



## Move to Learn 2005 Research

In working mainly with individual children with learning difficulties over a period of 30 years we have found that, in many cases, completion of a set of specially designed developmentally sequential movements has appeared to be enough to help these children become able to gain better brain integration and become ready to learn. After they had mastered and practiced these movements for a period of time they were often able to catch up academically with little extra help.

The movements comprised of a number of basic floor exercises that mimic movements made by babies and toddlers and appear to be essential in developing neurological pathways for learning.

No formal training is needed to teach students to do these movement sequences. All necessary instruction is included on the *Move to Learn* DVD, and the only equipment required is floor space and a DVD player and TV. It takes relatively little time each day to implement the program effectively (15 mins. Max).

We have seen the results in the lives of the children we have taught, but the time has come to get the research to support what we *know*.

To this end, *Move to Learn* has undertaken to support a research project that will determine if these specific movement sequences are as effective in bringing a child to learning readiness as they appear to be.

They are so simple to do and to teach, and inexpensive to implement. If we could get evidence of their effectiveness, then the whole world could become literate – poor and rich, rural and urban.

Following is a report on what has been discovered thus far.

The results of this PRELIMINARY STUDY OF THE IMPACT OF THE MOVE TO LEARN (MTL) DEVELOPMENTALLY SEQUENTIAL MOVEMENTS ON SCHOOL PERFORMANCE were very encouraging with statistically significant improvements in reading, handwriting, a self portrait and classroom measures of behavior and performance.

These results were quite remarkable.

### **Purpose of the Study**

- To investigate the impact of the *Move to Learn* developmentally sequential movements, (hereafter called *MtL Sequences*), on the children's school performance as measured by:
  - Non Word Reading Test
  - Handwriting: copying five nonsense words

- Handwriting of sentence
- Goodenough Draw-a-Man Test
- Classroom performance skills rating scale

### **Participants**

As the Study was prepared over the course of one school term, teachers were invited to participate only through our newsletter, the *Missile*.

- Children were not to have any prior experience with MtL Sequences
- Participating teachers' only training was to be done by watching the *Move to Learn* DVD
- The Sequences were only to be undertaken with the students for two blocks of 5 weeks.
- All students in the classes were to participate.

Dr Christine Chapparo, OT, Senior Lecturer School of Health and Leisure Sciences at Sydney University, in Australia, structured the Study with Barbara Pheloung and Stacey LaGreca.

### **Method**

- Teachers gathered data on the target measures four times over Terms 3 and 4, 2005:
  - Beginning Term 3
  - *Whereupon 5 weeks of no MtL Sequences were done*
  - Middle of Term 3
  - *MtL Sequences commenced*
  - End of Term 3
  - *MtL continued in Term 4 for 5 weeks*
  - Middle Term 4

The first period of no intervention was an important addition to gauge maturation or progress that happened naturally within the classes and gives a good baseline to measure the effect of the addition of the MtL Sequences for the students.

### **SAMPLE**

Total number = 209

Pre-Primary = 18

Kindergarten = 59

Year 1 = 102

Year 2 = 30

Mean age = 5.7 years

Gender – approximately equal numbers of boys and girls

- 13 Schools
  - Australia – New South Wales, South Australia, Western Australia
  - New Zealand

- South Africa
- 7 Country
- 6 major cities
- 3 government schools
- 10 private

## Findings

### RESEARCH QUESTION 1

#### GRADED NON-WORD READING TEST (Snowling et al, 1996)

- Beginning Term 3
  - *no MtL Sequences were done*
- Middle of Term 3
  - 1<sup>st</sup> Measure – no significant difference ( $p > .05$ )
  - *MtL Sequences then commenced*
- End of Term 3
  - 2nd Measure – statistically significant difference ( $p < .001$ ) \*
  - showing immediate increase in reading performance when MtL started
- Middle Term 4 - *MtL continued in Term 4 for first 5 weeks*
  - 3rd Measure – statistically significant difference ( $p < .001$ )
  - showing further significant increase in reading performance

\* ( $p < .001$ ) is a statistical measure used that indicates that there is less than a 1 in 1000 chance of there being an error in this finding.

