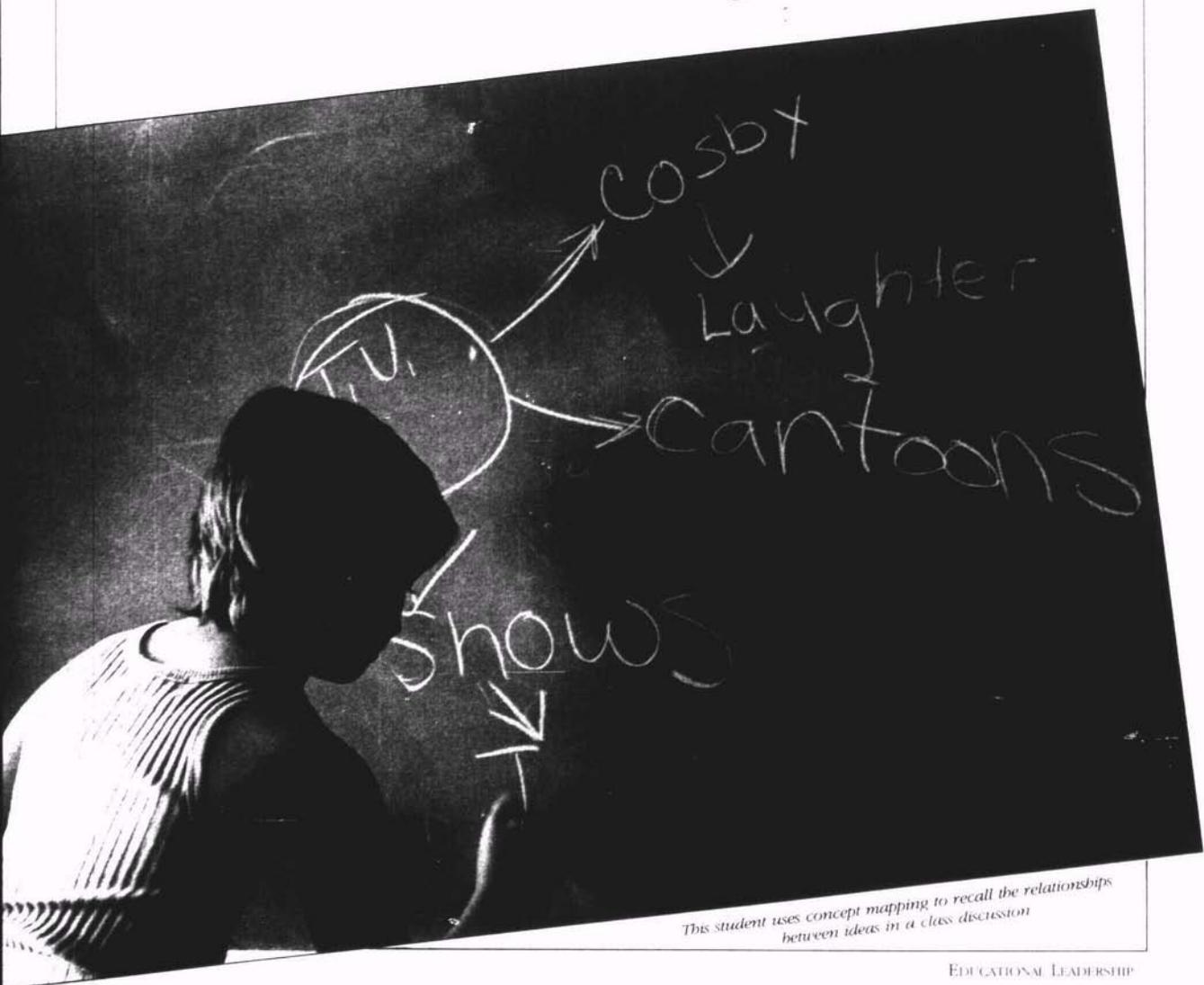


Enhancing Understanding Through Debriefing

Giving students opportunities to reflect on and explain the meaning of their experiences can help them integrate and retain new learning.



This student uses concept mapping to recall the relationships between ideas in a class discussion

Students in a tenth-grade class read an article in the class newspaper that discusses the probability that life exists on other planets. After asking a series of who, what, and where questions, the teacher shifts the discussion to another item in the newspaper.

