

DO SCHOOLS NEED IPI? NO!

RODNEY TILLMAN*

IN DECEMBER 1967, two publications arrived in the same mail delivery. One, *Education U.S.A.*, featured as its lead article a description of the Individually Prescribed Instruction (IPI) program under way in the Oakleaf Elementary School. It was described as "the nation's first successful operation of individualized instruction on a systematic, step-by-step basis throughout an entire school program." An explanation of the difference between this program and today's regular school is reported as:

Pupils are working on their own. The second and third grade reading class of 63 pupils, for example, is using a learning center and two adjoining rooms. Two teachers and the school librarian act as coordinators and tutors as the pupils proceed with the various materials prepared by the school's teachers and IPI's developer, the Learning Research and Development Center at the U. of Pittsburgh. Each pupil sets his own pace. He is listening to records and completing workbooks. When he has completed a unit of work, he is tested, the test is corrected immediately, and if he gets a grade of 85% or better he moves on. If not, the teacher offers a series of alternative activities to correct the weakness, including special individual tutoring. There are no textbooks. There is virtually no lecturing by the teacher to the class as a whole. Instead, she is busy observing the child's prog-

ress, evaluating his tests, writing prescriptions, and instructing individually or in small groups of pupils who need help.¹

I was pondering the underlying assumptions of the IPI approach reported, as I continued opening the mail, which also included the 1967 revision of *A Public School for Tomorrow* by Marion Nesbitt. There I read:

The elementary school based in humanism which is now emerging from the post-Sputnik years and hopefully will flourish, will first of all be characterized as a good place for children to live and learn and grow, a place that is warm and accepting of human hopes and human frailties, a place where learning is stimulating and challenging, recognizing that facts are for the illumination of ideas, a place where there are values and ideals toward which one strives, a place where one always holds out hope, knowing that to despair of a child is to make him desperate.

The school staff will devote time and energy to creating an environment in which search, inquiry, and thinking can take their place as truly fundamental concepts from which

¹ "Experiment Remaking Face of Education." *Education U.S.A.*, December 11, 1967.

* Rodney Tillman, Dean, School of Education, George Washington University, Washington, D.C.

"I find it difficult to accept the IPI approach as individualized when it equates individualization to a variable pacing arrangement."

broad realms of knowledge are developed. In this process, discussion of ideas will be emphasized. Question-and-answer learning will become secondary since such an approach must of necessity narrow the curriculum to a limited number of facts. When mainly right answers are rewarded, it is sometimes disastrous for a child to make a mistake. On the other hand, discussion is a dynamic verbal process whereby insights are exchanged, issues are clarified and problems are solved. At its best, discussion is a process by which the human spirit is lifted and refreshed as minds touch each other and allow themselves to be influenced for the better.²

"Where Students Are"

I found these two descriptions both encouraging and disturbing. General acceptance of the idea that we need to recognize individual differences and "take students where they are" is encouraging. It was disturbing to me that the approaches to dealing with individual differences seemed to be based on such differing beliefs about learners, teachers, and the learning process. It is my belief that schools need instructional programs based upon the model as described by Nesbitt, not the IPI model.

First, I would question that schools (in general) "need" any program which is still ephemeral and practically impossible to describe. It is impossible to describe the "up-to-date" operation of the IPI model. In October 1971, William W. Cooley, Co-director of the Learning Research and Development Center, University of Pittsburgh, gave—to deans of schools and colleges of education attending a seminar at the IBM center at Endicott, New York—the reprints, "The Computer and Individualized Instruction"³

² Marion Nesbitt. *A Public School for Tomorrow*. New York: Dell Publishing Company, 1967. p. 150. © 1953 Harper & Brothers.

³ William W. Cooley and Robert Glaser. "The Computer and Individualized Instruction." *Science* 166: 574-82; October 31, 1969.

and "Computer Assistance for Individualized Education,"⁴ papers which describe IPI. Cooley commented: "I no longer believe a lot of what is said there" and "Look at this as a Model T." He identified with IPI two kinds of activities—highly structured and exploratory. He indicated that there is need for much more work in the "exploratory component—open-ended questions." Including open-ended questions undoubtedly will improve the actual operation of the IPI program in the schools. However, it is my opinion that many of the schools now operating an IPI program are doing so with a "pre-Model T" version. Also, from a practical standpoint, it would be impossible, in a large number of schools, to initiate versions beyond the "Model T," as these latter versions require considerable expenditures for initial computer installation and for maintenance. I do not believe a school district should make a commitment which binds it to an unproven approach.

It is not, however, this practical operating principle, nor the financial consideration necessary for a truly effective implementation of IPI, that leads me to oppose this approach for schools. It is the underlying beliefs associated with the IPI approach. The expectations of teachers and learners and the views regarding learning held by the designers of IPI lead me to my position regarding this approach. These views and expectations have remained essentially the same regardless of the manner of delivery of the program (computer or non-computer).

The actual name of the program leaves me with concern. Usually we associate prescriptions with sickness, and while it may be helpful to "prescribe" for those unable to function in a normal manner, the prescription approach for *all* children leaves much to be desired. With students, as with all people,

⁴ William W. Cooley. "Computer Assistance for Individualized Education." *Journal of Educational Data Processing* 7: 18-28; 1970.

there is need for the learner to be involved in determining that which is to be learned. Even though recent modifications of the IPI program have increased opportunities for students to make choices, their involvement still falls far short of desirable cooperative procedures in learning—procedures which were in force in many schools in the pre-Sputnik years.

