

Introduction to Reuven Feuerstein Theory- Kinga Coubard

Reuven Feuerstein was an internationally recognized Israeli Professor of Psychology who worked on enhancing cognitive development of children with different conditions. Through his work with children he developed methods of testing and teaching that have been used worldwide for more than 35 years. Along with other contemporary psychologists (Lev Wygotski, Rudolf Schaffer, David Wood) Professor Feuerstein believed that human intelligence is not static nor fixed and that we can change intelligence ratio by providing very specific types of interactions. This potential to change which is inside every child R. Feuerstein named: **Structural Cognitive Modifiability** and this specific type of interaction that facilitates that change is called : **Mediated Learning Experience**.

Structural Cognitive Modifiability – is the system of beliefs that all human beings are modifiable, no matter what they have been diagnosed with or what caused the condition – “the chromosomes don’t have the last word”. All learners have the potential to change and regulate the way they learn and think. They are capable of using thinking skills in different settings and environments. In Feuerstein’s approach we do not focus on teaching particular skill or overcoming specific difficulties. The real aim is to teach a child (or adult) how to learn in order to adapt their thinking to different situations. Structural Cognitive Modifiability is an optimistic approach to disability suggesting that there is always something that can be done, and that there is always a solution to overcome difficulties.

Mediated Learning Experience – is a very specific type of interaction. It goes far beyond the classical Piaget’s incidental learning formula **S-O-R** which signifies that the learner (**O** – organism) interacts directly with stimuli (**S**) and responds to the surrounding world (**R**). Feuerstein’s new formula **S-H-O-H-R** stands for mediated learning. This learning is called mediated because **human being = mediator** is imposed between learning organism and the world of stimuli, to interpret, guide and give meaning to everything around. This type of interaction is always intentional and the mediator needs to have higher level of knowledge, experience in order to create conditions for learning. It doesn’t mean that to be a mediator, one needs to be an adult (parent, teacher, counselor). Mediated Learning Experience can also occur between peers and is called Peer Tutoring. But still the difference in knowledge is required (higher in mediator peer compared to learner peer).

Are all interactions, mediated-learning ones? The answer to this question is **NO**. Mediated learning is a very specific interaction and we can call interaction a mediated one if it fulfills three universal criteria listed below:

- 1) **Intentionality and reciprocity** – mediation of intentionality occurs when the mediator deliberately guides the interaction in a chosen direction, by selecting and interpreting specific stimuli. Mediation is always a purposeful and intentional act in which mediator works actively to focus learner’s attention on the stimuli which is the subject of learning process. Reciprocity occurs when we see that learner is taking an active part and she/he is involved in learning process. The learner needs to demonstrate cooperation and responsiveness for everything that mediator is proposing.
- 2) **Meaning** – occurs when the mediator conveys the significance and purpose of an activity. The mediator needs to show emotional involvement while discussing the importance of the activity with the learner and needs to make sure that the child understands why the activity should be done. This element of mediation gives the answer to the “very often posed by children” question: “Why do we need to do this? Why must we learn this?” Some psychologists argued with Reuven Feuerstein that imposing one’s values might be perceived as dogmatism. But Feuerstein always said that the ultimate goal of mediation of meaning is to teach the child to search for meanings. And to achieve this goal we first impose the meanings. And with time and experience, the child is able to search for meanings independently. The specific meanings mediated by adults are modified with time, but what will always stick is the orientation to search for meaningfulness. And this ability can be instilled only by mediator.
- 3) **Transcendence**- occurs when an interaction goes beyond immediate and direct learning situation and

environment. The goal of mediation of transcendence is to promote the acquisition of principles, concepts and strategies that can be generalized and used beyond the problem-solving context. It occurs when the mediator is linking the specific issue or activity with others. The ultimate goal of transcendence is to develop in child the need for reflective thinking and forming the relationships among things.

With those three criteria Reuven Feuerstein listed others that can contribute to the learning process. The remaining nine criteria (situational, reinforcing parameters) enrich the experience of Mediated Learning Experience and should be used taking into consideration the particular child's needs and culture in which she/he is raised. Here is the list of them:

- 1) mediation of feeling of competence,
- 2) mediation of regulation and control of behavior,
- 3) mediation of sharing behavior,
- 4) mediation of individualization and psychological differentiation,
- 5) mediation of goal seeking and goal achieving,
- 6) mediation of the search for challenge, novelty and complexity,
- 7) mediation of the awareness of being a modifiable entity,
- 8) mediation of optimistic alternatives,
- 9) mediation of a sense of belonging.

