

“Meta Summary of International Phono-Graphix® Research”, paper presented to the HAAN Foundation, 2002

By Erin Duncan

As described by its developers, “Phono-Graphix is a new instructional method that relies on 20 years of research on the origin of reading failure.” (McGuinness, 1996) It is a phonetic-linguistic approach to decoding and encoding that capitalizes on the child’s innate but implicit knowledge of language, integrating phonemic awareness instruction with “explicit instruction in the rationale and structure of writing systems, especially of English orthography.” (McGuinness, 1996) The instruction is carefully designed to teach “the *entire* structure of the alphabetic code in a sequence that is logical *to the child*.” (McGuinness, 1996) All phonologic skills and information are taught in context (in words and in real books), so children understand the relevance of what is taught as well as how to apply it.

The developers’ initial findings (1), published in the Orton Annals of Dyslexia, reveal significant improvement in word recognition and word attack:

(1)

Phono-Graphix™: A New Method for Remediating Reading Difficulties

Published Study: Annals of Dyslexia, Vol. 46, 1996.

Authors: Carmen McGuinness, Diane McGuinness and Geoffrey McGuinness; program developers

Location: Read America’s Clinic, Orlando, Florida

Primary Instructors: the program developers

Type of Instruction: 1-on-1 with parental support

Subjects: 87 children, ages 6-16. (35 had been previously diagnosed as Learning Disabled)

Average Gains (in Standard Scores):

Word Identification	13.70	1.70/instructional hour
Word Attack	19.34	2.57/instructional hour

Table II.

Age	MEAN SCORES ON DIAGNOSTIC TESTS					
	AAT (10)		Blending (15)		Segmenting (63)	
	Intake	Final	Intake	Final	Intake	Final
6-7	4.2	7.4	9.4	14.0	48.4	61.3
8-9	5.2	8.7	11.4	14.9	38.3	61.0
10-16	6.3	9.5	12.2	14.5	41.0	62.3

Maximum scores in brackets.

Average Hours of Instruction: 9.33 hours

The 87 subjects in this study, *all* of the clients at Read America's Reading Clinic over a 2 year period, showed:

- Average Standard Score Gains of 13.7 in word recognition, as measured by the Word Identification subtest of the Woodcock Reading Mastery Test;
- And average standard score gains of 19.34 on Word Attack, a decoding measure.

Further, subjects showed substantial growth in phonemic awareness, as measured by diagnostic testing designed by the developers, including a variation of the Rosner and Simon Auditory Analysis Test (AAT) (1971):

- The data, analyzed separately for different age groups, show substantial growth in the three phonological measures.

Such results are significant, higher and more consistent than many existing, well-respected methods. But what emphatically sets Phono-Graphix apart from other methods is the rate at which these results are obtained:

- The subjects in this study received an average of only 9.33 hours of instruction.
 - 31 of the subjects received 3-6 hours
 - 1 received 15
 - most received just 12 hours of instruction.

This translates into average standard score (SS) gains in:

- Word Identification of 1.7 / instructional hour.
- Word Attack of 2.57 / hour.

The McGuinnesses show in their study, "This is 7 times faster than the ADD program for both Word Identification and Word Attack, 11 times faster than Reading Recovery (six months only), and 50 times faster than Alphabetic Phonics." (McGuinness, 1996)

The speed of growth makes this program dramatically more affordable for parents and schools. But more importantly, as Carmen McGuinness points out, "In a

world where kids move every four years, and programs get canceled with similar regularity, the difference between 12 and 120 or 600 hours can be the difference between saving tens, hundreds, or thousands of children.”

The McGuinness’s study, of quasi-experimental design, shows that Phono-Graphix is not only effective, but it is effective with the later elementary population we are concerned with for the study Dr. Torgesen has proposed (2):

(2)

Table I.

