rather than automatized responses. Such instruction is much more subtle than earlier concepts of instructional effectiveness have led us to believe, and it requires much more substantive supervision.

The Subtleties of Instruction

Humans make sense of their environment by constructing understandings from the experiences they encounter. Students are no different. The tasks they encounter in their school experiences lead them to build understandings about what to pay attention to, what is important, and how to behave. Their understandings do not occur instantly, however. When they come to school students already possess conceptions about what they are to learn. When teachers provide reading tasks, for instance, the students' old conceptions are not immediately erased and replaced with a new understanding. Instead, students combine the new school task with their old understandings and build new conceptions.

“Students restructure school tasks, creating understanding that may be different from what the teacher intends.”

These modifications are not always what the teacher intends. Students who are repeatedly given reading seatwork tasks that keep them busy come to understand, for example, that the task is “to get done” rather than to learn to read (Anderson 1985). Hence, one subtlety of instruction is that *students restructure school tasks*, creating understanding that may be different from what the teacher intends.

Instruction is also more than creating tasks; teachers help students *interpret* these tasks by the way they talk about them. Ultimately the students construct understandings largely from what the teacher says or leaves unsaid.

In a recent study of teachers who talked about reading as a strategic task and others who did not, the students of the former teachers came to understand that they must be strategic when reading, while the students of the latter group of teachers demonstrated little understanding that reading involves strategies (Duffy et al. 1985). *The influence of the teacher’s talk* is a second instructional subtlety.

A third subtlety is that *instruction is interactive*. That is, after providing information about a task, the teacher observes students as they try to do the task, notes their restructured under-

Table 1. Interpreting Instructional Interaction

The Instructional Interaction

T: This time I want you to choose the main idea by yourself and see if you agree with the person whom I will ask to do it aloud.

S: (Students silently read a paragraph about groups of people bringing words to the English language.)

T: All right. Have you done all the steps and chosen the main idea? John, what did you choose?

S: People came to America.

T: I’m going to give all of you a clue. In this particular paragraph, it (the main idea) is not stated. There is no single sentence that really tells you the main idea so you are going to have to sit back and say to yourself, “What one thing is this paragraph mostly about?” Remember I did that on the one I showed you? All of you do that, if you haven’t already.

S: (Students are silent.)

T: Now, John, do you have the main idea?

S: Yes. People brought language.

T: Would you tell us what you did so we will know how you came up with that answer?

S: I read the whole paragraph.

T: All right. You read the whole paragraph. Then what did you do?

S: I thought about what it was all about and that was my main idea.

T: That’s good thinking, John. He gave us a main idea. But I think one important piece is missing.

Interpretation

The teacher provides directions for using the skill in a paragraph. The paragraph to be read is part of an article in a language arts text.

The teacher asks for a response.

Student provides an answer. Teacher notes the answer and determines that he misunderstood how to figure out the main idea. The teacher decides on what additional information to present.

Having decided that the students were looking for stated main ideas, the teacher reminds them of the model she provided for how to figure out implied main ideas.

Students try to apply the cue provided by the teacher.

The teacher asks for a response.
Student provides an answer.

The teacher asks for the process John used to see how he arrived at his answer.
John tries to articulate what he did. The teacher assesses and decides what to say next.

The teacher prompts John to see if he can tell her more about how he got his answer.
The student provides additional description. The teacher assesses his answer and decides that he is not attending to one important thing. She then decides what to say next.

The teacher reinforces John for what he did well but states that one more thing needs to be attended to. She is cueing the students to an elaboration that she is about to provide.

standings, and provides additional information to help them refine their understanding. Both the teacher and the students actively mediate information during this interactive exchange. The students mediate the teacher's initial instructional information in terms of their old conceptions, creating restructured understandings. The teacher mediates what students say and do in performing the task, using this information to decide how to respond. This fluid cycle of responsive information exchanges between teacher and students continues until the teacher is satisfied that the students have learned the intended outcome.

This responsive cycle is the heart of instruction.

Finally, *instruction* is subtle because it is *longitudinal*; it occurs over time. When teachers talk to students about being strategic readers, for instance, students do not immediately understand what that means. But as the teacher continues to assign reading tasks and to talk about how to do them strategically, the students' restructuring continues. Over time, they modify and refine their understandings, eventually building conceptions similar to what the teacher has in mind. The change is gradual.

“Teachers help students interpret tasks by the way they talk about them.”

T: Remember earlier in the lesson when I said that I take all the important ideas, think about how they go together, and tie them together with the one idea they all seem to have in common? That's what is needed here. Do like I did. Think about what the ideas describe for you and how those all go together. Tie all the important ideas together.

S: (shouting out) I just got one.

T: All right. What did you think, Mary?

S: Each group of people brought their own set of words.

T: That's pretty close to it. I could accept that. I would not argue with that. Scott?

S: After a while, these words became part of our language.