Based on the developed theoretical model, Reuven Feuerstein proposed two separate groups of instruments: one devoted to assessment of cognition and one devoted to cognitive intervention. The theory of Structural Cognitive Modifiability became a core idea upon which Feuerstein builds up assessment tools called Learning Propensity Assessment Device (LPAD) and from theory of Mediated Learning Experience he build up Feuerstein Instrumental Enrichment Program (for details see the schema below).

FIE – Standard is comprised of 15 instruments that can be used in individual work setting, small groups or in the classroom. The materials provided during training cover the need for 2 to 3 years intensive cognitive program, depending on amount of hours devoted to program per week (3-5 hours/per week).

FIE – Basic is comprised of 11 instruments and can be used in the same setting as FIE-S program. The materials provided during training cover the need for 2 years intensive cognitive program. The instruments are organized into the following groups according to their contribution to cognitive development:

- a) perceptual and motor development,
- b) spatial orientation, oriented toward verbal labeling,
- c) social and emotional awareness,
- d) abstract and integrative thinking,
- e) content knowledge.

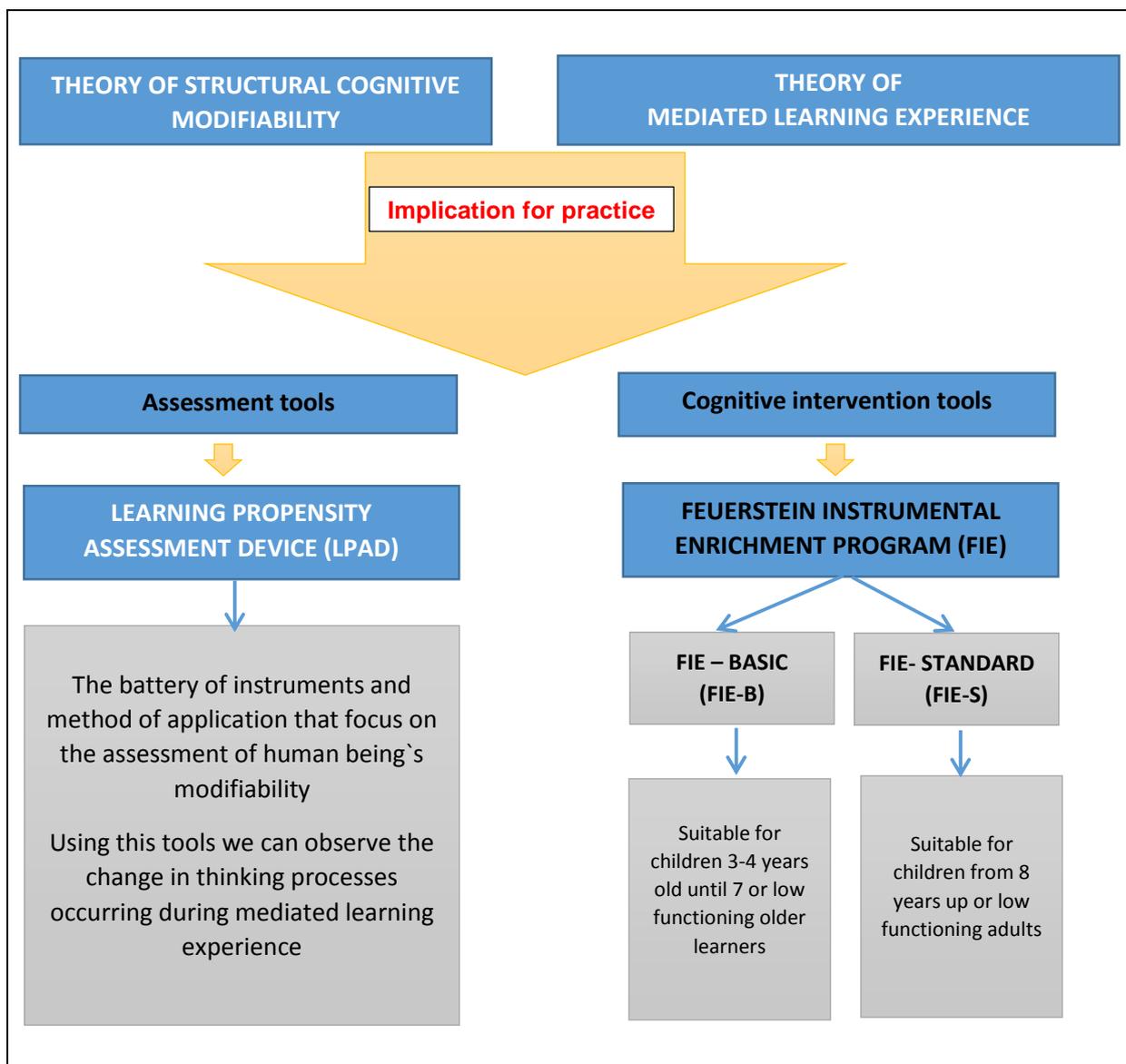
The FIE-S program requires a level of obligatory proficiency, that makes it difficult for special education therapist and teacher to use. That's why in the case of working with children with special needs, one should always start with FIE-B program. It doesn't mean that the level of abstraction is low in FIE-B program, it just means that the way of presenting is more adapted to special-needs children (more colorful, cartoon-like materials). In FIE-B instruments more demand is put on the mastery of content.