MEANS STANDARD SCORES AND GAINS ON WOODCOCK WORD I.D				
Age	Intake	Final	Gains	Gains/hour
6-7 (31)	89.8	103.0	13.25	1.73
<i>S.D.</i>	12.4	11.39	8.55	1.53
range	63–111	80–132	3–36	.25–8.0
8-9 (27)	86.9	99.7	12.77	1.44
<i>S.D.</i>	14.95	14.69	6.70	1.06
range	47–115	62–122	1–26	.25–4.67
10-16 (29)	82.5	97.6	15.1	1.93
<i>S.D.</i>	19.62	15.92	8.62	1.13
range	42–113	63–117	1–39	.08–3.83
MEAN STANDARD SCORES AND GAINS ON WOODCOCK WORD ATTACK				
6-7	92.8	109.6	16.07	1.81
<i>S.D.</i>	13.03	7.44	10.32	1.03
range	63–111	91–120	1–39	.17–4.2
8-9	88.6	108.5	19.74	2.79
<i>S.D.</i>	14.32	15.07	8.86	2.82
range	54–123	88–151	1–39	.08–13.0
10-16	84.4	106.9	22.21	3.10
<i>S.D.</i>	15.88	15.62	10.88	1.96
range	55–113	76–144	3–52	.25–8.0

- Subjects ages 8-9 (which includes 3rd graders) obtained average SS gains of 12.77 (1.41/hour) in Word Identification and nearly 20 (or 2.79/hour) in Word Attack.
- Older students, including those in the fifth grade, did even better, with average SS gains of just over 15 (nearly 2/hour) in Word Identification and over 22(or just over 3/hour) in Word Attack.

The developers of Phono-Graphix also analyzed data of subjects with severe reading problems (3), those of normal intelligence whose reading scores were in the 70s or below, and actually found the best Word Identification gains with these students:

(3)

Age	Intake	Final	Gains	Gains/Hour
6-7 (5)	70.4	89.6	19.2	3.92
<i>S.D.</i>	<i>7.99</i>	<i>6.35</i>	<i>8.58</i>	<i>2.39</i>
<i>range</i>	<i>63-79</i>	<i>80-96</i>	<i>12-32</i>	<i>2.0-8.0</i>
8-9 (5)	67.4	81.0	13.6	1.34
<i>S.D.</i>	<i>11.87</i>	<i>11.71</i>	<i>6.91</i>	<i>.58</i>
<i>range</i>	<i>47-79</i>	<i>62-95</i>	<i>4-23</i>	<i>.33-1.9</i>
10-16 (9)	59.5	86.8	23.0	2.50
<i>S.D.</i>	<i>13.84</i>	<i>11.73</i>	<i>7.95</i>	<i>1.15</i>
<i>range</i>	<i>40-78</i>	<i>63-98</i>	<i>13-39</i>	<i>1.1-3.8</i>
TOTALS	65.8	85.8	18.6	2.51
<i>S.D.</i>	<i>11.23</i>	<i>9.93</i>	<i>7.81</i>	<i>1.37</i>
<i>range</i>	<i>40-79</i>	<i>62-98</i>	<i>4-39</i>	<i>.33-8.0</i>

- The 19 subjects of this profile gained an average of 18.6, or 2 ½ / hour.

Clearly, this initial report on Phono-Graphix is promising. But importantly, can the techniques be readily communicated? The McGuinness' report, in their Orton Annals study, that the data include 4 students taught by a new clinician with one week's training (35 hours). She obtained results comparable to those of the developers. The remaining data I will present—provided by published papers as well as field studies sent in by real teachers using the program in everyday circumstances—come from researchers and instructors who are independent from the developers of the program, showing that it is, indeed, easily transferred to other instructors.

With the publication of Read America's parent manual, Reading Reflex, in the US (by Simon & Schuster) and in the UK (by Penguin), word has spread rapidly. Many parents and teachers teach themselves the method using Reading Reflex, which can be purchased in bookstores for less than \$15. Read America also offers certification in the method and has been training teachers to deliver Phono-Graphix since 1997 (4):

(4)

There are now trained teacher members and licensed trainers in:

US

UK

Canada
Mexico
Ireland
Australia
New Zealand
South Africa
Kuwait
Saudi Arabia
Israel
France
Spain
Cyprus
Singapore
Japan
Hong Kong.

