

## ■ DOES THEORY TRANSFER TO PRACTICE?

Reading theory governs a teacher's instructional decisions about reading, right? Wrong. At least that's what recent research on teaching indicates. Most teachers work under conditions and pressures that make it difficult, if not impossible, to put abstract theories and conceptions into practice.

Researcher Gerald Duffy found that most teachers base their instructional decisions on their students' abilities, commercial reading materials, and the need for maintaining activity flow. "In real classrooms," says Duffy, "teachers focus on activities rather than objectives."

This may be because prospective teachers are not taught enough about instruction to implement their theories of reading. Not having a way to implement their theories, teachers depend on basal texts for instructional ideas.

What can be done? Reading educators must give prospective teachers more instructional help if teachers are to effectively apply reading theories to classroom instruction. Duffy says that they must educate teachers to deal with theory within the instructional realities of the classroom. Failure to do so may give rise to explicit teaching scripts within which theory is embedded.

For more details, send for IRT Research Series No. 98, *Theory to Practice: How Does it Work in Real Classrooms?* by G.G. Duffy, \$2.50.

To order, write to: IRT Publications, 252 Erickson, Michigan State University, East Lansing, MI 48824. Michigan residents should add 4 percent sales tax.

# Learning Styles

RITA DUNN AND  
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## ■ SCHOOLING STYLES

Robert Fizzell's Schooling Styles Inventory assesses variables in cognitive style, time structure, and social environment needs associated with success or failure in school programs.

According to Fizzell, individualizing through alternative programs avoids the

conflicts and demands on the teacher that occur when many students with different learning styles are grouped in one setting.

Fizzell claims that success in school depends on the right match of learning and school styles, plus an adequate academic self-concept. He suggests that students choose from as many as 20 schooling structures varied in terms of their organization of time, social structure, and instructional methods designed to meet combinations of learning style variables.

Because of the multidimensional and dynamic nature of learning style, he stresses that students have a "predominant mode" but should be allowed flexibility to participate in more than one form of schooling.

Group Instructional programs needed are:

1. Large traditional, regular schedule
2. Large traditional, flexible schedule
3. Small traditional, regular schedule
4. Small traditional, flexible schedule
5. Self-contained classroom
6. Open classroom.

Peer Study programs needed include:

7. Liberal arts, segmented time (bells ring, classes change)
8. Liberal arts, concentrated time
9. General studies, segmented time
10. General studies, concentrated time
11. Special studies.

Fizzell suggests self-instructional programs institutionalizing traditionally non-institutionalized activities:

12. Personalized self-instruction
13. Self-Instruction—strong peer interaction
14. Self-Instruction—impersonal
15. Teacher-directed programmed instruction
16. Machine instruction.

And, Tutorial programs differentiated by social environment preferences:

17. Personalized
18. Strong peer interaction
19. Impersonal
20. Peer tutoring.

Fizzell is currently conducting a major research study continuing his work of ten years.

For further information contact Robert L. Fizzell, Department of Educa-

tional Foundations, Western Illinois University, Stipes Hall 456, Macomb, IL 61455.

## ■ MATH MAP MODIFIED

The Cognitive Style Map has been modified for mathematics in grades four to six. This elementary math map has 56 items, which are simply and easily scored, covering theoretical symbols and their use, qualitative symbols, cultural determinants, and modalities of inference. For more information contact Iris M. Carl, Mathematics Specialist, Houston ISD, Houston, TX or Howard L. Jones, Curriculum and Instruction, University of Houston, Houston, TX 77004.

## ■ SCHOOLING STYLES MATCHED

Conceptual matching was the basis for developing four learning environments at Yucaipa High School in California under the auspices of an ESEA Title IV-C grant.

Director John Porter narrowed the school styles to Lecture-large group instruction; Traditional teacher-directed instruction; Student-directed independent study; and an Audio-Tutorial instructional environment. Subsequently the first and second merged leaving three distinct schooling styles.

As the program developed the conceptual matching test was supplemented by parent-teacher-student input which was found to be at least as reliable as the test results.

A great deal was learned during the course of the project involving materials development, staff support, and teacher selection procedures that supports efforts to diversify learning environments. Beyond the basic teacher characteristics of liking students, having high energy, and knowledge of subject areas common to all good teaching, the need for identifying teachers who are inclined toward doing the things that are needed in a given school style is important.

For more information contact Lynn Pletcher, Principal, Yucaipa High School, 33000 Yucaipa Blvd., Yucaipa, CA 92399; or the Project Director, John Porter who is now Principal at Chino High School, 5572 Park Pl., Chino, CA 91710.

## ■ PRIMARY CHILDREN'S STYLES EXPLORED

*Early Years*, a national early childhood journal, devoted its January and Febru-

ary 1982 issues to examining the learning style characteristics of very young children and to practical methods for teaching them through their personal styles.

In the November 1981 issue, Mary Anne Raywid urged that alternative schooling—based on learning styles—be introduced at primary levels. The December 1981 issue carried Shirley Griggs's descriptions of "Counseling Approaches With Young Children to Respond to Their Individual Learning Styles."

