

Curry, L. (1987). *Integrating Concepts of Cognitive Learning Style: A Review with Attention to Psychometric Standards*. Ontario: Canadian College of Health Science Executives.

DeBello, T. (1990). "Comparison of Eleven Major Learning Styles Models: Variables, Appropriate Populations, Validity of Instrumentation, and the Research Behind Them." *Journal of Reading Writing, and Learning Disabilities International* 6, 3: 203-222.

Douglas, C. (1979). "Making Biology Easier to Understand." *American Biology Teacher* 41, 5: 277-299.

Dunn, R., J. Beaudry, and A. Klavas. (1989). "Survey of Research on Learning Styles." *Educational Leadership* 46, 6: 50-58.

Dunn, R., J. Bruno, R.I. Sklar, R. Zenhausern, and J. Beaudry. (May/June 1990b). "Effects of Matching and Mismatching Minority

Developmental College Students' Hemispheric Preferences on Mathematics Scores." *Journal of Educational Research* 83, 5: 283-288.

Dunn, R., L. Deckinger, P. Withers, and H. Katzenstein. (1990a). "Should College Students Be Taught How to Do Their Homework? The Effects of Studying Marketing Through Individual Perceptual Strengths." *Illinois School Research and Development Journal* 26, 2: 96-113.

Dunn, R., K. Dunn, and G.E. Price. (1975, 1979, 1981, 1985, 1989). *Learning Style Inventory*. Lawrence, Kans.: Price Systems.

Restak, R. (1979). *The Brain: The Last Frontier*. New York: Doubleday.

Tanenbaum, R. (1981). "An Investigation of the Relationships Between Selected Instructional Techniques and Identified Field Dependent and Field Independent Cognitive Styles as Evidenced Among

High School Students Enrolled in Studies of Nutrition." Doctoral diss., St. John's University (*Dissertation Abstracts International* 43, 68A).

Theis, A.P. (1979). "A Brain-Behavior Analysis of Learning Style." In *Student Learning Styles: Diagnosing and Prescribing Programs*. Reston, Va.: National Association of Secondary School Principals, pp 55-61.

Trautman, P. (1979). "An Investigation of the Relationship Between Selected Instructional Techniques and Identified Cognitive Style." Doctoral diss., St. John's University, Jamaica, N.Y. (*Dissertation Abstracts International* 40, 1428A).

Rita Dunn is Director of St. John's University's Center for the Study of Learning and Teaching Styles, Grand Central and Utopia Parkways, Jamaica, NY 11439.

LANA ORSAK

Learning Styles Versus the Rip Van Winkle Syndrome

A Texas teacher's attendance at an eight-day seminar on learning styles in New York City has had a positive ripple effect on her entire high school.

This is the true story of a middle-aged language arts teacher who had been working rather contentedly at her chosen profession for over 20 years when something happened that totally changed her life as an educator. This change was unsolicited and unexpected.

A Personal Vow

The saga began five years ago, when her principal chose her as one of two teachers to attend a learning style seminar in New York presented by Rita and Kenneth Dunn. Going to New York was in itself something to get excited about for this Texan, but going to another educational seminar after years of attending rather mundane workshops was something to be viewed with skepticism.

However, she dutifully packed her bag and headed east.

During those eight days, she spent hours learning about alternatives to lecture and the importance of identifying

Allowing my students to have choices in how they learned made them more involved in the whole process.

students' learning strengths and weaknesses. During one of the sessions, the presenter said that if Rip Van Winkle came back today, the one thing he would recognize as being unchanged would be a high school classroom. The ironic truth of that statement overwhelmed this teacher, who knew from years of experience that she and her colleagues had taught their classes essentially in the same manner that she, and probably Rip Van Winkle as well, had been taught. With all the wonderful inventiveness and changes taking place today, why had high school teaching remained so static, uncreative, out of step with the rest of the world? From that day on, the teacher from Texas made a personal vow not only to change the way she taught but to spend

the rest of her career as an educator trying to convince fellow teachers that there is a better way to instruct.

Of course, I am the middle-aged language arts teacher whose life was transformed by that trip to New York, and I am still changing as a result of discovering learning styles. I returned to my classroom in the fall, and I *did* teach in a different way. Allowing my students to have choices in how they learned made them more involved in the whole process. Their grades improved dramatically, and they truly became responsible for their own learning. What a difference from my old way of teaching!

I continued to be a "learning styles" teacher for the next two years, returning to New York for more training with the Dunns. In addition, my principal, my colleagues, and I began a network of learning styles teachers in our school. No longer did we walk through the halls of our high school and see only lectures being given to rows of bored students. Instead, we saw active, involved students working in groups, sitting at listening centers, or working with tactile/kinesthetic activities on the floor or at tables. Rip

No longer did we walk through the halls of our high school and see only lectures being given to rows of bored students.

Van Winkle would not come back and recognize this high school!

