Research on Teaching

JANET EATON

DATA BOX HELPS TEACHERS USE TEST RESULTS

Teachers don’t always make full and effective use of test scores and other student assessment measures. This is often simply because they haven’t been trained to do so. Researchers at the Institute for Research on Teaching have identified concepts teachers need to know in order to use the information available and have developed materials to help teachers learn those concepts.

Those materials are contained in what the group calls The Data Box. The Data Box “is our response to completing the link between assessment, planning, and instruction,” said Project Coordinator Herbert C. Rudman.

The Data Box is a four-compartment container about the size of a briefcase. The first compartment contains a set of 5 x 8” vignette cards. The second compartment contains 37 documents typically available to teachers. A technical manual and an interpretive manual are in the third compartment; a memo pad is in the fourth.

A teacher uses The Data Box by first picking a vignette card. A typical vignette might be “Getting Ready to Meet the New Class.” The vignette card asks the teacher such questions as, “What information might you use to better know your students before the first day of class?” and “How would you organize that information?”

After the teacher has responded to the questions, he or she would turn to the vignette’s corresponding section in the interpretive manual, which identifies the authors’ approach to the questions and the rationale behind them. “There is no one correct solution,” said Rudman. “The important thing is that teachers have a good rationale for their responses.” By working through the vignettes, teachers should become more familiar with the assessment materials available to them, and more confident about using them.

The 37 documents in The Data Box are representative of those to which teachers are likely to have access. They have been classified into three categories to facilitate their use: characteristics dealing with (1) the individual pupil (for example, a child’s previous grades), (2) the school and school system (class means on the SAT), and (3) the home and family (child custody documents).

Each vignette asks the teacher to choose among these documents those that would be pertinent to the questions in the vignette.

The Data Box technical manual includes chapters dealing with the rationale behind the box and its use. It details the history of the project and gives instructions for using the box as a resource tool for teachers, in faculty meetings, and in statewide inservice training programs. It also contains a brief synopsis of the literature review completed by the research team prior to the development of The Data Box. (The literature review is available, for $7.50, as IRT Research Series No. 75, Integrating Assessment with Instruction: A Review, 1922–1980, by H. Rudman and others. Ordering information follows.

The Data Box will be published by the Psychological Corporation. For further information about The Data Box, write to Herbert C. Rudman, 405 Erickson Hall, MSU, East Lansing, MI 48824.

SOME STUDENTS WRITE A LOT

The best way to learn to write is to write. When newspaper headlines declare today’s children cannot write, one wonders how much writing goes on in school. In an NIE-funded study, Susan Florio and Christopher Clark of the Institute for Research on Teaching found that much writing in elementary and middle schools is not readily apparent because it is not done as formal writing assignments.

Key among the functions writing served, note Florio and Clark, were knowing oneself and others, occupying free time, participating in community, and demonstrating academic achievement. By looking at writing that serves these functions, as well as formal writing assignments, it was apparent that there is, in many classrooms, a lot of writing going on.

Awareness of this fact and sensitivity to the uses of writing in everyday classroom life afford teachers varied opportunities to plan for writing and its instruction, and to assess the many facets of student writing competence.

For a full report of the study, send for IRT Research Series No. 104, Understanding Writing in School: A Descriptive Study of Writing and its Instruction in Two Classrooms (full report, $14, executive summary, $2.75), by C. M. Clark and others. Ordering information follows.

HOW TEACHERS SPEND LANGUAGE ARTS TIME

“Back to the basics,” is the rallying cry of many these days, but is this movement affecting classroom instruction? IRT researchers Laura Roehlker, William Schmidt, and Margret Buchmann found that it is in some elementary school classrooms they have observed.

Teachers in those classrooms allocated the bulk of their instructional time to the most basic of the basic skills; reading and language arts took up 38 to 53 percent of the typical school day. Mathematics followed, taking 12 to 24 percent of the day. From 6 to 21 percent of instructional time was spent in art, music, and physical education. The observed teachers allocated little or no time to science and social studies. Non-instructional time in the classrooms ranged from 27 to 42 percent.

Within language arts instruction, time spent on written composition accounted for 0 to 40 percent of the total time. Time spent on oral communication was from 4 to 39 percent. From 2 to 61 percent was the range for mechanics of writing.

Although reading is usually considered part of language arts, the researchers looked at it separately because teachers emphasize it so heavily. Teachers in this study allocated from 10 to 33 percent of their total instructional time to reading.
These variations dramatically illustrate the considerable autonomy exercised by elementary school classroom teachers. They also show little agreement among the observed teachers on what to emphasize.

