

Learning: A Matter of Style

Rita Dunn

Educators across the country have begun classifying students and identifying complementary resources, methods, and programs that improve their academic achievement and attitudes toward school.

• In New York

Trautman examined student achievement in knowledge, comprehension, and application when instructional materials were matched and mismatched to individual styles. His study revealed three important findings: (a) there was no difference between the relative achievement of analytic and global students when they were taught through resources that matched their styles; (b) whenever the instructional materials were matched to the student's identified style, statistically significant academic gains were made; and (c) whenever the materials and the styles were mismatched, achievement fell below that of both matched groups.¹

The implications of this study are far reaching. Subjects, such as mathematics, that are analytic and tend to be taught that way may become difficult for global students who require global instruction to learn easily. Conversely, social studies, which tends to be global, probably should also be taught analytically for students whose cognitive style would be complemented. Youngsters who consistently either do well or poorly in specific subjects may be responding to the ways in which the material is presented rather than to the subjects themselves.

It would not be difficult to have teachers instruct in whichever style is "natural" to them, and then to offer an alternative style through either a programmed learning sequence, an instructional package, a Contract Activity Package, or a videotape. Another option is to permit paired teachers to offer the same topics, one teaching globally and the other analytically. If those procedures helped underachieving students to improve and to succeed, they would be much

less costly than remedial programs at every level.

• In Oregon

An investigation to identify individual learning styles among high school students and how those styles interact with instructional environments to affect learning outcomes showed that it is virtually impossible for a single program to respond to the differences that exist among adolescents.² When comparing youngsters who achieve independently, those who achieve through conformity, and those who are dependent upon others for their orientation, Martin found that independent students functioned better in an alternative school where they achieved both higher grades and satisfaction. On the other hand, dependent students fared better in a traditional environment.

This study strongly supports Fantini,³ Reckinger,⁴ and Raywid⁵ in their contentions that alternative educational environments must be provided to permit varying learning styles to succeed.

• In California

A teacher-directed effort to identify learning style differences and then to match appropriate instructional strategies led to the following classifications of student types: (a) adventurers; (b) ponderers; and (c) drifters. For information concerning 58 behavior statements used as descriptors, write to C. M. Charles, San Diego State University, Elementary Education Department, San Diego, California 92182.

• In Ohio

On two tasks—visual discrimination and auditory comprehension—students in the group that worked with productive sound did as well as those in the "no-noise" population, and the results were similar for each grade level. When the sex of the student was considered, girls did not per-

form as well when sound was permitted, but boys "performed better with noise." The researchers concluded that, "noise bothered the girls and helped the boys."⁶

Two ramifications should be considered. Restak verifies that females are more sound sensitive than males;⁷ females, therefore, must be more aware and, therefore, more responsive to sound than are males. Thus, because they hear better, they are more likely to be more disturbed by sounds.

Secondly, although Glickman and Christie's experiment is to be admired, it is essentially only a first step toward determining the extent to which sound affects learning. Hopefully, researchers will test students before an experiment to determine individual sensitivities to sound. For example, when given the option, which students: (a) study in silence; (b) study with sound, such as the radio, a stereo, or television; and (c) can "block out" sound and study in the

¹ Paul Trautman, "An Investigation of the Relationship Between Selected Instructional Techniques and Identified Cognitive Style." (Ph.D. dissertation, St. John's University, New York, 1979).

² Michael Kenneth Martin, "Effects of the Interaction Between Students' Learning Styles and High School Instructional Environment," (Ph.D. dissertation, University of Oregon, 1977).

³ Mario D. Fantini, *Public Schools of Choice* (New York: Simon and Schuster, 1973).

⁴ Nancy Reckinger, "Choice as a Way to Quality Learning," *Educational Leadership* 36 (January 1979): 255-56.

⁵ Mary Anne Raywid, "Models of the Teaching-Learning Situation," *Kappan* 61 (April 1977): 631-35.

⁶ Carl D. Glickman and Daniel J. Christie, "Does Classroom Noise Affect Student Learning" (Unpublished Research Paper). For information, write to Carl Glickman, Curriculum and Supervision, University of Georgia, 124 Alderhold Hall, Athens, Georgia 30602.

