

Feuerstein's Instrumental Enrichment

THINK! Of Fairfield County
Westport SEPTA

4/6/17

THINKING STRATEGIES

INSTRUMENTAL ENRICHMENT:

A WELL-RESEARCHED
COGNITIVE EDUCATION PROGRAM

(Standard Version, Ages 9-Adult)

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OVERVIEW

- Why Teach Thinking Skills
- Theory Behind FIE
- Examples
- Research and Evaluation Results
- FIE In Westport

Why Teach Higher-Level Critical Thinking?

"THE KNOWLEDGE EXPLOSION"*

- 1750 – 1900 Knowledge Doubles Once
- 1900 - 1950 Knowledge Doubles Again
- 1950 - 1960 Knowledge Doubles Again
- 1960 – Present Knowledge Doubles About Every 5
Years
- By 2020 Knowledge Will Double Every 73
Days (!)

*Courtesy of World Future Society, Bethesda, Maryland

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THINKING SKILLS FOR INSTRUCTION

- Finding Relationships and Patterns
- Comparison
- Classification or Categorization
- Analysis (Parts and Wholes)
- Sequencing
- Following and Creating Instructions
- Making Inferences
- Finding Reasons
- Drawing Conclusions
- Creating Alternative Solutions To Problems
- Setting Priorities
- Making Predictions

History Of Instrumental Enrichment

- Formation of Israel's School System
- Dr. Reuven Feuerstein
- Observed Differences In Yemenite and Moroccan Children
- "Teach – Test"
- Lack of "Mediation"
- Theory of Cognitive Modifiability

THEORY OF COGNITIVE MODIFIABILITY

- Hopeful Message - IT'S NEVER TOO LATE!
- Views the human organism as open, adaptive and amenable to change
- Possible to modify a person's cognitive level through mediated experiences
- Intelligence is viewed as a propensity of organism to modify itself when confronted with the need to do so
- Intelligence is NOT FIXED – It is DYNAMIC

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KEY INSTRUMENTAL ENRICHMENT CONCEPTS

- Cognitive Modifiability
- Mediation
- Metacognition
- Bridging
- Retarded Performance

MODEL FOR A THINKING EPISODE

1. Label and Teach the Thinking Skill Through the IE Experience
2. Ask Metacognitive Questions
3. Make “Bridges” to Subject Matter and to Life Applications