Classroom teachers and clinicians can be certified through either the 35-hour course or a 3-6 month internship program. There are now trained teacher members and licensed trainers *throughout the world*, in 17 different countries. Carmen McGuinness tells us, "Phono-Graphix has made its way into every audience that addresses children's needs: parents, teachers, volunteers, and clinics. It is the affordability and ease of the program that has allowed this growth to happen."

Users of the program report consistent, rapid growth of their students, even under less-than-ideal teaching conditions. I certainly can't present all of the field studies and the qualitative results they contain. I will instead try to demonstrate the program's flexibility by presenting the quantitative highlights of the range of instruction models and student types it has been shown to accommodate.

Derrington of the Bristol Education Centre, for example, reports on an early intervention program conducted in the UK (5):

(5)

Early Literacy Support Pilot: Evaluation Report

Author: Sue Derrington; Project Coordinator

June 2001

Location: Bristol City LEA, UK (13 participating schools)

Primary Instructors: Learning Support Assistants

Type of Instruction: small groups of 4-6 students

Subjects: 141 year 1 children (lowest 20% with language and reading screening)

Instruction Hours: daily, 30 minutes sessions for 12 weeks. (Over a six month period)

Average Gains (on the Carver WraPs test):

13 months

Table 1 – Progress made by Children with Literacy Difficulties under Different Interventions

Receiving only regular classroom teaching	Extra support – structured, multi-sensory programme, ideally for 2 hours each week from a teacher	Extra support from an LSA in the form of Bristol ELS programme
Thompson, 1989 ¹	Thompson, 1989 ¹ : Hornsby and Farrer, 1990 ²	
Average of 5 months progress in 1 year	Average 18-24 months progress in 1 year	Average 13 months progress in 6 months

^{1,2} *Special Needs in the Primary School: A Practical Guide*, Buckingham, Open University Press, Gross, J. (1993)

Participating schools selected students for intervention from the lowest 20% performers, those at risk of developing reading problems. 141 children received additional support in small groups of 4-6, led by a trained learning support assistant (an LSA).

Derrington reports that these students could have been expected to gain only an average of 5 months in 1 year of regular classroom teaching with no intervention. But after 30 minutes of daily sessions for 12 weeks over a six-month period, these students gained 13 months on the school's testing, keeping pace with the rest of the class, which gained 14.

This is much more rapid growth than would have been expected with other reading intervention programs that had been recommended to the schools, where an average of 18-24 months of progress were expected in 1 year's instruction conducted by a *teacher* rather than an *assistant*.

Turning to students who have missed out on such interventions, Montoya reports on progress made by students with established reading problems (6):

(6)

Florence High School Reading Grant

Author: Mary Jo Montoya; Special Education

May 1999

Location: Florence School District

Type of Instruction: small group

Subjects: 13 high school children with low Word Attack scores (ave. G.E. 2-8)

Instruction Hours: 90 minute sessions, 2-3 times for ½ a school year

Average Woodcock Reading Mastery Test Grade Equivalent:

	Pre-test	Post-test
Word Attack	2-8	9-0

These 13 students at Florence High School, whose initial Word Attack Grade Equivalent were at the second-grade level, received ½ a year's pull-out instruction in small groups. They made, on average, over 6 year's growth in Word Attack.

Other High Schools report similar results (7):

(7)

Thunder Ridge High School Study

Type of Instruction: 1-on-1

Subjects: 10 high school children with learning disabilities, in remedial classes

Instruction Hours: 12

Average Woodcock Reading Mastery Test Grade Equivalent Gains:

Word Attack	4.5
Word Identification	2.3

Previous school term gains (before Phono-Graphix intervention): 0

Ten learning-disabled students aged 14-16 attending remedial classes at Thunder Ridge High School received Phono-Graphix remediation for a period of 12 sessions.

Average gains were

- 4.5 years on Word Attack
- 2.3 years on Word Identification.

