

IMPLEMENTATION & RESULTS

California
DEPARTMENT OF **CORRECTIONS**

Research Study

CALIFORNIA DEPARTMENT OF CORRECTIONS

TYPE OF STUDY

Pre-/Post-

TYPE OF SCHOOL

Corrections

POPULATION OF STUDENTS

*Correctional, linguistically
diverse (ELL)*

GRADE LEVEL

Adult education

LENGTH OF DATA COLLECTION

3 years

LOCATION

*Western United States,
Pacific Region*

NUMBER OF SITES

*19 of 23 correctional facilities
participated in data collection*

NUMBER OF STUDENTS

*2,500 inmates; pre- and
post- scores gathered on
400 participants*

READING HORIZONS MATERIALS

Interactive software

ASSESSMENT TOOLS

*Wide Range Achievement
Test (WRAT); Test of Adult
Basic Education (TABE); Word
Recognition Assessment in
Reading Horizons interactive
software; participant surveys*

Summary of Findings

Inmates reading below a fourth-grade level received instruction in Reading Horizons. Forty percent of inmates in the program gained more than 3.5 grade levels in their reading skills. Ninety-five percent of inmates said they thought the software helped them learn to read better.

Background

California State University conducted a three-year project investigating inmate literacy. Project leads reviewed 24 literacy programs and then selected Reading Horizons interactive software for use in the project.

Resources

Reading Horizons interactive software, California State University project resources, educational programs and computer labs at correctional facilities.

Implementation

Inmates were pre-tested and then placed in one of two intervention groups: reading at or above fourth-grade level/reading below fourth-grade level. All inmates who scored below a fourth-grade reading level on the formative assessment received Reading Horizons instruction. Additionally, many inmates reading above a fourth-grade level received Reading Horizons instruction. To measure growth, post-tests were administered six months after pre-tests. Pre- and post-test scores on the Wide Range Achievement Test were obtained from 19 of 23 facilities for 400 inmates, representing 16% of all inmates receiving Reading Horizons instruction. Additionally, 21 inmates were selected to participate in a social validity survey.

Outcomes

A weighted average was calculated and yielded a 2.1 grade level increase in participant reading scores, measured by the Wide Range Achievement Test (WRAT) (Visual 1).

VISUAL 1				
PER-SITE AVERAGE SCORES ON THE WRAT BEFORE AND AFTER READING HORIZONS INSTRUCTION				
SITE	PRE-TEST	POST-TEST	GAIN	PARTICIPANTS (n=400)*
FACILITY 1	5.2	8.1	2.9	48
FACILITY 2	~	~	~	~
FACILITY 3	5.7	9.8	4.1	10
FACILITY 4	~	~	~	~
FACILITY 5	~	~	~	~
FACILITY 6	2.1	4.3	2.2	1
FACILITY 7	8.4	9.5	1.1	38
FACILITY 8	5.5	5.9	0.4	25
FACILITY 9	2.4	3.4	1	1
FACILITY 10	7.9	9.5	1.6	11
FACILITY 11	5.3	7.7	2.4	36
FACILITY 12	2.2	4.4	2.2	10
FACILITY 13	2.6	4.9	2.3	4
FACILITY 14	5.7	8.2	2.5	39
FACILITY 15	3.7	6.7	3	12
FACILITY 16	3.6	5.5	1.9	67
FACILITY 17	5.1	7.5	2.4	35
FACILITY 18	4.5	5	0.5	24
FACILITY 19	7.3	11.3	4	21
FACILITY 20	4	3.4	-0.6	3
FACILITY 21	3.7	5	1.3	11
FACILITY 22	~	~	~	~
FACILITY 23	2.1	4.2	2.1	4
AVERAGE	5.2	7.3	2.1 grades†	
*Several sites reported that more inmates participated in the program; however, pre-/post-test scores were submitted only for this number of participants.				
~ Four facilities did not submit data.				
†Weighted average (Note: when site average and number of participants at each site are available, a weighted average can be calculated to find the average participant gain).				

Gains for inmates of selected ethnic backgrounds were reported. Inmates of Hispanic ethnicity made the greatest gains, followed by inmates of black ethnicity (Visual 2).