For more information, send for IRT Research Series No. 66, How Do Teachers Spend Their Language Arts Time? by L. Roehler and others, $2.75. Ordering information follows.

WHAT ARE IMPROVING SCHOOLS LIKE?
Are changes in pupil achievement profiles related to changes in schools? Wilbur Brookover and Lawrence Lezotte looked at schools in which student achievement was declining or improving to answer that question and came up with ten major findings.

1. The staff of the improving schools stressed the importance of basic reading and mathematics objectives far more than did the staff of the declining schools.

2. The staff of the improving schools believed that all of their students could master the basic objectives. Staff in the declining schools thought their students incapable of mastering the basic objectives.

3. Staff of the improving schools were more likely to believe their students would complete high school or college.

4. Staff of the improving schools were more likely to assume responsibility for teaching basic reading and math skills and were more committed to doing so. Staff of the declining schools tended to place this responsibility on parents or students.

5. Teachers in the improving schools spent more time in direct reading instruction.

6. In the improving schools, the principal was more likely to be an instructional leader, be more assertive in his/her instructional leadership role, be more of a disciplinarian, and assume responsibility for evaluation of student achievement of basic objectives. Principals in the declining schools were more permissive, emphasized informal, collegial relationships with teachers, and put more emphasis on public relations than on school effectiveness.

7. The staff of improving schools were more willing to hold themselves accountable for student learning. They were, for example, willing to view standardized test scores as a measure of their effectiveness.

8. Generally, teachers in the improving schools were less satisfied than teachers in the declining schools, who seemed more compliant.

9. While there were no clear-cut differences in parent involvement, the improving schools reported more parent-initiated involvement than the declining schools.

10. The improving schools generally emphasized neither paraprofessional staff nor compensatory education; declining schools made more use of these services and reported more emphasis on programmed instruction.

For further details, send for IRT Occasional Paper No. 17, Changes in School Characteristics Coincident with Changes in Student Achievement, by W.B. Brookover and L.W. Lezotte, (S5; executive summary, $1).

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Learning Styles

RITA DUNN AND NANCY RECKINGER

PERSONALITY STYLE/CLASSROOM CONDITIONS IMPORTANT
Learning behavior depends on a student's personality style and his or her classroom environment and they need to be viewed as mutually dependent.

This is the underlying assumption of a new book by Keith Golay called, Temperament Styles and Learning Patterns: A Systematic Guide to Maximizing Student Learning. He has also devised the Learning Pattern Assessment, an instrument for identifying a student's learning pattern.

Golay takes the position that a student is not a random collection of character traits such as aggressiveness, modesty, ambition, shyness, or cooperativeness, with each taking an independent course. Nor does a student act in empty space, but in an environment that has a daily rhythm of its own. It follows then that we must identify a student's pattern of learning and determine the conditions of the classroom environment that interact most productively with that pattern.

Golay applies Keirsey's Temperament Theory of personality to understanding the differences in learning behavior. He identifies four basic learning patterns: the Actual-Spontaneous, the Actual-Routine, the Conceptual-Specific, and the Conceptual-Global.

A coherent and comprehensive portrait is given for each of the patterns, specifying the most effective instructional methods for each pattern, the curriculum content each type prefers, and the most effective way to present specific subjects to each type of learner. Golay describes how to create a classroom atmosphere that will maximize each learner's receptivity, cooperation, and enthusiasm for learning. He also discusses how to use classroom space to accommodate each learning pattern, and the variety of methods and materials needed for inspiring each student's finest learning achievement.

For additional information contact Keith Golay, Department of Counseling, School of Human Development and Community Service, California State University, Fullerton, CA 92634.

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TEACHING BOTH SIDES OF BRAIN STRESSED
Learning Style theory can lead us astray if we focus totally on separate parts. A Holistic Education Network has, therefore, been organized by California educators who want to see schools balance their heavy left-brain orientation with more right-brain activities to achieve whole-brain learning.

In lieu of a conference this year, the Network sponsored monthly sessions by prominent specialists including founder Anastas Harris' overview of the idea of holistic education, Maureen Murdock on multisensory approaches to whole-brain learning, George Brown on confluent education, Carol Austin on the art teacher as nurturer of the emerging scientist, Beverly Galyean on the brain and holistic teaching methods, Sondra Borenstein on holistic approaches to the basic skills, Marilyn Ferguson who wrote The Brain Revolution and the Aquarian Conspiracy on transforming traditional education, and Jack Canfield on the inner classroom.
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