**Feuerstein Instrumental Enrichment (FIE)**

FIE (Feuerstein, Rand, Hoffman, & Miller, 1980) is a cognitive intervention program aimed at developing a broad range of students’ cognitive functions and enhancing their learning potential. Unlike other cognitive programs that “infuse” cognitive strategies into curricular lessons, FIE offers as separate, content-neutral lessons aimed at the development of cognitive strategies and function in their “pure” form. These strategies and functions are then “bridged” to particular content during regular curricular lessons. FIE materials include several series of paper-and-pencil tasks targeting such cognitive skills as comparison, classification, analytic perception, orientation in space and time, and so on.

1. Cluster 8 has been delivering FIE service to schools since 2014. This involves Learning Propensity Assessment Devices (LPAD) assessment, Basic and Standard Instrumental Enrichment programmes.
2. On the field studies (pre and post data gathering) has been completed in 5 schools. For this year one such study is in progress to a group of above average students.
3. Six RTLBs from the Cluster have completed the FIE Basic programme and have started practicing in schools via their casework.
4. FIE Community of Practice (COPs) have developed the following pamphlets about FIE:
5. FIE Basic Programme
6. FIE Standard Programme
7. Mediated Learning Experience
8. FIE COPs have also organised a Zoom presentation about Mediated Learning Experience (MLE) by Dr. Mandia Mentis from Massey University on the 8th of Sept. 2020.

For more information about the above please contact:

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**On the field studies:**

1. Sebestian, S. (2014). Feuerstein Instrumental Enrichment Standard Programme (group) at Selwyn College, Auckland (14 students).
2. Sebestian, S. (2015). Feuerstein Instrumental Enrichment Standard Programme at Glenbrae Primary School (8 students).
3. Sebestian, S. (2016). Feuerstein Instrumental Enrichment Standard Programme (class-wide) at St. Ignatius Catholic Primary School, Auckland (17 students -2 terms; 8 students 4 terms).
4. Sebestian, S. (2017). Feuerstein Instrumental Enrichment Basic Programme at Victoria Avenue Primary School, Auckland (3 students).
5. Sebestian, S. (2018/19). Feuerstein Instrumental Enrichment Standard Programme at Orakei Primary School, Auckland (8 students).
6. **Sandi Sebestian (2020), 'Implementation of Feuerstein Instrumental Enrichment Programme in a Primary School in New Zealand'. Journal of Cognitive Education and Psychology, vol. 19, issue 1.**

**F**euerstein Website:

[www.icelp.info](http://www.icelp.info)

New Zealand Feuerstein Forum:

[www.nzfeuersteinforum.org](http://www.nzfeuersteinforum.org)

**Publications:**

**Research evidence**

The Feuerstein approach to the teaching of thinking is one of the most extensively researched in the world.

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New international book:

Rabbi Rafi Feuerstein (2019) Feuerstein on Autism. Jerusalem:International Centre for Enhancing Learning Potential

**International research:**

**Meta-analyses:**

Romney,D.M. and Samuels, M.T. (2001). A meta-analytic evaluation of Feuerstein’s Instrumental Enrichment program. Educational and Child Psychology,18, 19- 34. (Professor John Hattie noted the positive effect sizes for achievement in relation to this program, in his book Visible Learning.)

Higgins, S., Hall, E., Baumfield, V. and Moseley, D. (2005). A meta-analysis of the impact of the implementation of thinking skill approaches on pupils. Research Evidence in Education Library, London: EPPI Centre. (Similar positive effects are reported.)

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**Book chapters:**

Feuerstein, R., Feuerstein R.S., Falik, L. and Rand, Y. (2006). Creating and Enhancing Cognitive Modifiability: The Feuerstein Instrumental Enrichment Program. Jerusalem: ICELP Publishers. (The final chapter, chapter 12, ‘Instrumental Enrichment: Research and Applications’ summarises research.)

Howie, D.R. (Second edition, forthcoming, Routledge), Thinking about the Teaching of Thinking: The Feuerstein Approach.(Chapter 2 ‘The Feuerstein approach to the teaching of thinking’ presents up to date research.)

Howie, D.R. (2011). Teaching Students Thinking Skills and Strategies: A Framework for Cognitive Education in Inclusive Settings.(Three sections, each in chapters 4. 5 and 6, present up to date Feuerstein research, in relation to practice.)