These students had been in special education for an average of 6 years prior to this remediation. In the last school term prior to intervention, they had made an average of zero gains on the same tests.

Phono-Graphix has also been used effectively with very young students. Several KinderCare classrooms (8) took part in an efficacy study in 1996:

(8)

KinderCare Preschool Study

Fall of 1996

Location: several KinderCare classrooms in Central Florida

Type of Instruction: small groups of 3-5

Subjects: average age: 4 years, 9 months (ranging in age from 3-11 to 6-9)

Instruction Hours: 20 minutes/day for 11 weeks

Average Phoneme Awareness scores:

	Pre-test	Post-test
Segmenting (15 items)	0	11
Blending (5 items)	0	4

Average Reading and Spelling performance:

Final Reading Age: 1st grade, 1st month
Correctly spelled words (5 items): 4

KinderCare teachers were trained for an average of 16 hours. Students received instruction for an average of 20 minutes/day in small groups of 3-5, for 11 weeks. At the start of the study, the average age of the students was 4 years, 9 months, with the youngest being just 3 year, 11 months. The student's phoneme awareness improved rapidly:

- segmenting scores moved from 0 to 11
- blending scores went from 0-8.

At the close of the study, the average reading age for these pre-schoolers was first grade, first month and the average number of correctly spelled words on a five-trial test was four.

Newly trained Phono-Graphix teachers are using the program effectively not just with emerging readers and readers with established reading problems, but also with English as a Second Language (ESL) students. Szwed (9) reports on the progress of the lowest performers at one of the schools she services:

(9)

Pilot Program 1999-2000 / 10 Hours : 7th Graders

Author: Cindy Szwed; ESL teacher

Location: School district near Chicago (6 schools)

Primary Instructor: ESL teacher with one-week of training

Type of Instruction: a small group of 6

Subjects: 6 junior high students (lowest performers on Language Assessment Scale)

Average Instruction Hours: 10 (1 hour once a week, Oct. 99-May 00)

Average Gains (Standard Scores):

Word Identification	14.00	1.40 / instructional hour
Word Attack	21.83	2.18 / instructional hour

There are 23 different languages spoken in Ms. Szwed's district. These 7th graders, 5 of whom were new to the country, made significant progress after only 10 hours of instruction, SS gains of:

- 14 in Word Identification
- nearly 22 in Word Attack.

Szwed (10) also post-tested all 20 of her K-5 students who were in their first year in the US:

(10)

Pilot Program 1999-2000 / First Year Students Only

Author: Cindy Szwed; ESL teacher

Location: School district near Chicago (6 schools)

Primary Instructor: ESL teacher with one-week of training

Type of Instruction: small groups of 2-7

Subjects: 20 ESL students, K-5, first year in the US (little/no English skills)

Instruction Hours: one school year's instruction (Oct. 99-May 00)

Average Standard Scores at the end of the year:

Word Identification	107.8
Word Attack	105.75

Table: First Year Students Only

grade	age	Word ID (Std.Scores)	Word Attack (Std. Scores)
K AM:	6-7	115	117
	5-11	115	118
K PM:	6-5	96	102
	6-3	122	123
	6-6	100	104
	5-1	115	117
	6-2	104	105
	6-0	127	120
	6-2	103	109
1 st	7-2	122	116
	7-4	118	107
	7-9	108	103
	6-10	127	110
	7-1	122	105
2 nd	8-5	96	83
3 rd	9-6	96	87
	9-1	108	118
4 th	10-0	89	80
5 th	13-6	86	97
	10-9	87	94

Szwed reports that all began with little or no English skills. After just one year of Phono-Graphix instruction, all but one were average to above average in Word Identification and Word Attack.

Trained members report successes with other special needs populations as well, including students with Down's syndrome, with below average IQs and with hearing impairments. Palmer (11) presents a carefully controlled study of the effects of Phono-Graphix instruction on two deaf children:

(11)

Assessing the Benefits of Phonics Intervention on Hearing Impaired Children's Word Reading

Paper presented at the British Educational Research Association Conference, Cardiff University, 2000.