From the early reports in *Education U.S.A.* to more recent descriptions, the main functions of the teacher in IPI have remained: (a) writing prescriptions for courses of study; (b) diagnosing student difficulties; and (c) tutoring individuals and small groups of students.⁵ These I cannot accept as the main functions of teachers. To designate these as their main functions is inconsistent with the body of research regarding teaching functions which has been produced in the past decade. Gertrude M. Lewis states

⁵ Cooley and Glaser, *op. cit.*, p. 579.

that a reader of the research studies relative to the teaching act is "impressed with the agreement in their findings, particularly as related to teacher-student participation, teaching and the self-image of children, liking for school and general friendliness, and achievement."⁶ Some observers have reported that teachers find it hard to accept a secondary role for themselves as is necessary in the IPI program. Some have also equated the teacher's role in an IPI program to his role in a "child-centered" program.⁷

In my opinion, these factors are not equivalent. The IPI program is essentially based on a "what they should be taught" approach, while a child-centered approach is based on "observations of how children learn."

⁶ Gertrude M. Lewis. *The Evaluation of Teaching*. Washington, D.C.: American Association of Elementary-Kindergarten-Nursery Educators, National Education Association, 1966. p. 19.

⁷ Carl C. Fehrle. "A Look at IPI." *Educational Leadership* 28 (5): 480-83; February 1971.

CURRICULAR CONCERNS in a Revolutionary Era

Readings
from
EDUCATIONAL
LEADERSHIP

Here is a panorama of curricular concerns etched in the fires of an insurgent period. This new book from ASCD focuses on instruction in today's schools. The two poems and 66 articles in this volume move in natural sequence from the very personal through the home, the school, and the community, to the national and international scene.

The concerns examined here do not lend themselves to ready-made solutions. On the contrary, they underscore the importance of generating new understandings rather than searching for magic formulae. This book is for preservice and in-service use.

300 pages, heavy-duty sewn binding

Stock No.: 611-17852

Price: \$6.00

Order from:

Association for Supervision and Curriculum Development
1201 Sixteenth Street, N.W., Washington, D.C. 20036

In one, success comes from the teacher's skill in following the program. In the other, success comes from his professional observations of the student and the creative use of time, space, and available resources to enable the fullest development of the learner's potentials.

Hang-ups of IPI

Within the model itself, there are three other factors which I consider "hang-ups" of IPI. These are: (a) the strong emphasis on sequence; (b) the validity placed on diagnostic tests; (c) the determination of 85 percent correct responses as a major criterion for determining success. There is much experience, research, and expert opinion to refute heavy reliance on any of these as "near absolutes."

The debate regarding sequence has been around for many years. For many students, carefully sequenced learning has been successful; however, most of us know of many exceptions. A thoughtful discussion of this topic is found in Alice Miel's statement, *Sequence in Learning—Fact or Fiction*.⁸

I favor the position that sequence resides within the student and that the teacher's role is to provide a wide range of learning opportunities which will enable the student to become successful. Many desirable learning opportunities cannot be prestructured into a carefully controlled sequence. I find it difficult to accept the IPI approach as individualized when it equates individualization to a variable pacing arrangement.

Regardless of the quality of the program and the manner delivered—workbook, worksheet, or computer—flexible timing is only one of many factors necessary in individualizing instruction. I believe that associated with sequence and learning is the factor of motivation. The degree of student motivation, and other differences, may require students to undertake varied sequences to achieve similar learning goals.

⁸ Alice Miel. *Sequence in Learning—Fact or Fiction*. Washington, D.C.: American Association of Elementary-Kindergarten-Nursery Educators, National Education Association, 1966.

Tests and the belief that accurately stated objectives may be tested have a higher priority in the IPI program than is deserved in a good educational program. There is ample evidence around that programs based on predetermined tests are not in the best interests of learners. It is this belief which has resulted in modifications of the originally announced procedures associated with the National Assessment movement.

Rationale for the acceptance of a grade of 85 percent as the criterion for movement to the next unit of work is unclear to me. It seems to me that there are certain units, such as driver education and safety, in which the responses must be above that fixed percentage, while in some others almost any level of achievement might be acceptable. The arbitrary nature of a specific percentage for all students and all units of work I find unacceptable.

In conclusion, I consider the IPI approach short in stressing many of the most valuable skills needed for successful living in the years ahead—skills of discussion and skills in interpersonal relationships. Schools need approaches which make them more humane and open institutions. Implementation of the eleven characteristics for moving in this direction outlined in *To Nurture Humanness* provides a workable direction for all schools.⁹

While some persons see the IPI program as aimed in the direction of "humanness and openness," I consider its implementation a step in the opposite direction for many schools. For more than 50 years, many recognized leaders in education have worked to move learning opportunities provided in our schools from "rigid, passive, rote, and narrow" to "open and humane." We must not be diverted from this goal by programs which, though wearing the technological dress of the 1970's, continue to place high value on learning opportunities basically "rigid, passive, rote, and narrow." □

⁹ Mary-Margaret Scobey and Grace Graham, editors. *To Nurture Humanness: Commitment for the 70's*. 1970 ASCD Yearbook. Washington, D.C.: Association for Supervision and Curriculum Development, 1970. pp. 223-30.

Copyright © 1972 by the Association for Supervision and Curriculum Development. All rights reserved.