⁷ Richard Restak, *The Brain: The Last Frontier* (New York: Doubleday Publishing Company, 1979).

midst of activity and interaction. Such data would encourage practitioners to apply research findings on the basis of individual learning characteristics rather than because of generalized, sex differences.

• In Ohio

Bob Ballinger tested his secondary French students for their learning styles. While the responses were being scored, he and a colleague designed whole-class and small-group techniques for teaching the course's objectives. They then asked students to make four individual projects related to the written objectives—but the projects were to reflect how each student learned best. When the teachers received the results of the learning style testing, the projects that the youngsters had designed and completed matched the instrument's learning style diagnoses.

The students' projects were displayed and shared with individuals, pairs, or small groups of classmates. According to Ballinger, "As the test date neared, the physical environment itself became a source of learning and reviewing." He believes that the number of student-developed resources in the room permitted him to increase the amount of French spoken daily. His students achieved extremely well on the examination, and one who had been having problems said, "I'm finally learning this stuff!"

Ballinger's observations confirm two previous studies that demonstrated that (a) students can identify their own learning styles; (b) when exposed to a teaching style that represents the ways they believe they learn, students score higher on tests, fact knowledge, attitude, and efficiency than do those taught in a manner that differs from their style; and (c) it is advantageous to teach and test students in their preferred modalities.⁸ For further information concerning how to teach French through students' learning styles, write to Robert Ballinger, Worthington High School, 300

West Granville Road, Worthington, Ohio 43085.

• In Wisconsin

Focusing on cognitive style mapping (a combination of selected learning style elements and study skills), the Motivation to Learn Center has designed, implemented, and evaluated many programs that provide alternatives for students. Although cognitive mapping is different from the approaches described in the earlier sections of this column, the conclusions drawn by the center's staff are identical: (a) students consistently display differences in learning styles; and (b) academic success is more probable when teaching styles, and methods and environments complement how individuals learn. For additional information concerning studies that verify this data, contact Ron Retzke, Director, Motivation to Learn Center, 6015 West Forest Home Avenue, Milwaukee, Wisconsin 53220.

• In Your State

If you are involved in programs or studies concerned with the identification or treatment of learning style characteristics and if you are willing to share your observations or findings with colleagues, please send us a concise description of what is being done, where, by whom, with whom, with which instruments (if any), and what the conclusions appear to be. Include the name and address of a "Contact Person" for readers who care to obtain additional information.

In subsequent columns we intend to suggest simple experiments that can be conducted by teachers in their classes. Should you choose to become involved in any of the studies, we encourage you to keep us aware of what happens. Synthesized overviews will be included periodically in "Learning: A Matter of Style" to provide feedback to the field and to in-

crease our understanding of individual student learning styles.

If you care to attend conferences or workshops where learning style is the major focus, consider the following:

1. The ASCD Annual Conference in Atlanta, Georgia, will provide: (a) Videotape: "Learning: A Matter of Style," Sunday, March 30, 1980; (b) A special session; and (c) An assembly on learning styles, Monday, March 31, 1980.

2. An Akron University Workshop, "The Whole School Curriculum And Learning Styles," June 20-22, 1980; Contact Angela Bruno, Director, College of Education, Akron University, Akron, Ohio 44325.

3. A St. John's University Conference, "Teaching Students Through Their Individual Learning Styles," July 24-29, 1980, and Workshop, "Teaching Students to Read Through Their Individual Learning Styles," August 7-10, 1980; Contact Rita Dunn, St. John's University, Grand Central Parkway, Jamaica, New York 11439.

⁸ George Domino, "Interactive Effects of Achievement Orientation and Teaching Style on Academic Achievement," ACT Research Report 39 (1970): 1-9; Beatrice J. Farr, "Individual Differences in Learning: Predicting One's More Effective Modality" (Ph.D. dissertation, Catholic University of America, 1971).



Rita Dunn is Professor, St. John's University, Jamaica, New York.

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