

Feuerstein's Instrumental Enrichment; Teaching Intelligence to Adolescents*

Nicholas Hobbs



Working a paper-and-pencil exercise

In his new book an Israeli psychologist explains the program he has developed to improve human ability to learn and to solve problems.

Reuven Feuerstein's *Instrumental Enrichment*, along with its companion volume, *The Dynamic Assessment of Retarded Performers*, represents an intellectual achievement of formidable proportions. Few single works in contemporary psychology equal it in originality and ingenuity, in scope, in theoretical importance, and in potential social significance.

The two books could have been given an embracing title like "The Making of Mind," or "Assessing and Teaching Intelligence." Mind? Intelligence? Teaching intelligence? Yes, for it is with such matters that the books deal. Although Feuerstein's work is based on extensive experience with Israeli adolescents who were retarded in intellectual performance for reasons associated with their diverse cultural origins, disrupted lives, and limited opportunities to learn, he in fact provides the foundation for a general theory of cognitive competence, coupled with a technology for assessing learning potential and for repairing functional deficits in the cognitive process. Feuerstein is concerned generally with the ability to learn and solve problems; with why this ability fails to develop in the absence, during early childhood, of systematic learning mediated by a caring adult; and how, much later than generally thought possible, identified cognitive deficits can be remedied by a formal instructional program. Thus the significance of his work extends substantially beyond its implications for programs for retarded performers—to, for example, general programs of child care and parent education.

Knowledge of Feuerstein's intellectual origins and of the staggering social and educational problems he was trying to solve will help the reader appreciate both his insights into psychological functions and the practical consequences of his work. While pursuing graduate study under André Rey at the University of Geneva (Feuerstein subsequently received his doctorate at the Sorbonne), he began to work with Youth Aliyah, the agency responsible for the ingathering and integration of Jewish children in Israel. Between 1950 and 1954 he and his colleagues examined large numbers of adolescents in transit camps in Morocco

* From the foreword to *Instrumental Enrichment* by Reuven Feuerstein. Copyright © 1979 by University Park Press, Baltimore, Maryland.

and southern France. The young people came from many cultures, some quite primitive, in Asia, Africa, and Europe. They had to be received, settled, classified, and schooled for citizenship in a new country with a unique and thoroughly modern technological culture. Tests of many kinds were given as a basis for planning their education after immigration. But all existing tests proved inadequate to the task because they reflected what the children had learned, or more accurately had failed to learn, not what they could learn; their achievement status, not their learning potential. Feuerstein notes: "Our clinical observations strongly suggested that a substantial reservoir of abilities was being left untapped by the measuring instruments we employed." Inspired by "our two great masters of the Genevan School, Professor Jean Piaget and Professor André Rey," Feuerstein initiated work leading to "a radical shift from a static to a dynamic approach in which the test situation was transformed into a learning experience for the child" (in the Learning Potential Assessment Device, or LPAD) and ultimately to a formal instructional program (the Feuerstein Instrumental Enrichment, or FIE, program) designed "to change the cognitive structure of the retarded performer and to transform him into an autonomous, independent thinker, capable of initiating and elaborating ideas." On the basis of 25 years of clinical experience now buttressed by a growing body of research, Feuerstein insists that "except in the most severe instances of genetic and organic impairment, the human organism is open to modifiability at all ages and stages of development."

Such a fundamental reconstruction of the nature of intelligence could perhaps have occurred only in a country that could not afford to waste people.

In developing the theoretical foundations for his work, Feuerstein had to transcend three intellectual traditions in psychology: psychodynamic theory, behaviorism, and the psychometric movement. The results have important implications for education and child development in general. Psychoanalysis accorded emotional factors a primary role in determining individual conduct. Behaviorism ruled out internal factors and concentrated attention on inputs and outputs, on stimuli and response-related environmental contingencies, to account for behavior. Psychometrics was concerned with increasingly precise and quantitative descriptions of static states, or of the end-products of development and learning to enhance the predictability of the applied measures. These three traditions gave insufficient attention to the most distinctly human of human attributes—the ability to think. One tradition said that man feels, another that man acts, and the third that the end-states of both can be measured. Feuerstein emphasizes that man also thinks. "Cognition [is] the focal point of successful adaptation." Then, further: "The neglect of cognitive processes has conspired to produce a widespread belief that intelligence is something that one either has or does not have and that attempts to change the structure and course of intellectual development are futile, if not impossible." He then proceeds to demonstrate (as others have done with young children) the mutability of intellect in response to intended



"... a substantial reservoir of abilities was being left untapped ..."

