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Introduction

Putting Feuerstein's Program Into Practice

What are the building blocks of efficient thinking? How can teachers use subject teaching to promote cognitive development? How can parents or caretakers teach children thinking skills within the home? How can thinking skills promote interpersonal and affective development, enhance creativity, and facilitate multicultural awareness?

This book attempts to answer these questions by bridging thinking skills from fourteen instruments of Feuerstein's Instrumental Enrichment (IE) program to the areas of school, home, and community.

Who Is Feuerstein and What Is IE?

Reuven Feuerstein is an internationally renowned Israeli professor of psychology and a scholar in the field of child development. Through his work with low functioning and disadvantaged individuals, he developed innovative methods of testing and teaching. In common with other contemporary psychologists, he rejects that static belief that people are born with a certain intelligence that remains fixed throughout life. In contrast, he shows that people have the potential to change and are modifiable if provided with the right of kind of interaction.

The "right kind of interaction" he calls mediated learning. Through mediated learning, the individual develops efficient thinking skills that enable him or her to become an autonomous and independent learner. The cognitive functions are the prerequisites or building blocks of effective learning.

The cognitive functions and dysfunctions listed in Appendix 3 of this book are helpful in identifying and understanding the reasons for an individual's failure on or poor performance of a task. Once the

deficient functions have been identified, the individual may be helped by correcting and redeveloping these cognitive functions through providing appropriate and sufficient mediation. Feuerstein has developed a thinking skills program called Instrumental Enrichment (IE) which aims at remediating the cognitive dysfunctions.

Feuerstein's IE program makes use of pencil-and-paper exercises to develop thinking skills. The IE program consists of fourteen instruments that introduce fourteen different thinking skills or cognitive operations. In this book, these thinking skills are described and then bridged (applied) to the areas of school, home, and community.

"Instrumental Enrichment is most simply described as a strategy for learning to learn. It uses abstract, content-free, organizational, spatial, temporal and perceptual exercises that involve a wide range of mental operations and thought processes. The aim of the Feuerstein Instrumental Enrichment (FIE) program is to change the overall cognitive structure of the (impaired) performer by transforming his passive and dependent cognitive style into that characteristic of an autonomous and independent thinker. The Instrumental Enrichment program is . . . (aimed at) . . . the process of learning itself. For this reason, the various components of the program have been deliberately called "instruments" and the entire program "Instrumental Enrichment." The contents around which each instrument is built serve only as a vehicle for the development, refinement, and crystallization of the functional prerequisites of thinking. Implicit in the

(continued on next page)

conception of Instrumental Enrichment is the conviction that manifest low cognitive performance need not be regarded as a stable characteristic of an individual and that systematic intervention, directed at the correction of deficient functions, will render the condition reversible by producing a change in the cognitive structure of the individual."

Source: Feuerstein, R. & Jensen M. 1980. Instrumental Enrichment: Theoretical basis, goals and instruments, *Educational Forum*, 44, no. 4:401-23.

"The overall aim of the Instrumental Enrichment exercises is to turn children with a reduced ability to be modified—to learn and adapt—into much more flexible and reflective operators in the world. By changing and enriching a child's structure of thinking, Instrumental Enrichment makes him/her more receptive to stimuli and experience, and increasingly able to cope with new conditions and situations confronting him/her in life and, of course, in school."

Source: [page 96] Sharron, H. 1987. *Changing children's minds: Feuerstein's revolution in the teaching of intelligence*. London: Souvenir Press.

Children's reactions to Instrumental Enrichment:

"It's brilliant for your brains."

"It helps you not to be impulsive—before I used to rush into things."

"It helped me not to be frightened of new things."

"It helped me to think."

"It helped me do my other lessons."

Source: [page 95] Sharron, H. 1987. *Changing children's minds: Feuerstein's revolution in the teaching of intelligence*. London: Souvenir Press.

Comments from pre-service teachers about Instrumental Enrichment:

"It gives me insight into the process underlying students' thinking."

"It shows how to ask questions and accept there is more than one answer."

"More of this enrichment is needed."

