The Feuerstein approach in New Zealand : Building on the past, for the future

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ABSTRACT

The Feuerstein approach to the teaching of thinking is highly regarded internationally as an effective programme for vulnerable learners and learners with special educational needs. This paper describes this approach.

The need for this approach in New Zealand is discussed, including children's rights to it, and the New Zealand National Curriculum requirements. This is followed by an analysis of how the approach meets international criteria for an effective programme for the teaching of thinking.

The author's early New Zealand research on the Feuerstein Instrumental Enrichment programme, to build a strong evidence-base for future use of the approach, is described in some detail, and her current New Zealand research project on best-practice with the inclusive and more whole-school integrated use of the Instrumental Enrichment programme is touched upon.

Finally, some guidelines are outlined for the effective use of the Feuerstein approach in New Zealand now and in the future.

Position Paper

Key words: Feuerstein

The need for the approach in New Zealand

Under the United Nations Convention on the Rights of the Child (1989) and the United Nations Convention on the Rights of Persons with Disabilities (2006), our country is required to not only ensure an inclusive education system at all levels, but ensure that each child with a disability has a right to the development of their "personality, talents and creativity, as well as their mental and physical abilities to their fullest extent" (United Nations Convention on the Rights of Persons with Disabilities, 2006, Article 24). The use of the Feuerstein approach can play an important part in achieving this right for every child as it is unique among the leading international interventions for the teaching of thinking in addressing the needs of children with challenges in their learning.

New Zealand is one of the world leaders in having within *The New Zealand Curriculum* (2007) a requirement for each school to have a generic teaching of thinking as the first key competency, with the key competencies in general seen as a vision for 'creating a vibrant, refocused local curriculum that met their [the schools'] students' learning needs (Hipkins, Bolstad, Boyd and McDowell, 2014, p.6). In his recent paper which discusses the Feuerstein approach, one of the world leaders on metacognition and the teaching of thinking, Professor Robert Sternberg, states that the Feuerstein approach is unique in having associated with it both an assessment tool (The Learning Potential/ Propensity Assessment Device) and a cognitive training tool (The Instrumental Enrichment programme) making it particularly ready for, and appropriate to, being used in educational practice. He states that, in his view, Feuerstein, Piaget and Vygotsky, along with perhaps Luria, stand alone in the scope and power of their contributions to the teaching of learning and thinking.

New Zealand is also a world leader in its inclusive legislation and educational policy for children with special educational needs (Howie, 2010). We have a strong commitment to provide interventions, and this includes programmes for the teaching of thinking, in ways which are inclusive and which meet the Treaty of Waitangi partnership commitments. We also encourage an evidence-based approach to new developments, and so it is important to look at the early research work with the Feuerstein approach in New Zealand, including that carried out with Maori teachers and students at Nga Tapuwae College (Howie, Richards and Pirihi, 1993).

Recent work on the brain through brain imaging and other techniques has revealed that brain functioning is more modifiable than has been previously thought, and this has enhanced interest in the approaches to the teaching of thinking which have as their aims the modification of brain functioning. As early as the 1970s, Reuven Feuerstein, without then the brain research to back up his vision, put forward the idea of

'structural cognitive modifiability', with a focus on how an active-modificational approach can modify the way individuals can learn and think, rather than a passive-acceptant approach, particularly where this saw intelligence as a fixed and unchanging ability or trait. Both of the key tools developed for assessment and enhancement of thinking by Feuerstein and his team build on the central importance of Mediated Learning Experience whereby the mediator (parent, teacher, peer, etc.) comes alongside the learner and makes the stimuli for learning accessible and meaningful to the learner. It involves the kind of interaction and partnership with the learner which a Vygotskian approach also supports, and addresses the learning and thinking process, with both its cognitive and motivational aspects. It is an approach which does not focus just on what is in an individual's brain, trying to 'fix' that, but on the whole complex interactional process involved in the teaching and learning of thinking.

Since a visit in 2014 to New Zealand by Rabbi Rafi Feuerstein (the son of Professor Reuven Feuerstein, who died earlier in 2014), funded by the Gaze Foundation, there has been an upsurge of interest in the use of the Feuerstein approach here. Many teachers, and especially Resource Teachers: Learning and Behaviour, are now training in both of Feuerstein's key tools - the Instrumental Enrichment programme for the teaching of thinking, and the Learning Potential/ Propensity Assessment Device. It is important that their training and knowledge is informed by the New Zealand research evidence on the use of the Feuerstein approach here. Even before this visit, there were developments in New Zealand pointing the way to the whole school and inclusive teaching of thinking using the Feuerstein approach.