Author: Dr. Sue Palmer, University of Manchester

Primary Instructor: Dr. Palmer, who is a licensed Phono-Graphix trainer

Type of Instruction: 1-on-1

Subjects: 2 children (ages 8-10 and 9-0) with severe to profound hearing impairments

Instruction Hours: 12 weeks of 1 hour twice per week in addition to daily literacy hour with a teacher of the deaf familiar with the program

Phonemic Awareness scores:

	Child 1		Child 2	
	Pre-	post-	pre-	post-test
Segmenting (63 items)	0	40	0	36
Blending (15 items)	4	8	1	8
AAT (10 items) (AAT)	0	8	0	7

Standard Scores on the Wide Range Achievement Test (WRAT):

	Child 1		Child 2	
	Pre-	post-	pre-	post-test
Word Reading	60	85	25	79
Spelling	50	83	25	73

Nonword Reading (a decoding measure) Scores:

	Child 1		Child 2	
	Pre-	post-	pre-	post-test
(10 items)	0	6	0	6

Palmer reports significant growth in the children's phonological processing, which translated into tremendous growth in word reading and spelling for these children, as we can see in their WRAT (Wide Range Achievement Test) reading and spelling scores. These new phonological skills were clearly being employed, as the children were now able to decode nonsense words for the first time.

So, Phono-Graphix can address the gamut of student types. Note that the ease of the program makes it available to the entire range of instructors as well. So far, we've seen preschool teachers with just 16 hours of training in the method, special education teachers, ESL teachers, even classroom assistants using the program effectively. The method is effective even in the hands of instructors with no educational background. In addition to the parents around the world who are using Reading Reflex with their own children, field studies reveal that literacy volunteers using the book are highly successful.

For example, Costco's community outreach program has hundreds of *Costco employees* volunteering across the US, teaching disadvantaged children to read using Phono-Graphix. An early study was conducted by the store near Spring Lake elementary (12), where forty-three 1st-3rd grade students were isolated as needing special help with reading. 64% were described as non-readers:

(12)

Spring Lake Costco Mentor Study

Location: Spring Lake Elementary

Primary Instructors: Volunteers – Costco employees with 4 hours of training

Type of Instruction: 1-on-1

Subjects: 43 students grade 1-3. (64% were described as non-readers.)

Instruction Hours: 8 (45 minutes/day for 11 weeks)

Average Gains on the Qualitative Reading Inventory:

11 months

93% showed improvement

The children received 45 minutes of 1-on-1 instruction / week over 11 weeks, for a total of 8 hours of instruction. The instruction was given by *Costco employees* who had received just 4 hours of training, using materials from Reading Reflex. The children gained an average of 11 months on the Qualitative Reading Inventory. 93% showed improvement.

In addition to its mentoring work, Costco and its volunteers are now conducting 2-week summer reading camps for the lower performing children at needy schools. These camps give students and teachers at the school a jump-start for implementing Phono-Graphix during the coming school year.

The immediate effects of Phono-Graphix are clear. What about the long-term effects? The McGuinness' initial study does not include a follow-on study, but it does report on a parent survey (13), anonymous questionnaires sent to parents covering a period of over 2 years:

(13)

Phono-Graphix™: A New Method for Remediating Reading Difficulties

Published Study: Annals of Dyslexia, Vol. 46, 1996.

Authors: Carmen McGuinness, Diane McGuinness and Geoffrey McGuinness; program developers

Results of Parent Follow-up Survey

Return rate: 50%

	At the start of remediation	currently
Diagnosed as LD	26%	0
On Honor Roll	0	29%
Lowest grade in Reading	F (C,D, F only)	C (ave.: B+)
Reads for pleasure	0	63%

Behavioral improvement at school: 100%
Higher self-esteem: 100%
Parent still using the materials: 100%

The return rate was 50%.