After three years as a learning styles teacher, I became our school's curriculum coordinator and was able to train teachers in learning styles techniques and to help them in their classrooms as needed. By this time, about a third of our teachers were using some aspects of learning styles in their instruction, and many were what I call "total learning styles teachers." We began giving all entering freshmen the *Learning Style Inventory*. Other districts heard about our success and began sending teachers to visit our classrooms and asking us to offer summer workshops. Throughout the state, we were being recognized as an innovative secondary school.

Two Pilot Programs

As curriculum coordinator, I was in a position to implement learning styles techniques in various pilot programs. One such program was for a group of students who had, for the third time, failed the state's minimum skills test of reading, writing, and math. As juniors, they would have only one more opportunity to pass this test, or they would not receive high school diplomas, even though they had passed all their classes. We formed two reading improvement and math improvement classes to help these 34 at-risk students. Since the strongest perceptual strength of a majority of these students was tactile/kinesthetic, the teachers developed many hands-on activities and frequently used small groups and peer coaching. After eight months, the students attempted one last time to pass the exam in time for graduation. When the eagerly anticipated scores arrived, every student had passed the exam. There was as much excitement that day as if our school had just won the state football championship!

A second pilot program was implemented by our math department. When our state education agency raised the math requirement for high school graduation from two credits to three, many students were required to take Algebra II, traditionally a difficult course for non-math-oriented students because of the abstract thinking re-

The reward for all of us is the satisfaction that our students are learning more successfully than ever before.

quired. By the end of the first six weeks of that year, math teachers identified 34 students whose Algebra II averages were below 50 and who showed no promise of being able to pass the course. Two experienced learning styles teachers in the math department volunteered to pull these students into two classes where only learning styles techniques were employed. Working as a team, they designed tactile/kinesthetic activities for each chapter and, for auditory learn-

Clearinghouse on Learning/Teaching Styles and Brain Behavior

Five years ago, members of ASCD established the Learning/Teaching Styles and Brain Behavior Network as a grassroots approach to connecting research to practice and programs to practitioners. The network publishes the thrice-yearly *Clearinghouse Bulletin*, a directory of practitioners, and a bibliography of related books and audiovisual materials. Network members also sponsor workshop sessions at the ASCD Annual Conference. Membership dues in the network, which has approximately 550 members, are \$10.

For more information, contact the network's facilitator, Kathleen Butler, at (203) 228-3786. Membership correspondence should be addressed to: The Clearinghouse on Learning/Teaching Styles and Brain Behavior, Graduate Education Program, Antioch University Seattle, 2607 2nd Ave., Seattle, WA 98121.

ers, prepared tapes that covered the major concepts. They also studied each student's learning styles profile to determine individual approaches. To ensure that these students were not being given a watered-down course, the students were given the same departmentally prepared six-weeks and semester exams as the other Algebra II classes. At the end of the year, 32 of the 34 students passed the course!

Mission Accomplished

Five years after that transforming summer when I made my vow, I feel a sense of accomplishment. My principal, my colleagues, and I have found a more successful way to teach. Credit also goes to each and every student who so eagerly embraced a better way of learning. The reward for all of us is the satisfaction that our students are learning more successfully than ever

before. Our dropout rate has declined because school is a more interesting and friendly place to be. Together, we have created a secondary school that Rip Van Winkle would not recognize. That school is Corsicana High School in Corsicana, Texas. □

Lana Orsak is Curriculum Coordinator, Corsicana High School, Corsicana, TX 75110.

CAROLYN E. BRUNNER AND WALTER S. MAJEWSKI

Mildly Handicapped Students Can Succeed with Learning Styles

Since teachers at Frontier Central High School in Hamburg, New York, began using a learning styles approach, the number of special education students earning regular high school diplomas has grown dramatically.

At Frontier Central High School in Hamburg, New York, students identified as mildly handicapped are enjoying high rates of success. Indeed, most are now earning high school diplomas based on their unprecedented attainments on both local examinations and New York State Competency Tests. The secret of their success is a well-researched, faculty-developed curriculum that takes into account the needs and strengths of individual learners.

Laying the Foundation

The groundwork for the program was laid over the summer of 1987. During those months, six special education teachers and a coordinator worked together to develop units of instruction in social studies, mathematics, and language arts for special education students in grades 9-12 (Shands

and Brunner 1989). Our goal was to provide these students with a program closely aligned to regular education.

Since the students would be expected to cover additional, more difficult content, the project writers wanted to include many helpful instructional strate-

Our goal was to provide special education students in grades 9-12 with a program closely aligned to regular education.

gies. The learning styles model developed by Rita and Kenneth Dunn (1978) appeared best suited to our needs. Five stimuli—environmental, emotional, sociological, physical, and psychological—serve as the framework for the model's 21 elements.

We were, of course, excited about the prospect of improving our students' academic achievement by teaching them in ways they learn best (Dunn et al. 1989), but we also wanted them to learn new and difficult material at a faster pace with increased retention. And, as practitioners, we wanted to reduce discipline problems. Tough nut to crack, but the reports on the model were so strong, we thought we'd try it.

Beginning in the summer of 1987, we provided staff development in learning styles for special education teachers and administrators, including

Copyright © 1990 by the Association for Supervision and Curriculum Development. All rights reserved.