I published a commissioned book in 2011 called *Teaching Students Thinking Skills and Strategies: A Framework for Cognitive Education in Inclusive Settings.* In that book I put forward a three-tiered model for the teaching of thinking, with tier one high-quality teaching of thinking for all, tier two further small group work for those with shared learning strengths or needs, and at the tier three level more individualised support for those with more complex learning needs. The book examples research-backed practices with a large number of approaches to the teaching of thinking - as appropriate at each tier level - and covers the use of the Feuerstein approach at each tier level. The book paid careful attention to cultural issues.

I subsequently obtained a grant from the New Zealand Commission for UNESCO to set up a pilot study in two Auckland schools with unique populations of more vulnerable learners, to look at a plan for implementation and evaluation of such a whole school approach, including the Feuerstein approach as part of their whole school teaching of thinking. The idea was not that all teachers used the Feuerstein Instrumental Enrichment programme, but rather that the school identified the ways in which the Feuerstein approach could be best used to meet the needs of all of its learners. I am currently developing a New Zealand-wide research project which will look at best-practice in the inclusive and more whole school integrated use of the Feuerstein approach.

Peter Coleman, in his 2011 Kairaranga article 'Special Education 2000 Policy : Our Leaky Home', comments that "We are aware that there is a chasm between the research evidence for what should work and the efficacy of this in practice. Often it is not the intervention itself which is the problem, rather it is the fidelity of its implementation and the quality and quantity of support that is provided" (p.21).

What is the Feuerstein approach?

The Feuerstein approach is an approach to the teaching of thinking developed with a particular concern for more vulnerable learners, whatever the cause. International attention was drawn to the approach as early as 1977, when Professor Peter Mittler, who continues to be an international leader in inclusive education, edited volumes of the Washington Congress of the International Association for the Scientific Study of Mental Deficiency, including two papers given by Professor Reuven Feuerstein and his colleagues. This was followed by a landmark paper by Kaniel and Feuerstein (1989) in the Oxford Review of Education, which detailed the value of Feuerstein's Instrumental Enrichment programme for cognitive enhancement for children with learning difficulties.

Feuerstein, a Romanian Jew, had been given the responsibility of addressing the needs of children having difficulty in adjustment to schools in Israel, following the Holocaust, and suffering from trauma, dislocation, and deprivation. These children were also from widely-differing cultural contexts. He first developed his internationally-used Learning Potential Assessment Device (Feuerstein, Rand and Hoffman, 1979) for the more dynamic assessment of cognitive abilities and needs. In this first book on this assessment tool (it has been replaced by a 2002 edition by Feuerstein, Feuerstein, Falik & Rand) he makes a still extremely valid criticism of traditional intelligence testing, particularly in relation to the negative effects of the labelling and prediction associated with such testing and the concept of a static I.Q.

He developed and presented an alternative, more dynamic, assessment approach, involving first testing,

then careful mediation by the assessor to explore learning strengths and needs, and how these could best be met by a very participatory social interaction focusing on teaching cognitive strategies and skills in the learning process, followed by retesting. His approach still stands out from other forms of dynamic assessment for its focus on mediation which is unfettered by narrow rules, but flows in a mediation interaction which is characterised by partnership, reciprocity, and empowerment of the learner (Greenberg and Williams, 2002). Even in relation to this assessment tool, Feuerstein was against any quantification of so-called 'potential', rather wanting to identify mediation processes which would support the unique learner strengths and needs. This is reflected in a recent change of title of this tool, now called the Learning Propensity Assessment Device, and called this in the updated (2002) book on the tool.

This Learning Potential Assessment Device (LPAD) is generally used internationally for the individual assessment of very complex learning needs, and is not a requirement for use of the Instrumental Enrichment cognitive enhancement programme. There is a group LPAD alternative which can be used for exploring needs and informing intervention within the classroom context.