Taking turns reading aloud, students in an honors English class bear recounted the agony of Oedipus' making his horrifying discovery. The teacher asks several questions about the facts of the matter, and soon discussion of tomorrow's quiz dominates the interaction.

What meanings did the students in the above vignettes gain from their readings? What if there *were* life on another planet? What implications do students see for such an eventuality? What does the concept "incest" mean to the students?

In all subject areas, from the highly charged plays of Sophocles to new discoveries in science, students accommodate to their own conceptual systems the things they are told, what they hear, and what they perceive (Abelson 1981). These accommodations form the essence of meaning. As Novak and Gowin (1984) point out, meaningful learning enables the student "to tie things together and connect part to part to whole." It is "meaning" in this sense that allows the student "to exercise the powers of inference, self-understanding, and thoughtful action" (p. 110).

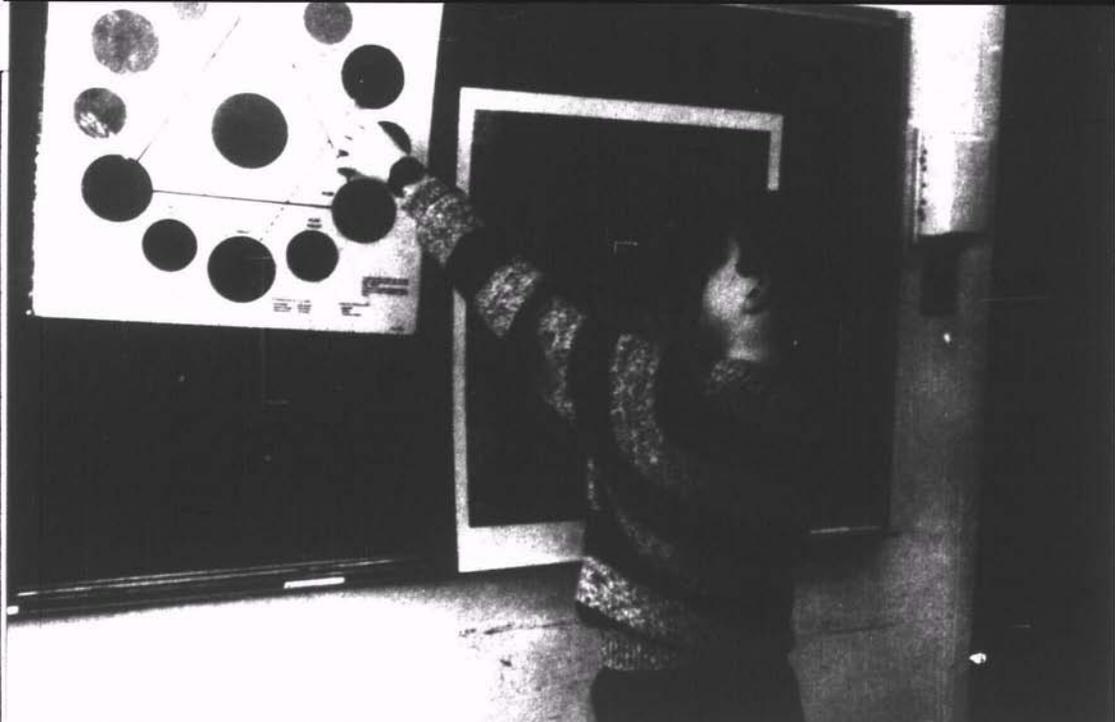
The student's process of accommodating new information to his or her own conceptual system, however, is fraught with pitfalls. A student may distort new learning to make it fit previously learned material. In this case, the accommodation may, in the long run, hinder future learning. Or the student may not see how the new content relates to *any* previous learning and may treat it as discrete material to be learned by rote, tested, and forgotten. On the other hand, a student may see how the new learning relates to previous learning and resolves questions he or she has harbored for some time.

To ensure that students will accommodate new learning in positive ways, teachers can use debriefing.

Debriefing Strategies

I am sensitive about using a borrowed term to describe techniques teachers have used for years to advance the understanding of their students (Pearson and Smith 1985), but in this case, "debriefing" seems especially apt and particularly graphic. A term originally used to describe the process of working with spies or astronauts after completing a mission, it is based on the belief that persons involved in such complex operations or experiences cannot remember all there is to tell, that they have impressions that are difficult to verbalize, and that they may forget or distort what they have seen or heard unless their accounts are thoroughly reviewed and shared. In schools, debriefing is a process of

"Debriefing gives students relatively free rein to organize, compare, classify, evaluate, summarize, or analyze an experience."