T: Let's look at Scott's answer. We've read the whole paragraph. We've sat back and thought, "What one thing is this all about?" We know it's talking about groups of people, their language, and how some of ours became theirs. Scott's main idea doesn't quite tie all those ideas together. The key is the tie between all those ideas.

T: You have a changed one, Scott?

S: We borrowed words from other places, and they borrowed words from us.

T: Okay. I think Scott gave a good one. He tied all the ideas together. The tie was the borrowing of words.

T: Notice, we don't always say what the main idea is in the same way. But we should come close to each other.

T: The main idea needs to tie together all the important ideas.

T: Let's look at page 4, the last paragraph.

The teacher provides an elaboration on her original explanation, reminding them of previously provided information and emphasizing how to "tie ideas together."

Student responds.

Teacher asks for answer.

Mary provides an answer and the teacher assesses, deciding what to say next.

The teacher reinforces the answer and asks for another response in order to have more data before elaborating. Scott answers. The teacher assesses and decides what to say next.

The teacher, having assessed both answers, decides that they do not yet understand how to tie the ideas together. She elaborates by reemphasizing the need for a tie across all ideas.

The teacher asks for an answer.

The student provides a re-stated main idea. The teacher assesses Scott's restructured main ideas.

The teacher reinforces Scott's combining of ideas into a main idea.

The teacher states the individual nature of cognitive processing.

The teacher moves to another example to provide other opportunities for guided practice.

“A fluid cycle of responsive information exchanges between teacher and students continues until the teacher is satisfied that the students have learned the intended outcome. . . . This cycle is at the heart of instruction.”

How a Mediated Reading Lesson Works

The subtleties of verbal mediation are found in virtually all lessons. To illustrate, let's examine table 1, a 3rd grade teacher's reading lesson on main idea, one of hundreds of low reading group lessons we and our colleagues have studied during the past four years (Roehler 1984, Duffy et al. in press a, Duffy et al. 1985). The excerpt begins with the teacher providing guided practice to help students use a skill she has just finished modeling. In Pearson's language (1985), she is "gradually releasing the responsibility" so students can independently use it. Note that (1) the students restructure information from the teacher; (2) the teacher's talk, as well as the task, shapes student understanding; (3) the teacher and students engage in an interactive cycle in which the teacher presents information, students restructure it, the teacher elaborates, and students restructure it again; and (4) student understanding develops over time, not in a single interchange of information.

The teacher in the table 1 example is effective not only because she has high time-on-task and logically organized lessons, but also because she (1) makes substantive statements about how to do the task, (2) asks for answers to assess how students have restructured her explanation, and, on the basis of these responses, (3) provides still more information. Less effective teachers, in contrast, do not note student restructuring and do not engage students in instructional interchanges designed to provide a mediational bridge between the students' current understandings and the ultimate outcome.

Implications for the Supervision of Instruction

When viewed through the lens of reciprocal mediation of information, instruction is a much more subtle enterprise than research on student engagement and sequential lesson events leads us to expect. Consider time. We know that if students pay more attention they learn more. It seems, therefore, that the key to effec-

tive instruction is accumulating more student time-on-task. However, the teacher's talk during this time is also crucial, because the understandings students construct reflect what the teacher says. For instance, we observed two teachers teaching a lesson on context clues. Although they engaged students for equal amounts of time, they created startlingly different student understandings by saying different things during verbal exchanges (Duffy et al. in press b).

Similarly, it is not enough simply to ask students questions. While questions are interactive and get students on task, they rarely contain enough substantive information for students to restructure their understandings. This is particularly so for low-achieving students. Because their backgrounds about how reading works are sparse and because most classroom questions contain little substantive information, questioning alone leaves low group students with virtually nothing

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with which to construct new understandings.

Merely to follow the steps in a particular lesson format is not enough either. Because students progressively structure their understandings day after day, instruction does not always start with step one of a lesson. Instead, instruction is a series of conceptually cohesive encounters over time. Consequently, while a teacher may use a particular lesson format to introduce something new, subsequent lessons may begin at various points in the format or repeat components of the lesson covered earlier. Where the teacher begins the lesson on any given day depends on his or her assessment of the students' restructured understandings at that time.

Finally, instruction can no longer be viewed as a static script to be prescribed in advance. Even the teacher's lesson plans are temporary documents that must be modified as the dynamic and responsive instructional exchange unfolds. No one can accurately predict students' restructured understandings or what the appropriate teacher response should be. Consequently, instructional leaders must help teachers make spontaneous decisions about how to verbally mediate students' understandings.

A New Dimension of Leadership

The teacher's role as a cognitive mediator adds a new dimension to our understanding of instruction and a new challenge for instructional leaders. To help teachers verbally mediate students' understandings of conceptual learnings is a more difficult leadership role than to ensure adequate task engagement or adherence to certain lesson plan formats. It is, however, a role that gets at the heart of effective instruction. □

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