Feuerstein then developed his cognitive enhancement programme, Instrumental Enrichment, to address the kinds of learning needs which were being identified in the use of the LPAD. This programme is based on his theory of Mediated Learning Experience, providing, in a systematic way through differing modalities, the mediation needed for efficient, independent, cognitive functioning. This theory of Mediated Learning Experience parallels closely Vygotsky's socio-cultural theory, which is widely followed in New Zealand schools. There are similar emphases by these two leaders in cognitive enhancement on the crucial role of the social and cultural embeddedness of thinking, of the human mediator in enhancing such thinking, be it parent, teacher or peer, and on the importance of scaffolding learning in each individual's learning processes. Both theorists were optimistic about the possibility for change in an individual's learning, and Feuerstein places a belief in such modifiability as central to his approach. Both saw the social and cultural environment as of key importance, with Vygotsky wanting culturally-unique characteristics and strengths to be recognised in cognitive assessment and enhancement (Sutton, 1988), and Feuerstein defining 'cultural deprivation' as the situation where a child is deprived of mediation of their own unique cultural values and meanings.

Feuerstein's Instrumental Enrichment (FIE) programme is made up of 14 'instruments' or tools, carefully constructed to correct difficulties in the thinking process, and all requiring trained mediation. All of the instruments aim at developing the cognitive and metacognitive processes needed to solve problems. For example, the first instrument, the 'Organisation of Dots', uses a novel non-verbal series of pages of dots embedding figures needing to be found according to a set of rules as an instrument to explore the metacognitve self-management (executive) learning and thinking skills which help the learner to organise their thinking. The early 'Comparisons' instrument and the later 'Categorisation' instrument build key abstract verbal comparative thinking which underpins all learning and thinking. As the Instrumental Enrichment programme is unique in its aim of producing 'structural cognitive modifiability', it is designed to be given intensively over at least two years, allowing for the new thinking processes to be embedded and generalised to new learning. Another unique feature of this programme for the teaching of thinking is its strong focus on the motivational and emotional needs of the learner, which are integral to autonomous learning. The first 1980 book, *Instrumental Enrichment; An Intervention Program for Cognitive Modifiability* (Feuerstein, Rand, Hoffman & Miller) has been updated in 2006 (Feuerstein, Feuerstein, Falik & Rand), and the new book describes the programme and research with it.

In 1983 an eminent cognitive psychologist, Professor Sternberg, (who has taken a leading role in research into metacognitive processes/components), published an important paper called 'Criteria for Intellectual Skills Training'. These criteria include the following, and comment is made about how each is met by the Feuerstein Instrumental Enrichment programme:

1. The programme should be theoretically based – FIE is based on the theory of Mediated Learning Experience.
2. The theory should be an information-processing one – my 2003 book draws parallels between Sternberg's information-processing metacomponents and Feuerstein's input-elaboration-output phases (Howie, 2003a, p.36).
3. The underlying theory of intellectual performance should be socio-culturally relevant to the individuals who are exposed to the training programme based on the theory and I discuss such socio-cultural relevance in my New Zealand research with the programme with Maori adolescents and their Maori teachers (Howie, 2003a).
4. The programme should provide explicit training in both executive and non-executive information

processing – the FIE instruments are carefully structured to address both cognitive and metacognitive processes.

5. The programme should be responsive to the motivational as well as to the intellectual needs of the students it trains – Sternberg (2015) comments on the importance of Feuerstein's attention to these needs, as the FIE programme is often used with learners who have experienced years of academic failure.
6. The programme should be sensitive to individual differences – all of the FIE evaluations carried out by my research partners and myself in New Zealand have used both a group control design, and single subject research design, in order to explore how each individual responds uniquely to each component (instrument) of the programme.
7. The training should furnish links between the training it provides and real-world behaviour – all the early New Zealand training for the use of FIE work was done by New Zealand authorized trainers able to make these links, so vital to an ecologically-embedded intervention.
8. The programme should receive careful empirical evaluation that assesses both durability and transferability of training, and the evaluation should assess facets of the programme as well as the training programme as a whole – the research evaluations of FIE in Auckland by my colleagues and myself addressed all of these requirements, and are unique in the systematic way they assessed the impact of the facets of the programme.
9. The claims made for the training programme should be modest, at least at this point of time. Even this much later, with many international, and our own New Zealand research projects attesting to the value of the Feuerstein Instrumental Enrichment programme, the demands of embedding such a programme with its expert mediation and bridging requirements over several years suggest that claims made need to be considered and informed by both the fullest possible understanding of the aims of the programme, and careful study of the research evidence.