The reason for this as Feuerstein stressed is: young and low-functioning children needs a wide and repetitive exposure to general knowledge in order to assure correct development. And also the more concrete the instruments are the easier child can transfer the knowledge to reality.

FIE programs can be used for children with different special needs:

- a) intellectual disability (mild and moderate) caused by genetic of environment factors,
- b) visual and hearing disability (deaf and blind children).
- c) learning difficulties,
- d) children with dyslexia,
- e) children with social, emotional problems.

FIE was used in all of the above-mentioned situations and validated by researchers confirming the beneficial effects of the program. If you want to learn more about the research on FIE program you can find more information on this web site: <http://www.icelp.info/research.aspx>



Mediated Learning Experience in practice

How to introduce directions (left / right) using mediated learning approach:

The concept of directions is very abstract that's why a lot of children (not only with disabilities) are struggling and are confusing "left and right".

Here are some practical tips on how to help children, using mediated learning approach:

1. High abstract concepts should be always introduced by making them as concrete as possible.

To make left and right concrete, put a bracelet on the child's left wrist (it can be a real bracelet or just a ribbon). In the case of children with autism spectrum disorders, who may have difficulties accepting a bracelet, put a red strip on the left cuff of the shirt. (It should be a long sleeve shirt).

The rationale for using the bracelet/strip while learning directions is that it plays the role of indirect mediator. Firstly, it helps just to indicate without errors the direction, but the most important role of the bracelet is more than this. The bracelet helps the child to take the control over understanding and using correctly the concept of left and right ([mediation of intentionality](#)). It means that first the concept of left and right is external for a child and it is indicated by parent or teacher. But we want the child to be independent in using this concept. The best way to do this is to put indirect (intermediate) mediator between the parent/ teacher and the child. That will help the child to take the control over understanding the concept. When learning directions this intermediate mediator will be a bracelet or a strip.

The bracelet or the shirt with strip should be used for 7 consecutive days (not less) or longer in case of more severe disabilities. While putting the bracelet (or a shirt with strip) explain that this is a special bracelet (strip) that will help her/him to learn the directions and that the bracelet (while pointing to bracelet) shows left. Afterwards point to the hand without bracelet and say "the hand without bracelet shows right"

Don't forget to explain why it is important to recognize the directions and why we are learning this concept ([mediation of meaning](#)): to know where to go, not to get lost etc.

1. The first day just point closely to the hand and say that the hand with bracelet / strip is left. Repeat this sentence as often as possible until you will see that the child can finish your sentence (or point correctly in case of non-verbal children): "*the hand with bracelet is (...)*" "*left*" (child response). Show enthusiasm and praise when the child is giving the correct answer ([mediation of reciprocity](#)).
2. The second day just point closely to the hand and say that the hand without bracelet / strip is right. Repeat this sentence as often as possible until you will see that the child can finish your sentence (or point correctly, in case of non-verbal children): "*the hand without the bracelet is (...)*" "*right*" (child response). Show enthusiasm and praise when the child is giving the correct answer ([mediation of reciprocity](#)).
3. The third day you can start playing the game to raise the left/ right hand (you can play this game only when you make sure that child can finish the sentence or point to left/right hand without any errors and any help from you (promptless))
4. The fourth day, play raising-hand-game. You can also introduce the game "find me" ([mediation of transcendence](#)). You hide the car (or any other item) somewhere in the room or flat and give the child directions to find it : "You need to go left / you need to go right" etc.
5. On the fifth day you can introduce other games involving cars and crossroads or trains. Remember, if you want the child to give you directions you need to sit at the same side of the table or carpet (it's too early to show that left/right is an arbitrary concept: "my left is not yours"— if we are facing each other).