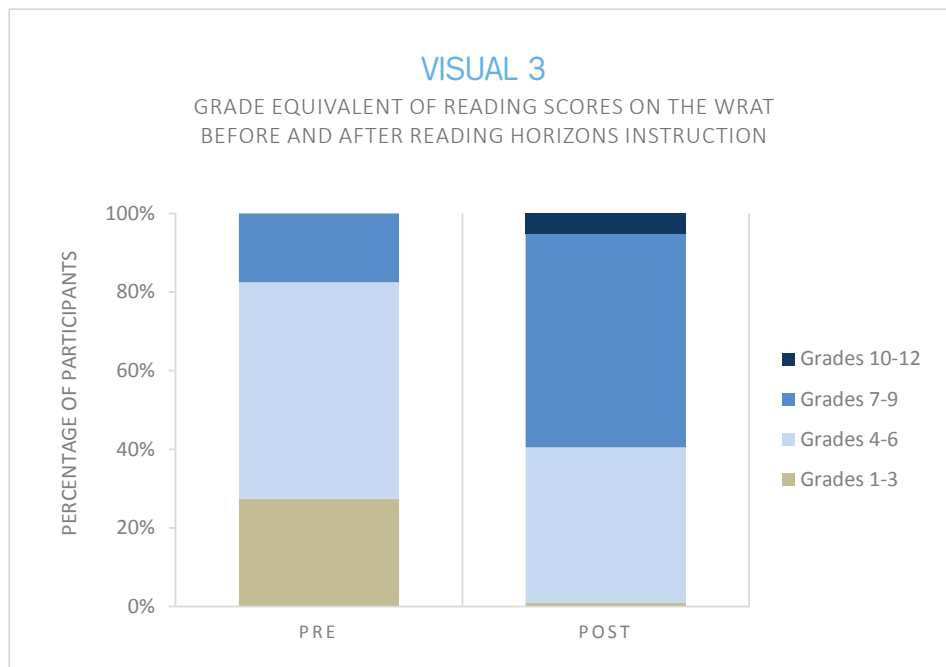
VISUAL 2
GRADE GAINS AFTER READING HORIZONS INSTRUCTION,
REPORTED PER ETHNICITY, AS MEASURED BY THE WRAT

RACIAL & ETHNIC BACKGROUND	PARTICIPANTS (n=400)*	PRE-TEST	POST-TEST	GAIN
AMERICAN INDIAN	1	4.2	4.2	0
ASIAN	6	4	6	2
WHITE	17	4.2	5.7	1.5
OTHER	31	5.5	5.9	0.4
BLACK	74	4.9	6.6	1.7
HISPANIC	270	5.4	7.8	2.4
AVERAGE		5.2	7.3	2.1

*Several sites reported that more inmates participated in the program; however, pre-/post-test scores were submitted only for this number of participants.

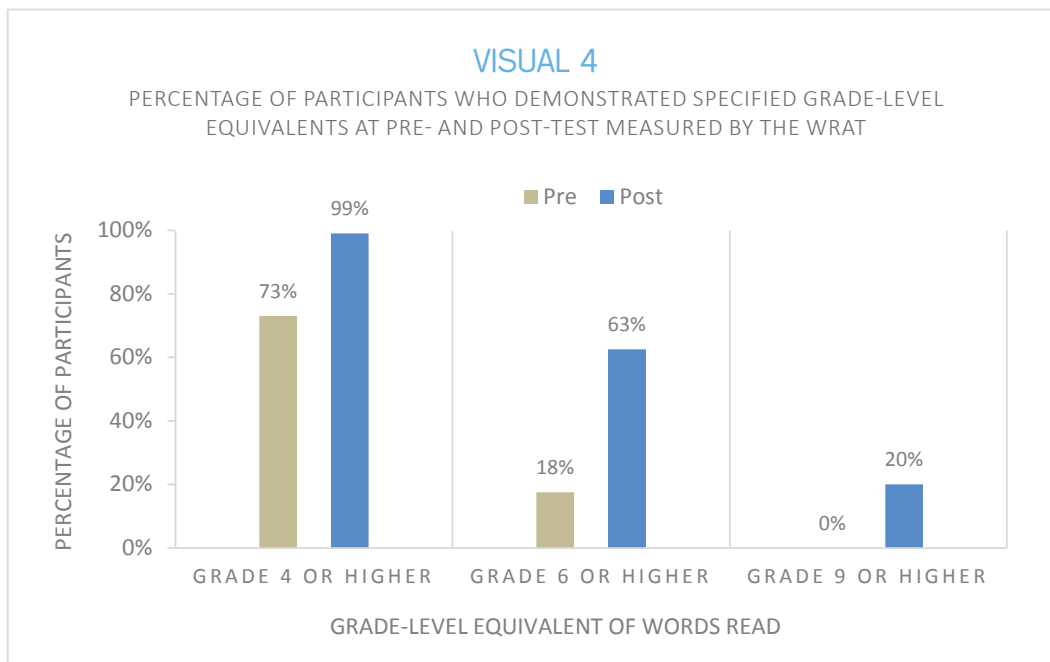
Note: Due to the small number of participants in some ethnic groups in this study, caution must be taken in generalizing outcomes to others who match the demographic.

Comparison of data before and after Reading Horizons instruction shows movement from reading skills at lower grade equivalents to higher grade equivalents by participants on the WRAT (Visual 3).



Visual 4 depicts word reading outcomes in more detail:

- Participants who demonstrated reading skills at or above a fourth-grade reading level increased from 73% before Reading Horizons instruction to 99% after Reading Horizons instruction. In other words, 110 participants were reading below a fourth-grade level before Reading Horizons, and after Reading Horizons instruction, only four participants were.
- Before Reading Horizons instruction, less than 20% of participants demonstrated reading skills at or above a sixth-grade level. After Reading Horizons instruction, more than 60% of participants were reading at least a sixth-grade level as measured by the WRAT.
- None of the participants were reading at or above a ninth-grade level at pre-test. After Reading Horizons instruction, 20% of participants were reading at a ninth-grade level or above.



Social validity survey:

- 95% of inmates said they thought the software on the computer helped them read better.
- 90% of inmates said they were comfortable working on the computer.
- 90% of inmates felt that their work on the computer helped them to understand English better.