### RESEARCH QUESTION 2

What is the difference in performance of 71 Grade One children on 5 word handwriting test between data collection points

- Beginning Term 3
  - *no MtL Sequences were done*
- Middle of Term 3
  - 1<sup>st</sup> comparison Measure – a statistically significant difference ( $p = .001$ )
  - indicating improvement before MtL intervention
  - *MtL Sequences then commenced*
- End of Term 3
  - 2nd Measure – no significant difference ( $p > .05$ )
  - showing no change after MtL started
- Middle Term 4 - *MtL continued in Term 4 for first 5 weeks*
  - 3rd Measure – statistically significant difference ( $p = .003$ )
  - showing significant increase in handwriting after extended MtL intervention.

### RESEARCH QUESTION 3

What is the difference in performance of 158 Grade One and Two children on sentence handwriting between data collection points:

- Beginning Term 3
  - *no MtL Sequences were done*
- Middle of Term 3
  - 1<sup>st</sup> comparison Measure – no significant difference ( $p > .05$ )
  - *MtL Sequences then commenced*
- End of Term 3
  - 2nd Measure – statistically significant difference ( $p < .001$ )
  - showing immediate increase in sentence writing performance for both quality and time scores when MtL started
- Middle Term 4 - *MtL continued in Term 4 for first 5 weeks*
  - 3rd Measure – statistically significant difference ( $p = <.001$ )
  - showing continued significant improvement.
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#### RESEARCH QUESTION 4

What is the difference in performance of 101 children on Goodenough-Harris Draw-a-Man Test between data collection points:

- Beginning Term 3
  - *no MtL Sequences were done*
- Middle of Term 3
  - 1<sup>st</sup> comparison Measure – no significant difference ( $p > .05$ )
  - *MtL Sequences then commenced*
- End of Term 3
  - 2nd Measure – no significant difference ( $p > .05$ )
- Middle Term 4 - *MtL continued in Term 4 for first 5 weeks*
  - 3rd Measure – statistically significant difference ( $p = <.001$ )
  - perhaps indicating that treatment effect became more apparent at the end of the MtL program.

#### RESEARCH QUESTION 5

What is the difference in performance of 101 children on teacher ratings of classroom skills between data collection points

##### Teacher Ratings Of Classroom Skills (Steer, Jamieson, Chapparo 2001)

- *A non-standardised five point rating scale that describes teacher perceptions of children's:*
  - *Fine motor and postural skills*
  - *Planning and organization*
  - *Attention*
  - *Memory*
- *During classroom activities.*
- Beginning Term 3
  - *no MtL Sequences were done*
- Middle of Term 3
  - 1<sup>st</sup> comparison Measure – no significant difference ( $p > .05$ )
  - *MtL Sequences then commenced*

- End of Term 3
  - 2nd Measure – statistically significant difference ( $p < .001$ )
  - showing immediate increase in performance after MtL started
- Middle Term 4 - *MtL continued in Term 4 for first 5 weeks*
  - 3rd Measure – statistically significant difference ( $p < .001$ )
  - indicating that treatment effect did not plateau after first increase in performance.

### **Summary**

Move to Learn Sequences/Program appeared to have an impact on most measures of school performance in this study in comparison to non-intervention.

### **Limitations of the study**

- Not a randomized controlled study
- Changes measured may have occurred as a result of other variables
- Teachers were rating classroom skills, therefore may have been biased by knowledge about the study.

### **However**

- Results lend support for continued research into the effects of this program
- Teachers were able to carry out the program in their classes and without specialized training
- The effects of the program were demonstrated on typical children

### **The future**

- Future studies might consider:
  - Use of a randomized control design
  - Target larger numbers of children of similar age
  - Investigate differences in program impact on typical versus learning disabled children

Barbara, Chris and Stacey would like to give their thanks to the teachers and to the children who were so willing to participate and learn.

\* ‘statistically significant’, in the above application, means that the improvement that was recorded can almost certainly be put down to only one thing – the 9 sequenced movements.

This is outstanding considering that only instruction the teachers involved received was through the DVD, and that the exercises were only done for 10 weeks, with statistically significant results recorded as early as 5 weeks!