

professor has included to clarify the main points for you. He hopes the extra information will tease you into greater awareness of those main points. He would be horrified to realize that most of his students *miss* those main points and remember the details instead.

You can pick out the main points by listening for cue phrases. Sometimes cues are very simple: "Our topic for today is..." the professor will say. But other times he will bury his cue in elaborate rhetoric, and you will have to figure out where the rhetoric ends and the main point begins: "Picture the day Lincoln arrived at Gettysburg in his dark top hat and cape, his shoulders stooped," the professor intones, and you wonder if this lecture is about Gettysburg, Civil War fashion, or curvature of the spine. Keep listening. He'll drop a cue eventually.

Cues for related subpoints can be very brief and are easily missed if you're not listening hard. Phrases like "on the other hand," "another way of looking at that," "next in importance," "turning now to," can signal a new point. Sometimes a single word—"however," "therefore," "but"—may introduce a point. You have to think as you listen, learning to differentiate the trivial from the important.

Encoding Follows Naturally

Once listening is mastered, note-taking becomes absurdly simple. All you have to do is write down the main points, adding just as much detail as you care to for your own entertainment or clarification. Studies have been made of different note-taking styles, and the studies are, frankly, inconclusive. One study comparing four note-taking styles—a formal



outline method, a two-column format, the "Cornell three-column format" and "no special method"—revealed that none of the methods had any merit over the others. There were no differences in student grades attributable to note-taking methods.

But a study that compared students who did not take notes with those who did, revealed that note-takers always make better grades. It's not "how" but "whether" you take notes that counts. Why? None of the researchers ventured any answers, but it may be that note-taking is a form of encoding. Lectures make you select what's important (because you don't have time to get *everything* down), and they make you put the information down in your own words (because you don't have time to put it down in the professor's words). In lecture you become an encoder in spite of yourself. You're forced to do there what you should do for texts. No wonder so many students feel they learn more in lectures. A text ought to be more

valuable than a lecture because it's better organized, more comprehensive and less likely to mumble. Yet a text can't force you to encode.

Ah, But What of It?

One autumn when students returned to campus, a professor named E. B. Greene gave them the same exams they had taken the spring before. Even "A" students had forgotten 50 percent of all they had successfully memorized the term before. Another professor, E. T. Layton, found that students lost two-thirds of their algebraic knowledge after a year.

What's the use? Even with the best study habits, you will eventually forget what you've learned. You will get through tests, but what of it if it's all gone by next term? Memorizing, dictaphone style, seems to all students a pointless exercise.

In a 1932 book called *The Psychology of Study*, Cecil Mace wrote, "If the student has any compensating merit, it lies in being something more than a mere recording machine." That something, he argued, was thinking ability. You are doomed to forget most of what you learn; the only merit in all this is that somehow because of it, or at worst in spite of it, you learn to think.

But what is thinking? The best Mace could do in 30-odd pages of essay was suggest that free association might be involved. Hundreds of other thinkers have struggled with the question, and among them the most honest might be Walter (OK4R) Pauk who has said that thinking, despite all the thinking done about it, remains largely a private matter.

So how is memorization related to this private skill? For an insight into that we can go all the way back to a letter the not-yet Saint Thomas Aquinas wrote to a Brother John: "Since you have asked me how one should set about to acquire the treasure of knowledge, this is my advice to you concerning it: namely, that you should choose to enter, not straightway into the ocean, but by way of the little streams; for difficult things ought to be reached by way of easy ones. . . . Do not heed by *whom* a thing is said, but rather *what* is said you should commit to your memory. . . ."

Victor White, commenting on this letter, has written: "Note how careful St. Thomas is. Brother John is to commit what is said to his *memory*; he is not straightway to commit his *intellect* to it. He is not at once to swallow everything that is said; let him remember it in order to test and examine it, but not at once to assent to

Two Unlikely Learning Techniques

Teaching Others

It's true. Teachers learn more from a course than the students. If you try to teach material to someone else, you are forced to grasp it in new ways, to express it in terms the other person can understand. This helps you remember. Tests at one university had a group of students study material using the SQ3R method. Another group also used the SQ3R method but was required to teach the material to other students. The student teachers did significantly better on tests than the control group. The catch in this technique is finding a "student" who is willing to learn biology or psychology or economics from you. But if you can talk someone into being your student,

you may learn more than you ever have before.

Mapping

Some people are just visually minded, so transforming a text or lecture into a picture or "map" might be the best way for these people to learn. To draw a map, put down the key idea first. This becomes the "buried treasure" on your map. Then draw in secondary or supporting ideas around the buried treasure. Lastly, draw in the critical details. Why this works is that you have to *find* the secondary and supporting ideas before you can draw them. In doing that you learn them. Mapping, as its author, M. Buckley Hanf, says, "is thinking." And the best way to learn mapping is to do it.