6. On the day six and seven you can go outside and practice going left or right first on the playground than on the streets ([mediation of transcendence](#)).
7. Remember that the bracelet/ strip should be kept on the child`s hand on all 7 consecutive days.
8. After the 7th day, you can remove the bracelet and put on the left hand`s index finger a small sticker or you can polish the index finger (using nail polish – it last longer) and you remind that hand with sticker/nail polish is left. The hand without polish is right. You continue playing direction games, especially outdoor ones (on the road to school, while the grocery shopping etc.) The sticker (polished nail) should be kept for 14 consecutive days.
9. During the third week you show to the child that the left/right is arbitrary (keeping the nail polish or a sticker on child`s index finger). You sit with the child on the same side (both facing forward) and you show your left hand. Afterwards you can put it on your left hand bracelet (or strip). It should be visible to child at all times. Now you move to the table and ask the child to observe carefully what will happen. When you are sitting face to face with your child, first put your hand below the tabletop and ask the child to show her/his left hand. Afterwards put your hands on the table and wave to the child saying “here is my left hand” and ask the child to wave back with her/his left hand. Afterwards grab your child`s hand and say “Here are our left hands”. Play like this as often as possible.

If you see that the child is having problems understanding, prepare two A4 laminated boards with traced hands and color the left hand using red marker and put them on the opposites sides of the table (attach the boards to the table so the child can see them all the time while seated).

When you will see that the child is having no problems with left hand you can play at table time with the right hand.

When my/your left/right hand is mastered while seated vis-à-vis, you can start different games. For example: while standing face to face to the child, hold child`s left hand, walk forwards and backwards. Stay behind the child and put your left hand on child`s left hand and walk forwards and backwards.

1. During the fourth week remove all the intermediate mediator from your child (just keep the bracelet on your left hand if you would like to play the games involving recognition “my left/your left”)
2. After a month of practice, the child should be able to recognize left/right in different settings and to understand the concept of “my left/your left”. If the child is still experiencing some difficulties, move back to the last mastered step and repeat the procedure for following steps which are not mastered yet.

[Here are some important links to Feuerstein Centers](#)

<http://www.icelp.info/>

In France:

<http://www.icelp.info/global/france.aspx>

<http://www.aide-moi-a-apprendre.fr/>

[Here are some examples and testimonies of children and adults with different medical conditions and how they have been affected by Feuerstein method:](#)

https://www.youtube.com/watch?v=Th9nw99Kw-4&index=2&list=PLNSbcqHeyY6uvFPWNnNOiZDLsfs7n_mxg

<https://www.youtube.com/watch?v=lqSQI6VJgLk>

https://www.youtube.com/watch?v=mzSDu1fV6Cg&list=PLNSbcqHeyY6uvFPWNoNOiZDLsfs7n_mxg&index=3

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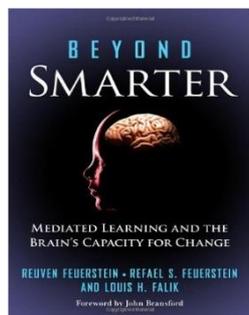
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<https://www.youtube.com/watch?v=lqSQL6VJgLk>

https://www.youtube.com/watch?v=mzSDu1fV6Cg&list=PLNSbcqHeyY6uvFPWNoNOiZDLsfs7n_mxg&index=3

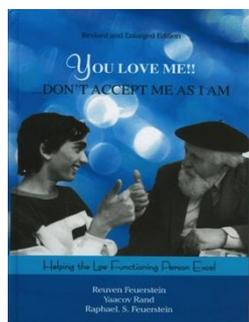
Book you may want to read:



Feuerstien R., Feuerstein R. S., Falik L.H. (2010). *Beyond Smarter. Mediated Learning and the Brain`s capacity for change*. New York: Teachers College Press.