Reference: Patricia M. Broderick, Associate Publisher, *Early Years*, 11 Hole Lane, Box 1266, Darien, CT 06820.

#### ■ LEARNING STYLE AND BRAIN BEHAVIOR

An interview with Richard Restak, a leading brain researcher, revealed the sex-linked differences in brain functioning and how sex hormones alter behavior. He also discussed the Johns Hopkins study concluding that males' superiority in mathematics is related to spatial adaptability, the ways girls are biologically better equipped for living than boys, Jerre Levy's identification of the right-hemisphere specializations of men (spatial relationships) and the left-hemisphere specializations of women (language and rote memory), and the weighted discrimination of certain "standardized" tests such as the National Merit Scholarship Examination.

Reference: Sally Banks Zakariya, "His Brain, Her Brain: A Conversation with Richard Restak," *Principal* 60, 5 (May 1981): 48-51.

#### ■ SHEDDING LIGHT ON ACHIEVEMENT?

Research shows a statistically significant interaction at better than the .01 level between students' speed and accuracy scores on a standardized reading comprehension test and their preferences for either a bright or low light environment.

Using an experimental design, Krinsky identified the lighting preferences of an entire district's fourth-grade students and exposed those with extreme preferences to two different classrooms—one controlled for very bright light and the other for natural, low light. Students were taught and tested in both matched and mismatched situations.

No significant differences were evidenced between those who preferred ei-

ther bright or low light. What was significant was that all the youngsters who were correctly matched with their preferred level of illumination achieved statistically significant higher scores than their unmatched classmates (.004).

Reference: Jeffrey Stephen Krinsky, "A Comparative Study of the Effects of Matching and Mismatching Fourth-Grade Students With Their Learning Style Preferences for the Environmental Element of Light and Their Subsequent Reading Speed and Accuracy Scores," Ed.D. dissertation, St. John's University, 1981.

#### ■ MODALITY DEVELOPMENT: IS IT SEX, AGE, OR MATURATION RELATED?

Messer used the *Edmonds Learning Style Identification Exercise* (ELSIE) to obtain scores from equal numbers of randomly selected 10- to 14-year-old male and female students in Wyoming public schools. A three-way analysis of variance was conducted where sex and age were compared in relation to obtained ELSIE scores. The data revealed significant differences at the .01 level for two of the four ELSIE classifications: (1) Males had visual images of an object or activity significantly more times than females and (2) females had a "fleeting" kinesthetic reaction significantly more times than males.

No significant differences were evidenced among students at any age studied, verifying that educators increasingly should emphasize modality identification and teaching to varied perceptual strengths because of the wide variety of such differences in each class.

Reference: Phyllis Lynn Messer, "A Study of the Relationship of Sex, Age, and Sensory Modality Learning Styles of Ten- to Fourteen-Year-Old Students in Selected Wyoming Public Schools," Ph.D. dissertation, University of Wyoming, 1979.

#### ■ IMPACT OF CHRONOBIOLOGY

By comparing students with normal versus "deviating" time of day preferences ("circadian" patterns), Biggers demonstrated that the conventional school day fosters a built-in bias in favor of morning-active students—especially when compared with the achievement potential of youngsters who prefer other times of day.

The underlying premise of this study is that task efficiency is related to each

person's daily temperature rhythm or "chronobiology."

Reference: Julian A. Biggers, "Body Rhythms, the School Day, and Academic Achievement," *Journal of Experimental Education* 49, 1 (Fall 1981): 45-47.

#### ■ GIFTED STUDENTS LIKE TEACHING GAMES

Renzulli and Smith's *Learning Style Inventory* was administered to 636 fourth through sixth grade students in a rural North Florida gifted program. At the .01 level of significance, strong preferences were indicated for the following nine ranked instructional alternatives: (1) Teaching Games, (2) Independent Study, (3) Peer Teaching, (4) Programmed Instruction, (5) Simulations, (6) Projects, (7) Discussions, (8) Lectures, and (9) Drill and Recitations.

Gifted students ranked last those instructional styles that rely on the auditory sense: drill and recitations, lectures, and discussions. The most preferred instructional strategies of the gifted youngsters were Teaching Games followed by Independent Study.

Reference: Frances R. Wasson, "A Comparative Analysis of Learning Styles and Personality Characteristics of Achieving and Underachieving Gifted Elementary Students," Ed.D. dissertation, Florida State University, 1980.

#### ■ CONSTRUCTING TACTILE/KINESTHETIC MATERIALS EASILY

Electroboards are gamelike, tactile instructional resources wherein questions are posed in one section and answers placed in another. Students are encouraged to match the two correctly by placing electrified points on each of the two related items. When the choices are correct, a bulb lights up. For example, an electroboard on the Parts of Speech could include the words: noun, verb, adjective, adverb, preposition, and article on one side, and examples of them on the other. Students would be encouraged to match each part of speech with the sample that represents it.

Easy to put together kits to make electroboards have been prepackaged for sale through Lamtex, Inc., 1182 Salway S.W., North Canton, OH and can be purchased for \$4 each.