The early New Zealand evidence base in the use of Feuerstein's Instrumental Enrichment programme

The Feuerstein approach was first 'fostered' in New Zealand by myself, and professional colleagues, from the late 1970s. I had completed my doctoral study on the imitative learning of children with severe learning disabilities, supervised by Dame Marie Clay. This was followed by several years as National Advisor with the New Zealand Society for Persons with Intellectual Handicap before I joined the Department of Education at the University of Auckland, and gained a Churchill Scholarship for study of the Feuerstein Instrumental Enrichment programme, with Professor Reuven Feuerstein and his training team in Jerusalem. Professor Feuerstein gave his blessing to me to carry out a series of rigorous research evaluations of Instrumental Enrichment in New Zealand. These studies, form the key New Zealand research evidence base for the use of Instrumental Enrichment in New Zealand.

The first study was carried out with learners attending a special class for children with mild to moderate learning disabilities at Kowhai Intermediate School (Howie, Thickpenny, Leaf & Absolum, 1985). Over a two-year period, five instruments of the Instrumental Enrichment programme were taught intensively, in a whole-class way, with supplementation and extra support to individual students as needed. This support was provided without 'withdrawal' of children from the whole-class setting. The research report detailed first the shifts on the baseline 'instrument' measures devised to assess changes in problem-solving on each instrument, because this was considered a more important measure than that of the Wechsler traditional measure of intelligence (also, the use of the Wechsler Scale can be considered inconsistent with Feuerstein's critique of such traditional measures of intelligence, but at that time there were few alternative measure of cognitive functioning standardised for use in New Zealand, and this measure was an important one used by educational psychologists in New Zealand to determine special class placement). There were clear links between each individual's pre-intervention Wechsler measures and gains made on the 'Instruments'. For example, 'Student D was a 12-year-old Pacific Islands boy, who, before the programme, had a verbal WISC intelligence quotient of 64 (which may well have been influenced by his language background) and performance WISC intelligence quotient of 81 … he had a Burt reading age of 5.7 years and a California Test of Personality score of 10 percentiles - well below the average … this student was functioning at a very low level on the Organisation of Dots skills prior to beginning this instrument, which is the first in the programme. However, he made an interesting gain in these metacognitive skills in association with the training on the Organisation of Dots instrument … he managed to overcome his early difficulties in Orientation in Space, and by the end of the programme was achieving complete success on this instrument … Student D's more verbal conceptual skills on the Comparisons task, even before being taught on that instrument, were higher than one would have expected from his verbal WISC intelligence quotient of 64. Some rather patchy verbal performance on the Comparisons instrument during training was rectified by the end of the full

programme, when he had been exposed to the more advanced instrument of Categorisation … After the programme was completed, student D showed gains of 9 verbal IQ points and 19 performance IQ points, which were maintained on follow-up study. These gains placed him outside the range of general cognitive ability considered appropriate at that time for special class placement (Howie, 2003a, pps.99-101).

The eight experimental subjects completing the two-year intervention significantly increased in intellectual functioning as indicated by the Wechsler-R Full intelligence quotient changes from pre – to post-intervention, with the mean increase of 9.3 points. There was further increase of IQ at the follow-up study. This contrasted strongly to the pattern prior to intervention, where the mean decline for all subjects from the years of their first measurement with this Wechsler Test to the pre-intervention Wechsler measure was 7.4 full scale IQ points.

Another pertinent finding was the reading gains made by experimental subjects when some of them moved to a secondary school 'Experience Class' immediately after intervention, and received a well- constructed reading programme in that class. There was a pattern of gains by those who had received Instrumental Enrichment, while control subjects matched with them (and who had come from another special class which did not receive Instrumental Enrichment) did not. For example, student D, discussed above, made a reading gain from below 6 years to 6 years 4 months over this 6 months follow-up period, while his control-matched subject made a loss from 8 years 10 months to 8 years 6 months.

These findings give support to the Feuerstein claim of cognitive modifiability as an outcome of the Instrumental Enrichment programme, and suggest that the programme is helpful in building the underpinning cognitive and metacognitive skills necessary for more enhanced reading achievement.

The second study was carried out as a thesis research project by Thickpenny, which I supervised (Thickpenny & Howie, 1990). It was carried out with children with profound hearing disabilities entering their first year of high school at Kelston School for the Deaf. They were of mixed ethnic background, with five of New Zealand/European ethnicity and five of Maori and Pasifika ethnicity. As with the first study, it used both a group control and a single subject research design. The latter proved particularly useful in addressing the ethical concern of parents at the school that all children receive the programme. For the first year, one class received the programme (Group one) and continued with it through their second year, while the second class was phased in as the control group, not receiving the programme in the first year, so as to act as the control group, then receiving the programme for one year only, in the second year of the project. The study gives some interesting insights into the role of length of the programme intervention for near and far generalisation.