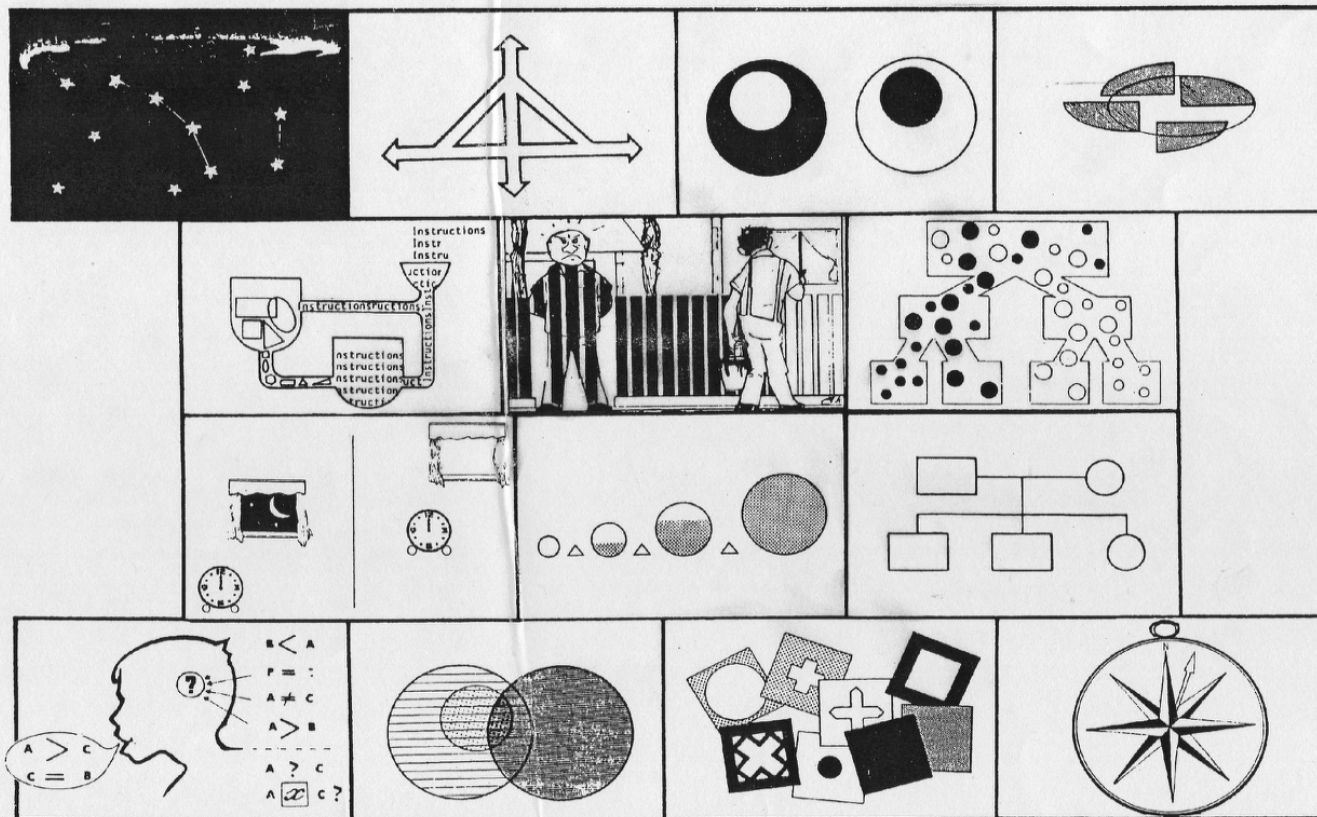
IE COGNITIVE FUNCTIONS

I. Gathering All the Information We Need (Input)

II. Using the Information We Have Gathered (Elaboration)

III. Expressing the Solution To A Problem (Output)

SCHEMATIC OF FIE STANDARD



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FIE STANDARD's 14 Instruments

- 1.Organization of Dots
- 2.Orientation in Space
- 3.Comparisons
- 4.Analytic Perception
- 5.Instructions
- 6.Illustrations
- 7.Categorization
- 8.Temporal Relations
- 9.Numerical Progressions
- 10.Family Relations
- 11.Syllogisms
- 12.Transitive Relations
- 13.Representational Stencils
- 14.Orientation in Space II

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SAMPLING OF THE INSTRUMENTS

- Comparisons
- Organization of Dots
- Orientation in Space





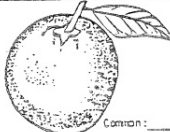





COMPARISONS

- Similarities and Differences
- Precision
- More Than One Right Answer *AS LONG AS YOU CAN DEFEND IT LOGICALLY!*
- Pictures vs. Words

COMPARISONS--Pictures

Name _____

Indicate what is common to each pair of pictures and the differences between them.

	
Common: _____	Different: _____
	
Common: _____	Different: _____
	
Common: _____	Different: _____
	
Common: _____	Different: _____
	
Common: _____	Different: _____

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COMPARISONS--Words

Name _____ 2

Indicate what is in common to the things named by each pair of words and the differences between them.

Church Factory	_____	_____
Love Hate	_____	_____
Earring Ring	_____	_____
Bread Meat	_____	_____
Milk Coca Cola	_____	_____
Movie Television	_____	_____
Baby Old man	_____	_____

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ORGANIZATION OF DOTS

RULES:

- Work in Sequence
- Be Precise – Always Compare Visually to the Model
- Can't Rotate the Page – Turn the Figure With Your Mind!
- Large Dots Are Cues That Help
- Use every dot only once; none left over

ORIENTATION IN SPACE

- Right, Left, Front, Back
- Learn About *Point Of View*
- Possibilities

IN SUMMARY, FIE IS.....

- A process by which learners identify and then overcome specific difficulties in input of, processing of, and responding to stimuli in the environment
- An approach where **teachers** become **mediators**
 - A mediator's role is to:
 - Understand, with the learner, the process whereby the learner learns; ask questions; lead; guide—not tell
 - To evaluate learning strategies with the learner
 - Partner with the learner to improve the learner's learning process

WHEN HAS IT BEEN USED?

- **Developed in half a century of experimentation, mostly with young people classified with learning disorders such as:**

- Holocaust death camp survivors
- Ethopian Jews resettling in Israel
- Specific learning disability
- Language impairment
- Down's Syndrome
- Spinabifida
- Autism
- ADD
- Head injuries

- Results have been hailed around the globe.
- Results with “normal” and “gifted” students have been very positive as well

Rooted in Feuerstien's belief that

INTELLIGENCE IS MODIFIABLE – NOT FIXED.

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Why Bring FIE to Fairfield County?

- Immediately address the higher level critical thinking skills of students with Special Needs
- Address the needs of regular education students
- Address the needs of underachieving gifted students
- Maximize all students COGNITIVE POTENTIAL in order to increase self esteem and therefore lower the incidence of risky behaviors.


What are the benefits of FIE?