- 26% of the subjects had been previously diagnosed as LD. None were LD now.
- 29% of the children were on the honor roll, where none had been before.
- The lowest grade in reading or language arts was a C instead of an F.
- Prior to therapy, grades were C,D and F only. Now the majority were getting Bs and As (with a B+ average).
- 63% now read for pleasure, where none did before.
- Behavioral improvement at school and higher self-esteem were reported in 100% of the cases.
- 100% of the parents were still using the Phono-Graphix materials.

Dias and Juniper (14) give us another suggestion of lasting effects of Phono-Graphix remediation:

(14)

Phono-Graphix – Who Needs Additional Literacy Support? An Outline of Research in Bristol Schools

Published Study: *Support for Learning* Vol. 17, 2002

Authors: Katy Dias and Lynne Juniper

Location: Bristol Schools, UK

Type of Instruction: classroom

Primary Instructors: classroom

Subjects: 60 1st grade children from 7 classes in 4 different schools

Instruction Hours: one school year

Average Phoneme Awareness at Post-testing:

	Phono-Graphix Only (17 students)	Mixed methods (14)	NLS (34)
Segmenting (63 items)	53.3	28	22.5
Blending (15 items)	10.3	5.4	4

Nonword Reading (a decoding measure) Scores:

	Phono-Graphix Only	Mixed methods	NLS
(20 items)	10	2.8	2.2

In this comparative study, published in *Support for Learning*, we see that students taught with Phono-Graphix made significantly more progress than children taught with the National Literacy Strategy or a mix of methods, although all started at the same level. But most significantly, none of the special-education-needs children who received Phono-Graphix instruction required additional literacy support in the following year. (Teachers in the comparison schools predicted that 25-30% of their children would require additional literacy support.)

With this level of empirical support, Phono-Graphix plainly merits consideration for more controlled experimental research. Its track record with later elementary children specifically, the concern of Dr. Torgesen's proposed study, is well supported. In addition to the McGuinness' study and the high school and ESL field studies already reported, several other field studies target these students.

Derrington and Jones (15) report on fifteen 7th graders who were 2 or more years behind in reading:

(15)

Knowle Park Juniors: Report on the Use of Phono-Graphix™ as a Method of Helping Struggling Readers at Key Stage 2

Authors: Sue Derrington and Brian Jones

Location: Knowle Park School, UK

Type of Instruction: 1-on-1 sessions, each followed by 3 twenty-minute follow-up sessions

Primary Instructors: Trained Phono-Graphix teachers (follow-up sessions by trained Learning Support Assistants)

Subjects: 16 7th graders whose reading ages were 2 or more years behind

Average Instruction Hours: 11.2 hours teaching, with 11.2 hours follow-up

Average Gains in Reading (Nelson NFER Individual Reading Analysis):

Reading Accuracy 23 months
Reading Comprehension 17 months

These students showed an average of 23 months' gain in reading accuracy after only 11.2 hours of 1-on-1 sessions, with 11.2 hours of follow-up. Reading comprehension improved, on average, by 17 months.

Philp (16) reports on students in a school in a commercial area with a transient population:

(16)

Best Practice Research Scholarship: A Research Project to Determine the Impact of a Specific Short Term Phonics Programme on Primary Aged Children Who Are Not at the Standard Expected for their Age in Reading

Author: Ellie Philp

Location: a primary school with a transient population, in a busy market town with commercial rather than residential surroundings

Type of Instruction: 1-on-1

Subjects: 34 3rd-7th grade children, all poor or non-readers (8 months to 5 years behind in reading)

Average Instruction Hours: 12 20-minute sessions over 6 months

Average Gains (on the MacMillan Reading Analysis test):

18 months

(all students gained more than 6 months in reading age)

Philp states that Phono-Graphix was chosen for the school because of its simplicity, both for the student and the instructor. All 34 of these later elementary children (grades 3-7) exceeded 6 months growth in reading after 6 months of Phono-Graphix instruction. These students received only twelve 20-minute sessions, on average, yet averaged 18 months growth.

