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The Elusive Search for Teachable Aspects of Thinking

One of the first problems we have when we attempt to teach thinking is knowing what we are trying to teach. It is generally easier to say what we are NOT teaching. The teaching of facts--such as names and dates of history, tables in math or chemistry, or foreign-language vocabulary--is not the same as teaching students how to think. This is not to suggest that the teaching of fact is unimportant, only that we consider it as something different from teaching students how to think. The distinction is necessary because in practice many of our classrooms seem to focus to a large extent on information retrieval, with little or no emphasis on the teaching of higher order intellectual processes.

Teaching thinking is also different from teaching students *what* to think. What students must learn is *how* to think better rather than any particular content or point of view.

We come closer to teaching thinking when we teach students good thinking *strategies*, but this is still not the same as teaching thinking. However, it is tempting to stop here because it seems like we are teaching thinking since we can describe it so accurately and because it is infinitely easier to describe good thinking strategies to students than it is to create situations where they will discover and experience it themselves. I admit that there have been times when I have been very much aware, as I lecture to the Thinking, Reasoning, and Expressing classes, that they were not paying the slightest attention to what I was saying; rather, they were studying me and the manner in which I rambled on about mnemonic techniques or the retrieval strategies I found so instructional in the literature. Few would disagree that I am teaching *about thinking* but the activity is still different from engaging students in the act of thinking.

Obviously, when we teach thinking we are instead creating for the students the *experience* of effective thinking. There exists a long and persuasive argument in the literature reflecting the position that the only effective way to effectively teach students to think is to engage them in the thinking process. Dewey's classic How We Think (1910) certainly reflects this view, as does Binet's 1911/1962 series of exercises called "mental orthopedics." In 1936, Symonds wrote in Education and Psychology of Thinking that "In order to learn to think one must practice thinking in the situation in which it is to be used" (pp. 235-236). In 1961, the National Education Association reported that "the learner must be encouraged in his early effort to grapple with problems that engage his rational abilities" (p.17). Given this notable consistency in

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philosophy within the literature, it is striking to discover that there exists very few empirical studies that show us how to do it (Kuhn, et al, 1988). Instead, in the last decade, emphasis has been placed on teaching students about thinking.

However, even if we agree that our goal is to create the experience of good thinking, we seem to disagree on what this experience might be. We have instructors at WCU who advocate that we ought to "promote logical thinking and reasoning." We have others who say we ought to "enhance cognitive and memory strategies," while still others assert that we ought to stimulate thought on issues that illustrate the logic and history of a specific discipline, like history or biology. Finally, there are those who feel that a "focus on oral communication" will accomplish the goal of teaching students to think effectively. Are logical thinking, reasoning, cognitive strategies, mnemonic techniques, and the logic or history of a specific discipline the same thing? And how do they relate to oral communication skills?

The development of effective thinking—at least in the sense that Dewey had in mind—ostensibly involves a major shift in the way the student looks at things. It is not simply a skill or set of skills that can be taught in the way Biology or algebra or history are taught. For us at the university level, the essential question still remains: how do we teach thinking so that seniors think more effectively than freshmen? The initial step may be to help students see the quality of their thinking as something under their own control (Wilson and Linville, 1985). The implications for such an approach are most telling: to focus more on the process than the product, to emphasize student efforts and personal standards over normative standards for success, and to stimulate achievement through intrinsic rather than extrinsic means.

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References

Detterman, D. K. & Sternberg, R. J. (Eds.) (1982). How and how much can intelligence be increased. Norwood, New Jersey: Ablex.

Dewey, J. (1933). How we think. New York: Heath.

Dewey's classic book is still the basis for most of the problem-solving training procedures in use today.

Kuhn, D., Amsel, E., & O'Loughlin, M. (1988). The development of scientific thinking skills. San Diego, CA: Academic Press.

National Educators Association, Educational Policies Commission (1961). The central purpose of American education. Washington, D. C.: National Educators Association.

Symonds, P. (1936). Education and the psychology of thinking. New York: McGraw-Hill.

Tuddenham, D. (1961). The nature and measurement of intelligence. In L. Postman (Ed.), Psychology in the making (pp. 469-525). New York: Alfred A. Knopf.

Whimbey, A. (1976, January). You can learn to raise your IQ score. Psychology Today pp. 27-29; 84-85.

Wilson, T.D. & Linville, P. W. (1985). Improving the performance of college freshman with attributinal techniques. Journal of Personality and Social Psychology, 49, 287-293.