"It should be introduced at High School."

"I have found different and alternative ways of looking at and doing things . . ."

"It has helped me try more approaches to problems, rather than just focusing on answers."

Source: Skuy, M., Lomofsky, L., Green, & Fridjhon, P. 1993. Effectiveness of IE for pre-service teachers in a disadvantaged South African community. *International Journal of Cognitive Education and Mediated Learning*, 1(3): 92–109.

The Aim of This Book

The aim of *Bridging Learning In and Out of the Classroom* is to further elaborate and bridge the thinking skills presented in Feuerstein's Instrumental Enrichment (IE) program.

This book provides an introduction to Feuerstein's program and an explanation of what it is, why it is important, and when and where it is used. The book then offers suggestions for bridging or transcending these thinking skills into the following areas:

- the school—where examples are given in classroom situations in terms of specific subject content, to show how classroom experiences can be used to mediate thinking skills
- the home—where everyday activities in the home can be used to teach thinking skills
- the community—where suggestions are given in community/counseling situations, to show how thinking skills can be used to promote interpersonal and affective (emotional/motivational) development, enhance creativity, and facilitate multicultural awareness

Organization of Dots

STRATEGY

Understanding organization depends on the development and use of various cognitive functions.

For example, to organize a lesson we need to ensure that we have all the relevant information (clear and systematic data-gathering), which is prepared in a structured and meaningful way (appropriate planning, behavior, adequate elaboration of concepts, summative behavior) and mediated in an interesting and appropriate manner (appropriate expressive behavior).

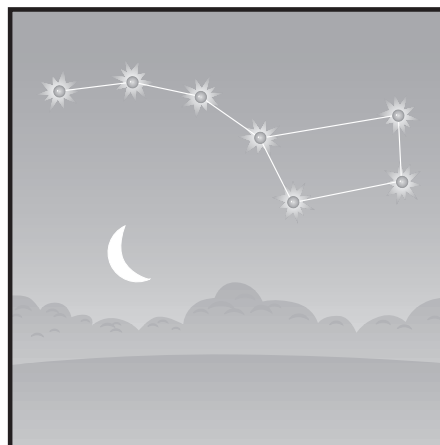
Why is a telephone directly organized from A to Z? In what section of the supermarket would you look for the soap? How is a study timetable planned? Being able to answer these kinds of questions depends on the ability to *organize*.

Imagine a child born into this world of stimuli without the relationship between them being explored and explained. The world would appear a very confusing, chaotic, and frightening place for the child who would then experience what Feuerstein calls an “episodic grasp of reality” (the perception of reality as consisting of separate, isolated, and unrelated episodes). In order to overcome this chaos or episodic reality, we impose an order on the universe by organizing objects and events according to relationships and rules.

This kind of organization varies depending on such factors as culture. For example, writing is organized in some cultures from right to left, and in other cultures from left to right. As organization is mediated to the child, culture is transmitted. Thus, the child is able to see relationships among things and make order out of apparent chaos.

What Is Organization?

Organization involves forming relationships among objects, events, or ideas according to rules, systems, principles, or criteria. For example, words in a dictionary are organized in alphabetical order.



Why Is Organization Important?

- to aid understanding (e.g., an essay having greater clarity when it is organized into an introduction, body, and conclusion)
- to create order and meaning (e.g., laws of the land being organized into a legal system so that people understand their rights)
- for efficiency (e.g., diaries or daily logs, which enable us to manage time more productively)
- for convenience (e.g., products in a discount or superstore being organized into departments, such as groceries, kitchenware, gardening tools, and clothing to make shopping easier)

When and Where Do We Organize?

- Time can be organized into seconds, minutes, hours, days, weeks, seasons, years, centuries, etc.
- Objects are arranged according to criteria (e.g., food in a shop, books in a library, clothes in a closet).
- Activities are planned and arranged (e.g., outings, parties, tournaments, games).
- Ideas and thoughts need formulating and structuring (e.g., poems, mind maps or overviews, arguments).
- Knowledge can be categorized (e.g., science, fine arts, humanities).