Comparing the colors in a painting to the color wheel relates one experience to another and helps the student operate on his experience by organizing it.

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helping students reflect on their learning experiences, attach personal meanings to them, and deepen their understandings. Consider the following examples.

After a field trip to a farm, the teacher asks students to draw a picture of the most important thing they saw on the visit. The pictures are collected and displayed before the class. The various representations are grouped, discussed, and shared.

At the end of a unit on the Civil War, the teacher involves students in a culminating experience, that of preparing a simulated "60 Minutes" documentary on the war, designed to draw together and to integrate what the students have learned during the six-week period.

After carrying out a scientific experiment, students are asked to prepare laboratory reports to identify their assumptions, their findings, and their conclusions from the experiment.

These activities enable students to share what they learned through an experience, to summarize what the experience meant to them, and to provide the teacher with the opportunity to review what students did not understand very well.

Debriefing: A More Precise View

Debriefing is not the same as summarizing. Summarizing is often a task performed by others, frequently the

teacher, who gives the gist of what happened or what was covered. It might serve as a debriefing process for the person giving the summary. But listening to a summary does not give a student the opportunity to make sense of what has been taught or experienced, to operate on experience by organizing it, to emphasize some elements and not others, or to relate the experience to other events or ideas.

Preparing for a test is probably not a debriefing process either, since cramming is often a process that students do on the teacher's terms—working to understand the course as the instructor sees it. While insights and new meanings might well be a product of a cram session, it is not a likely outcome—especially if the test is an objective, short-answer examination. If the exam, on the other hand, asks students to share their own understandings, to identify the strengths or weaknesses in some narrative, or to reorganize what has been learned into a comprehensive whole, then debriefing is more likely to occur.

Debriefing gives students relatively free rein to organize, compare, classify, evaluate, summarize, or analyze an experience. The product of the debriefing process is an articulated sense of "meaning." It is through this process of constructing personal meanings that students reveal their misunderstandings, oversimplifications, and personal theories.

Teachers can use several activities to help students attach meanings to learning experiences.

Writing logs/diaries can document students' reactions to events and are particularly useful if the entries interpret what has happened.

Writing a precis, a concise abridgment, asks students to identify the gist of an experience, reading, or observation. It requires students to prioritize their own impressions and become more articulate about the meanings they have attributed to experiences.

Naming themes asks students to think of the personal lesson that was learned, message that was conveyed, or thrust of a reading passage or experience. Again, the task here is not to be

... recent meta-analyses demonstrate that intermittent summarizing or recalling increases students' ability to recall what they have learned."

too literal, but to abstract meaning from an experience. The question, "What does it (the assignment, topic, experience) remind you of?" encourages students to find themes or gists.

Imagining requires students to imagine "what if," to pretend, to create alternative endings, to surmise about alternatives. Each such effort, however, should be disciplined at least in part by the student's own interpretations of the experience.

Evaluating asks students to rate or rank an experience. Students can be invited to share or defend the bases of their evaluations.

Role-playing gives students an opportunity to act out their understandings of processes, or a literary character's personality, or new problematic situations. Again, not just any behavior on the part of the student is on target. Students need to try to use their interpretations of the elements of the experience.

Drawing is a nonverbal assignment that can help students identify major themes or issues. Since writing narratives can narrow the scope of shared meanings, the assignment to draw a picture often helps students identify salient meanings derived from experience.

Comparing requires students to relate reading a book or a poem or taking a field trip to another similar experience. This encourages them to identify features of each that they consider relevant.

Concept mapping is another nonverbal approach. It asks students to visualize and draw the relationships between concepts with a series of links or chains.

Outcomes of Debriefing

The recent work in cognitive psychology and cooperative learning supports the claim that debriefing enhances learning. Yager, Johnson, and Johnson (1985) assert that recent meta-analyses demonstrate that intermittent summarizing or recalling increase students' ability to remember what they have learned. They further claim that "cognitive rehearsal"—the process that occurs when students talk about what they have learned—is "one of the most promising of the mediating variables" examined to account for the success of cooperative learning (p. 61).

By teaching students strategies to help them recall and reconstruct what they have learned, teachers can instruct not only for facts, but for understanding. □

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