My own first true test of Phono-Graphix came just 3 months after I was trained. I was invited to pilot Phono-Graphix at a local school in a relatively affluent area (17):

(17)

Brook Knoll Elementary School Reading Assistance Pilot Project

Author: Erin Duncan, Read America Clinic

Spring, 1998

Location: Brook Knoll Elementary, Scotts Valley, California

Primary Instructors: licensed Phono-Graphix trainers

Type of Instruction: small groups of 5 students

Subjects: 15 fifth-graders (identified by teachers as the lowest readers)

Average Instruction Hours: 10.2 (1 hour, 3 times per week for eight weeks)

Average Phoneme Awareness Scores:

	Pre-test	Post-test
Segmenting (63 items)	48.3	61.9
Blending (15 items)	13.5	14.6
AAT (10 items)	7.1	9.3

Average Woodcock Reading Mastery Test Grade Equivalents:

	Pre-test	Post-test
Word Identification	4.2	5.5
Word Attack	4.5	7.3

Fifteen fifth-graders had been identified by teachers as poor readers, the lowest 10%, who were likely to have difficulty with the work required of them in middle school where no more reading instruction was to be provided. We *started* the project in April and had only 8 weeks to work. Only a program as quick as Phono-Graphix could have made a difference in this little time. Working an average of just 10 hours in groups of 5, these students made significant progress in phoneme awareness, with over 1 year's growth on Word Identification and nearly 3 years on Word Attack.

These field studies clearly support Phono-Graphix's efficacy with later elementary students. One population of concern for the study under consideration today is that of low socio-economic status (SES). We have already looked at Costco's use of Phono-Graphix with needy children. Three other studies lend further support to Phono-Graphix's efficacy with the disadvantaged.

McCarty (18) reports on an extreme of this population: 9 adult inmates in a Federal Prison:

(18)

Reading Therapy Project

Author: Roxanne H. McCarty, Learning Specialist/Diagnostician, Paul Smith's College

Location: Federal Correctional Institute in Ray Brook, New York

Primary Instructor: Licensed Phono-Graphix trainer

Type of Instruction: 1-on-1

Subjects: 9 inmates, ages 26-66, with uniformly low reading scores

Average Instruction Hours: 33 (2-3 one-hour sessions / week for 15 weeks)

Average Phoneme Awareness Scores:

	Pre-test	Post-test
Segmenting (63 items)	27.8	56
Blending (15 items)	8.6	11
AAT (10 items)	2.3	7.4

Average Standard Score Gains on the Woodcock Reading Mastery test:

Word Identification	11.77
Word Attack	26

The highest initial reading score among these men was at a 4.1 grade equivalent. These men are among the results of our failure to teach every child to read. Imagine how difficult it was for these men to try again, after a lifetime of failure with reading. After just 33 hours of instruction, these men were well on their way to remediation, with much improved phonemic awareness and SS gains of:

- 11.77 in Word Identification
- 26 on Word Attack.

Head-Dylla (19) brings us data from a juvenile detention center in New Mexico:

(19)

August 1999-May 2000 Reading Program Report

Author: Candace Head-Dylla, New Mexico Reading & Training

Location: Bernadillo County Juvenile Detention Center

Type of Instruction: 1-on-1

Subjects: incarcerated youths averaging 15.3 years

Average Instruction Hours: 7.3

Average Woodcock Reading Mastery test Grade Equivalent Gains:

Word Identification	9 months
Word Attack	1 year, 8 months

These kids are in trouble and in serious need of reading instruction. Only 11 of the 135 students tested read at grade level. Students tested were up to ten years below grade level with a 3-year reading deficit on average. We need to get more kids reading and we need to do it quickly.

As you can imagine, remediation in this environment is uniquely challenging. Head-Dylla points out that frustration levels are sky-high, self-esteem is desperately low, and the population is so very transient. Phono-Graphix is uniquely suited to this environment, since students see immediate results and the program can be completed so rapidly. 24 of the 67 students chosen for remediation completed the program (the rest received instruction but were transferred before post-testing was possible). Average gains in Word Identification were nine months; gains in Word Attack were 1 year, 8 months. Average length of remediation was just over seven hours.