The significance of shifts on a wide range of measures of ability was looked at, so that there was not reliance only on a traditional measure of intelligence. 'Group One' (the experimental group receiving two years of Instrumental Enrichment) made a significant gain on both the Picture Arrangement and Picture Completion subtests of the Wechsler-R scale, while Group Two (the control group) did not. Results for the Matching Familiar Figures Test indicate that Group One (experimental) subjects displayed a significant decrease in error scores while Group Two (control) subjects did not' (1990, p.201).

The probes in the single subject assessment of the more verbal instrument implemented the Comparisons instrument, show a remarkable gain in this verbal conceptual instrument. All subjects were initially performing at a very low level on this instrument's baseline assessment tasks at pre-intervention, then shifted with intervention on the instrument to the higher levels of scoring, and maintained that higher level in post-intervention follow up. This applied to both Group One and Group Two subjects, so was irrespective of the length of the intervention.(This assessment was of 'near' generalisation.)

The Gates Reading Test assessments show that up until 1979 (the date the intervention started) all but one subject were making minimal or no increases in reading age with each successive year. Three (of the ten) subjects made significant gains in reading age in association with Instrumental Enrichment intervention. This gain was spread across individuals in both Group One and Group Two, so was irrespective of length of intervention.

The third study was carried out with Maori students and their Maori teachers at Nga Tapuwae College (Howie, Richards & Pirihi, 1993). Because Maori and Pasifika students had responded particularly well to the programme in the previous studies with Instrumental Enrichment, it was offered to South Auckland schools with large Maori populations. NgaTapuwae College took up the challenge, saying that they were failing with their lowest-performing Maori students. I worked in partnership with the Maori teachers who were teaching these students, and did two full two-year interventions with Instrumental Enrichment with two third form classes i.e. the project lasted four years.

The students were taught Instrumental Enrichment as the whole lowest 'stream' class, with support offered individually within that whole-class approach.

We looked at significance of shifts on the raw scores of the Wechsler-R test of Intelligence, not wanting to use inappropriate normed procedures, as in the traditional use of this measure. The raw scores did provide a comparative pre- and post-measure across a wide variety of types of cognitive tasks. As an example of one of the Wechsler results, "Four of the eight experimental subjects made a significant positive change on the Similarities subtest as defined by Wechsler (1974) … For the four experimental subjects available at follow-up, three had increased their Similarities raw score over the post-intervention score. In contrast, none of the seven control subjects made a significant positive change" (Howie, Richards & Pirihi, 1993, p.82).

In terms of the single subject research design outcomes, all of the experimental subjects moved with intervention on the Organisation of Dots instrument to perform at the highest levels by the end of this instrument intervention. By the end of the Comparisons Instrument intervention, most of the subjects were performing at the higher levels of the tasks. The Orientation in Space task proved to be difficult for three of the subjects, but one of these made a rapid gain with intervention, one had already started to gain in association with earlier instruments, and one was still struggling at the end of the Orientation in Space instrument. This gives us valuable information about the need for greater work on this instrument for two of the students who, prior to intervention, had shown specific difficulties with orientation in the Wechsler Block Design pre-test measure used.

This study found generalisation to error correction in reading running records by almost all of the experimental subjects. It also explored the meanings of the use of this instrumental enrichment method for the Maori teachers, using an informal 'grounded theory' approach. Of particular interest were the many comments the Maori teachers made about the contribution they thought the programme was making to their students' language needs, including during the Organisation of Dots instrument work. The teachers often commented on peaks of performance in their instrumental enrichment students' work, with comments suggesting a change in teacher attitude towards a student's ability as being important in relation to changes made by the students. The teachers appeared to enjoy using the programme and generalising from it, in terms not only of their own Maori culture, but into their other ordinary lessons with these students.

The final major study was carried out with adolescents and young adults attending workshops run by the Auckland Sheltered Workshop organization (Howie, 2003b). The learners had both cognitive and social/emotional needs, and the complex and large project sought to develop and enhance real-life problem-solving and decision-making, in the form of self-advocacy. The work involved both a 'mild' mediation, with assessment using a dynamic assessment approach with both the more-cognitive Ravens measure, and a self-advocacy measure developed to look at self-advocacy issues of importance to these learners. The 'full' intervention used some of the principles arising from the Feuerstein Instrumental Enrichment approach. The results were very encouraging but complex, as the mild intervention appeared to be interacting with the full intervention. A matched-pair design was used. 'The young people who received the dynamic assessment/minimal training in self-advocacy problem-solving achieved significantly higher gains in outcome scores (self-advocacy scores) than those who did not receive this training … The two groups who received full mediation, which incorporated more extensive training in planning strategy for real-life problem-solving, showed the biggest gains in planning strategy compared with the two groups who did not receive the full intervention. The gains showed up even for individuals who were under stress at the time of the final intervention, suggesting that such learning can be maintained over time and in the face of emotional difficulties' (Howie, 2003a, p.129). These studies are all described, along with a careful introduction to the Feuerstein approach, in *Thinking about the Teaching of Thinking* published by the New Zealand Council for Educational Research (Howie, 2003a).