#### ■ LEARNING APPROACH FOR THE CULTURALLY "DIFFERENT" QUESTIONED

Ramirez and Castenada reported that

children of different cultural backgrounds function poorly in conventional American schools because of the contrast between family influences and our educational system. However, 150 socio-economically low, Mexican American first graders were divided into two groups: one taught through the ethno-cultural Ramirez-Casteneda model which emphasizes identified cultural characteristics and advocates small-group instruction and the other through an individualized approach directed at mastering specific instructional objectives. A silent reading test determined both initial achievement and retention after 15 days.

In every aspect, the youngsters exposed to the Ramirez-Casteneda approach performed *less* well than those taught in the individualized, objectives-based program.

Reference: A. Alan Cohen and Samuel Rodriguez, "Experimental Results That Question the Ramirez-Casteneda Model for Teaching Reading to First Grade, Mexican Americans," *The Reading Teacher* (October 1980): 12-18.

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## Education Resources

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NANCY CARTER MODRAK

### ■ GRADING STUDENT WRITING

Grading student papers is a challenge for any teacher, regardless of subject area or grade level. A new booklet from the National Council of Teachers of English, *Measure for Measure: A Guidebook for Evaluating Students' Expository Writing*, offers clear procedures for making the evaluation of student papers a rational process, focused on the student's development as a writer.

The book was developed and tested in the field, prepared by a team of English teachers in the Berkshire County, Massachusetts, public schools. It covers evaluation techniques with emphasis on holistic scoring, and offers guidelines for helping students see expository writing as a step-by-step process. It enables

teachers faced with heavy paper loads to increase their efficiency and effectiveness. Using examples of student writing, the authors show teachers how to avoid discouraging the writer and how to explain what the student can do to improve problem areas. It helps teachers of all subjects and grades to focus on the most significant features of student papers and to offer comments and criticism that directly respond to student needs.

A 32-page paperback, *Measure for Measure* is available for \$3 (\$2.50 for NCTE members) from NCTE, 1111 Kenyon Rd., Urbana, IL 61801. Phone: (217)328-3870; stock number 30976.

### ■ MATH IN THE REAL WORLD

The Agency for Instructional Television is distributing a new VideoKit on math for 9th and 10th graders to help them see the connection between math and life. *Math Wise* encourages general mathematics students to use their math skills at home, on the job, and in the marketplace. Using documentary and dramatic segments, the series helps students explore mathematics skills and concepts and their application to everyday problems.

The *Math Wise* VideoKit includes a teacher's guide and four videocassettes containing twelve 15-minute programs organized into four modules based on the mathematical processes of measuring, comparing, locating/interpreting, and predicting. Each program focuses on a general mathematics topic, such as formulas, proportion, probability, and statistical sampling, and illustrates problem-solving techniques such as drawing a diagram, looking for a pattern, checking assumptions, and using a resource.

The *Math Wise* series was developed by 25 state and provincial education agencies under the management of AIT (a nonprofit American-Canadian organization) with additional support from Exxon Corporation and Shell Companies Foundation Inc.

The VideoKit may be purchased for \$475 from AIT. For further information, contact Sylvia Straub or Randolph Pitzer, Agency for Instructional Television, Box A, Bloomington, IN 47402. Phone: (800)457-4509.

### ■ WHAT IT'S LIKE TO BE GIFTED

Approximately three million American students are classified as gifted and talented. In a 1978 publication sponsored

by the American Association for Gifted Children (AAGC), *On Being Gifted*, 20 gifted young people describe how "giftedness is a way of thinking, a style of thought, and an attitude." They present vignettes of their growing up years and offer suggestions for educational enrichment programs.

*On Being Gifted* is available at local book stores for \$7.95, or may be purchased for \$5.95 per copy from AAGC.

A companion piece to *On Being Gifted* is a hot-off-the-press resource book, *The Gifted Child, the Family, and the Community*, written by members and associates of AAGC. The book, addressed to parents, community leaders, librarians, artists, and others, includes articles on the needs of the gifted, the anxieties faced by their parents, gifted children and the public library, and more.

Copies of *The Gifted Child, the Family, and the Community* may be purchased from local book stores for \$17.50, or for \$14 each from AAGC, 15 Gramercy Park, New York, NY 10003.

### ■ DECLINING ENROLLMENT

While the number of high schools could continue dropping until the year 2000, K-8 enrollment may bottom out in 1984 and begin to rise again in 1986, according to a recent report by the American Association of School Administrators (AASA). *Declining Enrollment—Closing Schools: Problems & Solutions* takes a close look at possible answers to the problems associated with declining enrollment in elementary and secondary schools, and emphasizes what school administrators have been learning over the past ten years in dealing with the decline.

The report explains why expenses do not rise and fall in proportion to enrollments, how schools can improve the services they provide to students who require individualized attention, and how some school districts have managed to improve their services by reorganizing. The four-year high school, the report states, is regaining popularity. In Seattle, for instance, two-year middle schools were created when junior highs were closed and ninth graders were moved to senior high schools. Most important, school administrators have learned the value of involving the community in planning a response to declining enrollment. When citizens can understand the problem and help seek

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