Look at the figure at the top of the page. For each drawing in the left column, there is a drawing in the right column which completes it. Write the number and the letter of the two drawings you combine to make the complete figure.



1	—	A
2	—	B
3	—	C

A Problem in Analytic Perception from Instrumental Enrichment

interventions even in late adolescence and early adult years.

Feuerstein's assessment of learning potential breaks with a half-century of theory and technology in the measurement of intelligence. He is not interested in *what* a child or adolescent has learned (which is what conventional intelligence tests measure, on the untenable assumption that all children have had an equal opportunity to learn the materials covered by the test), but in *how* the child learns and solves problems. He is interested not in the content of mind but in the formal structure of thought. The LPAD examiner engages the child in a clinical, teaching, learning exercise (test-teach-test) to discover the way the child perceives the world, processes information acquired, and communicates the results. A conventional intelligence test is designed to disclose the child's average performance to permit a comparison with the average performance of children of the same age; the LPAD, in contrast, invites, calls forth, discovers the child's peak performance, or learning potential. Furthermore, the conventional intelligence test yields a score useful only in classification while learning potential assessment leads to a prescription for intervention through instrumental enrichment. The Feuerstein Instrumental Enrichment program consists of 15 instruments made up of paper-and-pencil exercises, providing materials for 1-hour lessons three to five times a week for 2-3 years. These are not set pieces but systematic guides to creative teaching. Each instrument focuses on a specific cognitive deficiency and provides experience in overcoming it. Instruments are selected to fit deficiencies identified in the prior learning potential assessment.

I first saw Instrumental Enrichment used in classrooms in Israel in 1975, accompanied by Feuerstein.

In Jerusalem we visited a classroom for early adolescent girls whose appearance (miniskirts, lipstick, bubble gum) led me to anticipate the apathy or unruly behavior so often seen in inner-city schools. A superb teacher called the group to order, distributed Instrumental Enrichment materials, and then carried the group along in a highly creative transaction between teacher and children and among the children themselves, guided by the structure of one of the FIE tasks. At the outset what impressed me most was the high level of motivation of the students. Hands waved for recognition, and the performance of others was eagerly attended to. The FIE materials are evidently interesting. What impressed me later was that the children were both thinking and thinking about thinking; they were developing concepts they could apply in many other situations, and this they seemed to know.

We went next to a rural area to a day school for orphaned and disturbed children who boarded with families on a *moshav* or collective farm. There I watched and listened to Feuerstein talk with individual children. He knew a lot about each child from occasional visits to the *moshav* and from previous clinical work at the referral agency, the Hadassah-Wizo-Canada Child Guidance Clinic in Jerusalem, which he directs. The engagement between adult and child was intense, sometimes joyous; Feuerstein was providing a mediated learning experience for the child, sensitively adjusted to the edge of the child's growing capacity for formal thought. He asked a severely withdrawn child of perhaps 12 years of age to show me his marvelously intricate and imaginative drawing of a city. The three of us talked about it. The child was of borderline intelligence as conventionally measured, but his drawing and conversation indicated a potential far above his IQ. When we left, the child gave the drawing to me, and I still have it. Subsequently, Feuerstein arranged for the boy to take lessons with a distinguished Israeli artist. Instrumental Enrichment came alive for me that day.

Feuerstein ends his book with an account of research results and a commentary on the future of LPAD and FIE, to use initials sure to become familiar to psychologists, educators, and the public. The future looks bright indeed. *ET*



Nicholas Hobbs is Professor of Psychology and of Preventive Medicine, Vanderbilt University, Nashville, Tennessee.

Copyright © 1980 by the Association for Supervision and Curriculum Development. All rights reserved.