- Nearly 400 research studies show definitive improvements in problem solving, academic progress, and generic reasoning -- Corrects cognitive functions that fail to develop
- Develops the language necessary for the analysis of, and insight to, students' own thinking.
- Produces intrinsic motivation as a prerequisite of problem solving,
- Creates insightful and reflective thinking
 - Helps the mediator create motivation in the learner
- Alters the self image of the student

Sample Results

Taunton, Mass Public Schools

SAT-R (Stanford Achievement Test for Reading) **Changes in Group Mean Scores**

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Sample Results

Ben Bronz Academy – West Hartford, CT

Reports:

- Increased scores on Woodcock Johnson
- Increased scores on Ravens Progressive Matrices
- Increased abilities in thinking skills and problem solving

PROVES OLD CHINESE PROVERB...

“Give me a fish, I’ll eat
tomorrow...”

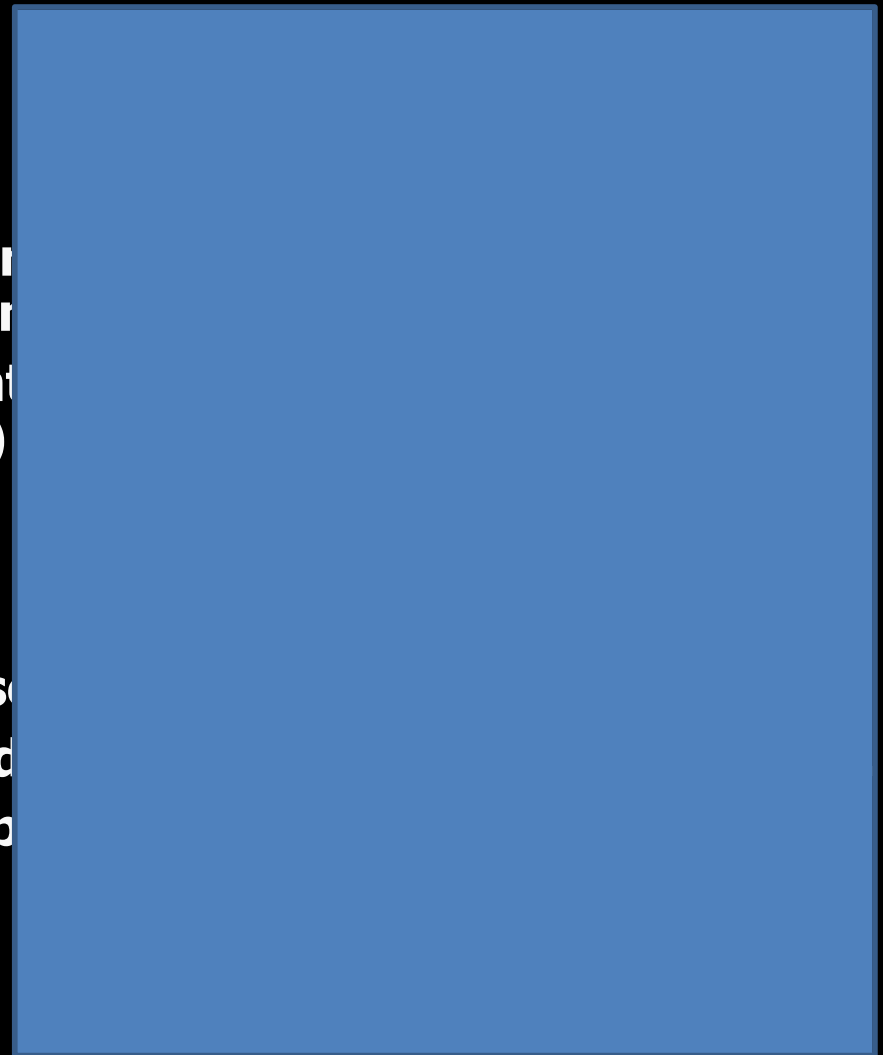
Teach me to fish, I’ll eat for a
lifetime!”

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THINK's Approach to Implementing FIE

- **Educate**
- **Assess Interest**
- **Develop Program for Mediators**
- **Have Mediators implement program in school programs and private learning**
- **Our FIE Authorized Training Center (Consulting and Trade Associates) monitor mediators progress and methods**
- **Advertise our success through a series of sessions**
- **Keep Boards of Education apprised**
- **Move toward having a "Mediated Learning Environment"**
- **Move toward giving BOEs an opportunity to revise their curriculum**



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OUR PILOT PROGRAM

- February to June 2004
- One Elementary Group
- One Middle School Group
- Two One-On-One Participants
- We found improvements in students' analogical reasoning on a standardized test, and on the quality of their written solutions to a real-world problem

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MOVING AHEAD....

- Level II Training
- Pilot Program Group Combined Elementary and Middle School Group Will Move Into Level II In The Winter
- New Level I Training For Our New Mediators and Parents
- Preparing for New Students for

ADDITIONAL RESOURCES

- International Center For The Enhancement of Learning Potential - www.icelp.org
- The Hope Centre
www.hope-centre.org.uk
- Southeastern Center For The Enhancement of Learning
www.scel.org
- Quality Learning Systems International
www.qlsi.com

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