

orientation toward the past and present) to the needs and limitations of futures research. A nondirective, non-judgmental, loosely structured, interactive, open-ended approach is used in interviewing a member of a different culture. The substance of the interview stresses present perceptions and preferences held by that culture about its possible alternative futures.

EFR uses a scenario-building approach for constructing an integrated and holistic picture of another culture's aspirations and expectations. The technique is carefully designed to strike a balance between "anything goes" Utopian fantasizing and restrictive visions based on limited views of what short-term changes are possible. In practice, it provides interesting insights into the normative systems of different cultures and also gives a better sense than traditional ethnographic methods of how cultures approach the issue of change.

EFR has been used by Textor and his students to diagnose educational needs in Brazil. This project is discussed in more detail in the *Journal of Cultural and Educational Futures* 1, 3 (October 1979).

Textor will be presenting some of his EFR work and its implications for education at the American Anthropological Association meeting in Washington, D.C., in early December. For further information, contact Robert Textor, School of Education, Stanford University, Palo Alto, CA.

## Learning Styles

RITA DUNN

■ THE FOLLOWING New resources will assist in identifying learning styles and/or prescribing methods, materials and programs on the basis of diagnosis:

Walter B. Barbe and Raymond H. Swassing, *Teaching Students Through Modality Strengths: Concepts and Practices* (Columbus, Ohio: Zaner-Bloser, Inc., 1979). This may be the first book that provides a strong conceptual basis for teaching students through their perceptual (auditory/visual/tactile/kinesthetic) strengths, and then suggests ways in which to

do so in the classroom. Its theoretical framework is supported by the Carbo study reported in last month's column and by newly emerging data in the field. Although it responds to only one of 23 learning style elements, it is well worth reading.

Patricia Kirby, *Cognitive Style, Learning Style, And Transfer Skill Acquisition* (Columbus, Ohio: The Ohio State University National Center for Research in Vocational Education, 1979). \$7.50. This document reviews and synthesizes what is currently known about cognitive and learning styles and identifies and compares various inventories for diagnosing learning styles to assist readers in selecting a learning style approach.

"Tell Me About Learning Styles," John D. Firestone Associates, 119 West Waterloo Street, Canal Winchester, Ohio 43110. \$22.00 including postage and handling.

This filmstrip and cassette tape explore the concept of learning style as a basis for understanding how students differ and how to respond to those differences in the classroom. Developed by Barbara S. Thomson of Ohio State University, this audiovisual presentation is appropriate for K-12 teachers and administrators as well as parents, students, and higher education classes.

■ PALS (PROMOTING Action on Learning Styles), a K-12 group of teachers and administrators in Ohio, has designed an instrument to monitor student reactions to the information they receive concerning their own learning styles.

A one-page survey that includes six easy to understand questions, the assessment ends by asking youngsters to check the learning style elements that characterize them as individuals. If you want a copy of the PALS' Student Awareness Survey write to: David P. Cavanaugh, Principal, Worthington High School, 300 West Granville Road, Worthington, OH 43085

■ PSYCHOLOGIST Armin Thies believes that the brain tends to determine an individual's learning style characteristics and ultimately relates them to classroom performance. According to Thies, there is a neurological basis for the environmental, emotional, physical, and psychologi-

cal stimuli of learning style, but his hypotheses is that the sociological elements have no apparent brain-behavior components.

■ IN AN ED.D dissertation at Indiana University, 1979, Ronnie W. Copenhaver revealed that student's learning styles are consistent across subjects. In other words, within a given time span, a youngster learns through the same approach in English as in math. That investigation also showed that: (1) students develop significantly more positive attitudes toward a subject when their learning styles are similar to their teacher's teaching style; (2) a wide range of learning styles exists among the students in a given class; and (3) many different teaching styles are necessary if teachers are to respond effectively to the diversity of learning styles among their students.

This year, at the University of Nebraska, Elsie Cafferty tested all of the teachers, sophomores, and juniors in one high school and matched 1,689 pairs of teachers and their students. Four groups then were formed on the basis of the degree to which the styles of the students and teachers matched. Mean grade point averages were computed and subjected to analysis of variance.

The finding was that the greater the match between teaching and learning style, the higher the grade point average. As the degree of congruence decreased, the grade point average also declined. *The more closely the students' styles matched their teachers' styles, the better the youngsters achieved academically.*

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