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**Some major research reports:**

Feuerstein, R., Rand, Y, Hoffman, M.B. and Miller, (1980). Instrumental Enrichment: An Intervention Program for Cognitive Modifiability. Baltimore: University Park Press. The initial major research study on this program was published in this book, with evidence for the ‘snowballing’ positive effects required by the program’s aim for ‘structural cognitive modifiability’.

Ruiz, C.J. and Castaneda, E. (1983). Effects of the Instrumental Enrichment program on cognitive and non-cognitive factors in subjects of different socio-economic strata. Universidad of Guayana. This was a large Venezuelan replication of the initial Feuerstein study, in a socio-culturally diverse context, with similar positive findings.

Ben-Hur, M. (2000). Feuerstein’s Instrumental Enrichment: Better Learning for Better Students. New Horizons for Learning. [www.newhorizons.org](http://www.newhorizons.org/) (Some recent American studies are reported.)

O’Hanlon, K. (2011). Changing children’s minds: Instrumental Enrichment. A thinking skills program research report, 2004 – 2009. Queen’s University, Belfast. (This extensive study in Northern Ireland with lower achieving secondary level students reports very positive achievement effects in association with Instrumental Enrichment.)

Kozulin, A., Lebeer, J., Madella-Noja, A., Gonzalez, F., Jeffrey, I, Rosenthal, N. and Koslowski, M. (2010). Cognitive modifiability of children with developmental disabilities: A multicentre study using Feuerstein’s Instrumental Enrichment-Basic program. European Journal of Psychology and Education, 19, 1, 107 – 117.

(This is the first major and cross countries study of the Instrumental Enrichment-Basic program, finding positive outcomes which Lebeer considers relate to the quality of the mediation involved- personal communication)

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**New Zealand research:**

**Books:**

Howie, D.R. (2020) Thinking about the Teaching of Thinking: The Feuerstein Approach. London: Routledge (second edition.)

Mentis, M., Mentis, M.T., Dunn-Bernstein, M.J. and Mentis, M. (2008). Mediated Learning: Teaching, Tasks and Tools to Unlock Cognitive Potential. California/London: Corwin Press.

Mentis, M., Dunn-Bernstein, M.J., Mentis, M. and Skuy, M. (2009). Bridging Learning: Unlocking Cognitive Potential In and Out of the Classroom. California/London: Corwin Press.

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**Research articles:**

Howie, D.R. (2015). The Feuerstein approach in New Zealand: Building on the past, for the future. Kairaranga,16, 1, 37 – 44. (This article summarises the three early New Zealand research studies carried out by Howie and colleagues, and detailed below. All of these studies showed positive effects with the Instrumental Enrichment-Standard program for cognition, achievement and emotional/motivational functioning. All of the studies were evaluated rigorously with both a group control, and a single subject design to look at individual response to the intervention.

Howie, D.R., Thickpenny, J.P., Leaf, C.A. and Absolum, M.A. (1985).The piloting of ‘Instrumental Enrichment’ in New Zealand with eight mildly retarded children. Australia and New Zealand Journal of Developmental Disabilities, 11, 3 – 16.

Thickpenny, J.P., and Howie, D.R. (1990). Teaching thinking skills to deaf adolescents: The Implementation and evaluation of instrumental enrichment. International Journal of Cognitive Education and Mediated Learning,1, 193 – 209.

Howie, D., Richards, R. and Pirihi, H. (1993). Teaching thinking skills to Maori adolescents. International Journal of Cognitive Education and Mediated Learning, 3, 70 -91.

Buutveld, E. (2016). Feuerstein Instrumental Enrichment in a small rural NZ Classroom/school. (see attached)

McIntyre, K. (2017). Raising self-efficacy through Ipsative assessment and Feuerstein’s Instrumental Enrichment Programme. Chapter 5, in G.Hughes (ed.) Ipsative Assessment and Personal Learning Gain.(see attached)

Pirihi, P., Toomer, P., McAllum, R., Mentis, M., Absolum, M., and Barrar, H. (2016). Kia Piki Te Korero: Step Up the Talk. A research project on the whole school and inclusive use of Feuerstein’s mediated Learning Experience criteria to support teacher talk about learning and thinking.

Smith, B.A. (2016). Differentiating tasks for learners with Autism Spectrum Disorder. This Professional Inquiry project looks at how Feuerstein’s Cognitive Map can support differentiation.

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