Excellent, updated and short (155 pages) books explaining the core ideas of Prof. Feuerstein approach with full description of therapeutic and diagnostic tools.

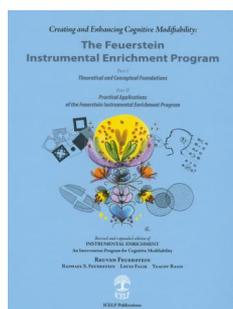
For parents and professionals



Feuerstien R., Rand Y., Feuerstein, R. S. (1997). *You Love Me...Don`t Accept Me As I Am. Helping the Low Functioning Person Excel*. Israel: ICELP Publications.

Inspirational and excellent book giving not only hope but changing the perception of disability. It describes individual cases of children and families and how they have been affected by Feuerstein method.

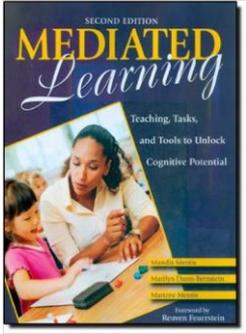
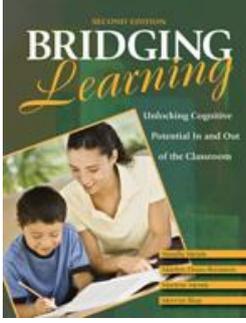
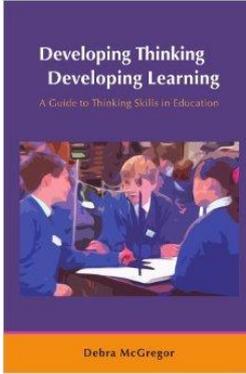
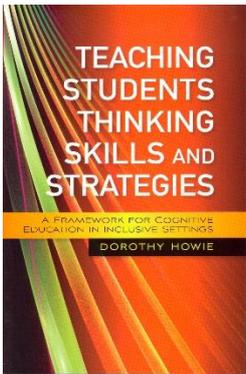
For parents and professionals



Feuerstein R., Feuerstein R. S., Rand Y., Falik L.H. (1997). *Creating and Enhancing Cognitive Modifiability. The Feuerstein Instrumental Enrichment Program*. Israel: ICELP Publications.

Detailed description of prof. Feuerstein theory, model and philosophy (part I). Second part of the book contains description of the Feuerstein Instrumental Enrichment Program (only standard version – for older children)

For professionals (teachers, special educators, psychologist)

	<p>Mentis M., Dunn-Bernstein M., Mentis M. (2008). <i>Mediated Learning. Teaching, Task and Tools to Unlock Cognitive Potential</i>. Thousand Oaks: Corwin Press, A Sage Publication Company.</p> <p>Excellent book! This book describes high effective strategies to enhance not only cognitive development but also motivation to learn based on Feuerstein theory. It contains practical tools that can be used in everyday home setting as well as during therapy.</p> <p>For parents and professionals</p>
	<p>Mentis M., Dunn-Bernstein M., Mentis M. (2009). <i>Bridging Learning. Unlocking Cognitive Potential In and Out of the Classroom</i>. Thousand Oaks: Corwin Press, A Sage Publication Company.</p> <p>This book provides techniques for educators how to increase students' cognitive skills (organization, comparison, categorization and problem solving). Demonstrates how teachers, psychologists can mediated learning and extend learning beyond classroom. This book describes practices for older children (starting at age 8/10).</p> <p>More suitable for professionals (teachers, special educators, psychologist) but can be useful for parent of older children</p>
	<p>McGregor D. (2007). <i>Developing Thinking, Developing Learning. A Guide to Thinking Skills in Education</i>. London: Open University Press, McGraw-Hill Education.</p> <p>This book includes not only prof. Feuerstein approach it describes different approaches to enhance cognitive development and learning thinking skills. It contains practical tips for teacher, psychologist how to foster thinking in daily school routine or therapeutic sessions.</p> <p>For professionals (teachers, special educators, psychologist)</p>
	<p>Howie D. (2011). <i>Teaching Students Thinking Skills and Strategies. A Framework for Cognitive Education in Inclusive Settings</i>. London: Jessica Kingsley Publishers</p> <p>This book describes different approaches to enhance learning thinking skills and implement the cognitive education programs into practice of inclusive education It introduces a model and approach to ensure full inclusion for children with different needs.</p> <p>For professionals (teachers, special educators, psychologist)</p>