

RESEARCH PLUS EXAMINATION OF SCHOOL RECORDS OF STUDENTS WHO HAVE EXPERIENCED THE FLIPPEN READING CONNECTION

RESEARCH PROJECT CONDUCTED BY:

Linda Werner, Ph.D., Educational Psychologist
J. Patrick Peterson, Ph.D., Clinical Psychologist

PROJECT ENDORSED BY:

Robert Sloat, Ph.D.
Anne Weygant, Ph.D.
Governor Witt, M.D.
Gene Lozier, M.D.
John Henry Martin, Ph.D.
Charles Morrison, Ed.D.

DESCRIPTION OF THE STUDY AND ITS RESULTS:

In order to evaluate the effects of the procedure, twelve SLD students were randomly divided into groups of four students each. One group, labeled "Experimental", consisted of the students exposed to the experimental procedure (The Flippen Reading Connection). A second group, labeled "Control I", consisted of students who received special group instruction, but not the experimental procedure. A third group, labeled "Control II", consisted of students who received no specialized instruction of any kind (they attended their regular classes), although they were allowed group involvement in recreational activities for an amount of time approximately equal to the other groups. Additionally, each group was administered a series of tests both before and after the procedure (the procedure lasted 2½ hours per day for 15 days) so that a measure of change (presumably related to the activities during this time) could be obtained. The Research Plus Examination...of The Flippen Reading Connection

results of these comparisons are depicted in the accompanying tables, but can be summarized as follows.

Of the four tests tapping visual motor areas, the Experimental group showed significant improvement on two measures (Detroit Tests of Learning Aptitude-Motor Speed and Copying Paragraphs for one minute intervals) and also a slight improvement of a third, the Wechsler Intelligence Scale for Children - Revised Coding Section. On the same four measures, the two control groups failed to demonstrate any consistent pattern of change.

Of the two tests reflecting spelling-reading ability (Wide Range Achievement Test - Spelling, and Diagnostic Analysis of Reading Errors) the Experimental group showed significant improvement on both measures and the Control Group I showed some slight improvement on both measures, while Control Group II failed to show any improvement. On the seven measures sampling arithmetic ability, the Experimental group showed very significant improvement on the one written instrument (Wide Range Achievement Test - Arithmetic) while showing moderate to significant improvement on four of the six oral measures. The findings for Control Group I reveal no improvement on two of the oral measures but a slight improvement as reflected on the one written and four remaining measures; and similarly, Control Group II also demonstrated only slight to moderate changes on all the oral instruments, although this group did improve significantly on the written measure. (This improvement, though statistically significant, was 38% of the percent of improvement shown by the Experimental Group.)

On the three measures of reading comprehension, the Experimental group demonstrated very significant improvement on each measure while both Control groups managed only slight improvement in the scores on each; however, on instruments

monitoring only word recognition, the Experimental groups' improvement, while significant, did not exceed that of the Control group in as dramatic a fashion.

Throughout the post testing sessions, the Experimental group exhibited a significant decrease in anxiety, thus increasing their ability to attend and to concentrate for prolonged periods of time.

These results are tentative for they are based upon a small experimental group, but they have some very obvious trends. The experimental procedure seems to affect, in a significantly positive fashion, the visual-motor functioning and processing of learning disabled children. It appears to decrease anxiety and increase confidence and concentration. These gains apparently result in increased written, verbal and reading fluency, better handwriting, a quicker grasp of written math concepts, fewer math mistakes, improved abstract reasoning resulting in better reading comprehension and improved visual memory resulting in spelling improvement.

RESEARCH CHARTS:

VISUAL MOTOR

DETROIT TESTS OF LEARNING APTITUDE – MOTOR SPEED

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	72.25/min.	89.50/min.	23.90
CONTROL I	81.25/min.	88.50/min.	8.90
CONTROL II	79.25/min.	82.00/min.	3.40

WECHSLER INTELLIGENCE SCALE FOR CHILDREN – REVISED (CODING)

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	8.75	9.75	11.40
CONTROL I	7.75	7.00	-9.70
CONTROL II	7.50	9.00	20.00

COPYING PARAGRAPH FROM BOARD

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	3.48	3.69	6.00
CONTROL I	3.13	3.21	2.60
CONTROL II	4.71	5.43	-15.30

COPYING PARAGRAPH FOR 1 MINUTE INTERVALS

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	11.75	15.25	39.00
CONTROL I	17.50	17.50	0
CONTROL II	10.50	11.25	7.10

ACADEMIC TESTING

WIDE RANGE ACHIEVEMENT TESTS – SPELLING

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	8.25	16.50	100.00
CONTROL I	29.75	33.75	13.40
CONTROL II	15.50	15.75	1.60

DIAGNOSTIC ANALYSIS OF READING ERRORS – SPELLING

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	11.00	25.00	136.00
CONTROL I	24.50	34.00	38.00
CONTROL II	4.50	3.75	-16.70

WECHSLER INTELLIGENCE SCALE FOR CHILDREN – REVISED, ARITHMETIC

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	8.25	8.00	-3.00
CONTROL I	7.25	8.25	13.80
CONTROL II	7.50	7.75	-3.30

WIDE RANGE ACHIEVEMENT TEST – ARITHMETIC

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	4.50	12.00	167.70
CONTROL I	7.25	8.25	13.80
CONTROL II	4.75	7.75	63.20

KEYMATH – MISSING ELEMENTS

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	6.75	7.00	3.70
CONTROL I	6.25	6.25	0
CONTROL II	5.25	5.75	9.50

WIDE RANGE ACHIEVEMENT TEST – READING

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	17.00	30.00	76.50
CONTROL I	7.25	8.25	13.80
CONTROL II	4.25	7.75	63.20

WOODCOCK READING MASTERY – WORD IDENTIFICATION

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	10.00	30.00	200.00
CONTROL I	28.50	30.50	7.00
CONTROL II	7.75	9.75	25.80

WOODCOCK READING MASTERY – PASSAGE COMPREHENSION

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	11.75	23.50	200.00
CONTROL I	33.25	38.25	15.00
CONTROL II	12.50	17.75	42.00

WOODCOCK READING MASTERY – WORD COMPREHENSION

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	17.00	33.75	98.50
CONTROL I	48.25	51.25	6.20
CONTROL II	29.50	30.75	4.20

PEABODY INDIVIDUAL ACHIEVEMENT TEST – READING RECOGNITION

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	34.50	42.50	23.20
CONTROL I	28.75	38.00	32.20
CONTROL II	18.50	19.50	5.40

PEABODY INDIVIDUAL ACHIEVEMENT TEST – READING COMPREHENSION

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	34.75	42.75	31.60
CONTROL I	31.75	32.25	1.60
CONTROL II	15.50	15.50	0

PEABODY INDIVIDUAL ACHIEVEMENT TEST – MATHEMATICS

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	36.50	55.50	52.10
CONTROL I	34.50	42.50	23.20
CONTROL II	34.75	45.75	31.60

KEYMATH – MENTAL COMPUTATIONS

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	6.75	8.00	18.50
CONTROL I	7.50	8.50	13.30
CONTROL II	5.25	5.50	4.80

NUMERICAL REASONING

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	8.50	10.25	20.60
CONTROL I	9.75	11.00	12.80
CONTROL II	7.50	8.00	6.50

NUMERICAL REASONING

	<u>PRE</u>	<u>POST</u>	<u>% DIFFERENCE</u>
EXPERIMENTAL	8.50	10.00	17.6
CONTROL I	10.75	10.75	0
CONTROL II	8.00	8.25	3.10