Head-Dylla reports that even with the speed of Phono-Graphix, her staff just does not have the time and resources to work with all of the 4000 children coming in and out of the facility each school year. They already limited themselves to those who would be at the facility for 30 days or more, and were forced to give preference to the youngest with the lowest reading performances. Here are 24 students, at least, who now know that they can learn. Imagine how few students the center could reach with a program that takes 80, 120 or 600 hours.

Finally, Taylor (20) reports from South Africa:

(20)

Exploring the Phono-Graphix Reading Method with young Adult learners for whom English is a second or third language.

A research report on a study conducted in partial fulfillment of a Masters Degree in Education.

Author: Jenny Taylor, Read For Africa

Location: Sparrow Technical Skills Centre, Sophiatown, Johannesburg, South Africa

Primary Instructors: An experienced Phono-Graphix trainer and 2 newly trained teachers

Type of Instruction: experimental groups of 1-on-1 and small group instruction

Subjects: 13 young adults (between 15 and 22 years)

Instruction Hours: 1 hour, 3 times / week, over 11-weeks

Average Phoneme Awareness Scores (Percentages):

	Pre-test	Post-test
Segmenting (63 items)	38%	94%
Blending (15 items)	39%	81%
AAT (10 items)	18%	52%

The Sparrow Center provides technical training for young adults who lack education and training, drawing from black townships and informal settlements. Instruction is given in English, although this is the second or third language for most students *and teachers*. Sparrow previously provided no literacy training prior to its entry-level courses, but found that many students had limited reading skills and could not access their content. Students dropped out, disheartened and unmotivated. Taylor indicates that this is typical of the adult literacy crisis in South Africa today.

Phono-Graphix was evaluated as a short, cost-effective means to quickly teach these young adults to read English before they enter the technical training courses. This quasi-experimental study shows that the results did not differ significantly between groups taught by experienced teachers versus those who were newly trained. Nor did group versus individual instruction differ significantly. These students made solid improvement in their phoneme awareness. What was the pay-off for this work? Sparrows' pass rate (21) on tests of literacy and numeracy (which involves many word problems requiring reading) jumped dramatically, far outstripping its previous 2 year's performance as well as that of the nation:

(21)

Figure 6: Synopsis of IEB ABET English Literacy and Numeracy Pass Rates at Sparrow Skills Centre and Nationally

SUBJECT	Sparrow Nov 1999	National Nov 1999	Sparrow Nov 2000	National Nov 2000	PG INTRODUCED AT SPARROW JAN 2001	Sparrow Nov 2001	National Nov 2001
Level 1: Literacy	64%	64.65%	84%	61.90%		99%	80.51%
Merit	11% merit		13% merit			81% merit	
Level 1: Numeracy	68%	66.57%	78%	66.06%		98%	70.62%
Merit	15%		9% merit			44% merit	
Level 2: Literacy	79%	71.19	86%	80.44%	91%	71.98	
Merit	8.3% merit		22% merit		52% merit		
Level 2: Numeracy	47%	31.52%	18%	39.79%	73%	37.78%	
Merit	no merit		3% merit		12% merit		

If Phono-Graphix can be this effective in such a setting, I'm excited to see what might result in Dr. Torgesen's proposed study. Phono-Graphix should fit well into the plan. It is effective within the instructional hours that are budgeted. (In fact, we are presented with a unique problem: what to do with the additional 88 hours!). It is effective with newly trained, inexperienced instructors, in a range of instructional models, including the proposed small-group model. It is effective with a range of student types including high and low SES, 3rd and 5th graders, and students with either mild or severe reading problems.

These published studies and uncontrolled field reports suggest new hope in the race to save children. With Phono-Graphix's remarkable efficiency and affordability, we should do all we can to see it tested against other methods and put into the hands of anyone working with children, especially those with limited time and resources who desperately need a *practical* means to save as many children as they possibly can.

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