Following further study at Feuerstein's Institute in Jerusalem and supported by a travel award from the New Zealand Royal Society of Scientists, my research colleague John Thickpenny and I founded the Australasian Institute for Learning Enhancement in Auckland in 1996. It was an Authorized Training Centre (ATC) for training in the Feuerstein Instrumental Enrichment programme, with the aim of both training and developing the use of the programme in culturally- and contextually-appropriate ways in New Zealand, Australia and the South Pacific. Feuerstein spoke at the launch of the Australasian Institute for Learning Enhancement while giving presentations at an international conference in Auckland, hosted by the Brownlow publishing company.

It was hoped that the new New Zealand Curriculum, brought in by the Labour Government towards the end of its last term in 2007, with its teaching of thinking as a key competency, might encourage the whole-school teaching of thinking, including the

use of Feuerstein's approach as part of that whole-school and inclusive requirement. However, under the National Government, there needs to be more acknowledgement by the Minister of Education of the key role that the teaching of thinking could contribute to her ministerial priorities of raising the achievements of our most vulnerable learners, and enhancing quality teaching/learning processes. The Feuerstein criteria for Mediated Learning Experience match closely the characteristics of effective pedagogical practices as outlined in the New Zealand Curriculum.

Building the future

I would like to see systematically developed in New Zealand, and rigorously evaluated, modes of delivery of the Feuerstein approach which are characterised by the following :

1. Fidelity to the original aims, tools and programmes of the Feuerstein approach. This includes the rigorous use of the full Instrumental Enrichment programme for the length of time required to realise its full modification effects.
2. Contextualisation of the tools and programmes for our unique New Zealand educational and cultural context. New Zealand leads the world in its socio-ecological approach to providing support to our more vulnerable learners, and this matches well with the emphasis which both Feuerstein and his son have placed on the importance of the wider modifying learning environment (Howie, 2003a, 2011).
3. Implementation of the Instrumental Enrichment programmes (FIE-Standard and FIE-Basic) in as inclusive a way as possible. This means minimising labelling of children and withdrawal of children from ordinary classrooms in order to receive the programme. Rather, in line with our inclusive education approach, the programme should be taught on a whole-class basis, with further individualised support as needed provided in that whole-class context by the already available inclusive support services, whenever possible. The research evidence on the Feuerstein Instrumental Enrichment programme affirms the value of the programme being taught by the learners' ordinary classroom teachers for maximum transfer and generalisation opportunities.
4. Implementation of the Instrumental Enrichment programmes in ways which address the New Zealand Curriculum's requirement for the key competencies, including the teaching of thinking, to be taught as an integral part of the whole-school community, and meeting the needs of that unique learning community.
5. Ensuring that all those working with the tools and programmes, no matter what the leadership, teaching, parent, peer or learner role, work in partnership, and demonstrate essential qualities of that partnership which are fundamental to the Feuerstein programme, such as mutuality and reciprocity, and empowerment.
6. Ensuring that the tools and programmes are available first to those who most need them, irrespective of family wealth. This has always been the wish and intention of Feuerstein. Since his visit to New Zealand in 1996 when he met Maori leaders associated with the New Zealand work on their marae, he also took a keen interest in the use of the Feuerstein programme for Maori learners.

CONCLUSION

This paper has outlined the ways in which the Feuerstein approach to the teaching of thinking has been used in the past in New Zealand, and suggested ways in which it could be used in the future, to build on that evidence base. The early work which was done in New Zealand was carried out with the blessing of the developer and then leader of the approach, Professor Reuven Feuerstein, in the spirit and vision which he had for its availability to the most needy learners in our society, with the rigour in implementation which success with the programme requires, and with both innovative and rigorous research evaluation. It is to be hoped that future use of the Feuerstein approach continues its use in ways which Feuerstein and we, as New Zealanders, can be proud of.

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