# SOI PROGRAMS, BENEFITS, DATA, AND RESULTS

Dr. Mary Meeker and Dr. Robert Meeker ventured with Bridges Learning Systems to promote and implement the SOI programs discussed below as part of a campaign to reach thousands of students across the USA who were struggling with the educational standards.

The results discussed below are the outcome of assessing the cognitive and perceptual abilities that are critical to learning and then strengthening those abilities so students can improve their academic performance.

## **SOURCES OF DATA AND RESULTS**

From 2000 to 2006, data was systematically collected and analyzed on the impact of SOI programs on children and adults across the country. During this period, data was collected on more than 50,000 students.

The program of research included:

- the Report Card
- Learning Discovery
- internal studies using test and assessment data
- external evaluations of all programs

### LEARNING DEVELOPMENT

### **REPORT CARD**

The Report Card included a self-report system of data collection, participated in by over 500 schools during the reporting period. At participating schools, pre and post information was collected on 7 primary educational and behavioral indicators impacted by SOI IPP, Learning Discovery, and Learning Development.

REASONS FOR REFERRAL AND PROPORTION IMPROVED AFTER THE SOI IPP LAB (AS RATED BY CLASSROOM TEACHERS)

REASONS FOR REFERRAL	PERCENT REFERRED	PERCENT IMPROVED SINCE REFERRAL
Disruptive	27%	66%
Uncooperative	13%	73%
Can't stay focused	66%	80%
Can't follow rules	26%	69%
No behavior control	14%	61%
Poor grades	42%	74%
Poor reading skills	56%	75%
Poor math skills	38%	70%
Poor language skills	30%	68%
Poor handwriting skills	31%	55%

# **COST BENEFIT OF SOI PROGRAMS**

Students who disrupt the learning environment require more teacher time and effort than students who do not disrupt the learning environment. A single disruptive student costs the school district \$2000 in lost teacher time and effort.

Nationwide, the majority of students are referred to the IPP Lab because they can't stay focused on task and are disruptive in class. After participation in the Lab, disruptive behavior is significantly reduced or eliminated for more than 80% of these students. The resulting reductions in teacher time and effort required to manage and monitor disruptive behavior amounts to over \$48,000 per year, and returns over 300 teaching days to the school.

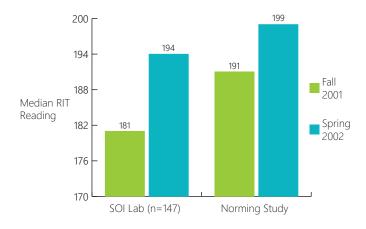
The SOI IPP Learning Development Lab reduces or eliminates disruptive classroom behavior, helps create a more effective and efficient learning environment, reduces potential negative outcomes, and increases educational achievement for the entire class.

# READING & MATH PERFORMANCE BEFORE AND AFTER SOI PROGRAM (AS RATED BY CLASSROOM TEACHERS)

1 = LOW   4 = HIGH	READING	матн
Initial Rate	2.21	2.15
Final Rate	2.67	2.69

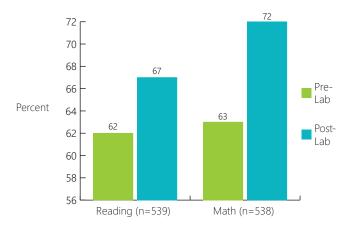
### THE ACHIEVEMENT LEVELS TEST

Exhibit 1: median RIT scores on the Achievement Levels Test in reading - 3<sup>rd</sup> Graders (n=147) and norming study group



# PRE AND POST TERRA NOVA TEST RESULTS

Exhibit 2: proportion of lab students scoring at or above grade level expectations on Terra Nova Reading and Math

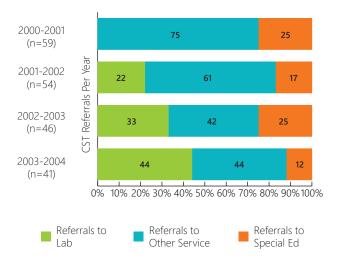


# PRE AND POST LAB ATTENDANCE (N=10,000)

	ATTENDANCE RATE
Pre-Attendance Rate	93%
Post-Attendance Rate	95%

#### SPECIAL EDUCATION REFERRALS

Mt. View Elementary School: Child Study Team Outcomes by Year



# LEARNING DISCOVERY

# TEACHER RATINGS BEFORE AND AFTER STUDENTS PARTICIPATED IN LEARNING DISCOVERY

AVERAGE RATING FOR ALL STUDENTS (N=4000)	INITIAL AVERAGE RATING	FINAL AVERAGE RATING
Keeping hands to self	3.29	4.14
Sharing	3.45	4.25
Focusing or concentrating on task	2.97	3.96
Staying on task	2.96	3.98
Listening	2.96	3.93
Sitting still	3.08	4.01
Gross motor skill coordination	3.23	4.18
Fine motor skill coordination	2.89	4.05
Standing in a straight line	3.18	4.12
Walking in a straight line	3.16	4.14
Confidence in ability to complete tasks	3.07	4.14
Memory	3.14	4.14
Following directions	3.01	4.01
Following or abiding by rules	3.29	4.14
Discriminate between similar objects	3.29	4.30
Left-to-right information processing	3.12	4.21
Counting numbers	3.27	4.38

# NATIONAL EVALUATION OF LEARNING DEVELOPMENT

## WHAT WAS THE STUDY ABOUT?

Learning Development is an activities-based program designed to develop cognitive and perceptual skills among elementary-aged students who are at-risk of academic failure.

The program assesses student abilities in cognitive and perceptual skill domains, and prescribes an individualized treatment profile of workbook modules and physical activities designed to enhance and develop deficiencies and strengthen academic performance.

### STUDY METHOD

Sixty 4<sup>th</sup> grade students identified by teachers as at-risk of academic failure based on academic performance and classroom behavior were randomly assigned to treatment and control conditions.

Students in the treatment group received Learning Development training a minimum of 45 minutes per day, two days per week during the school year along with their regular lessons at school. Students in the control group received their regular lessons at school only.

Reading and math scores were compared on the Kaufman Test of Educational Achievement (KTEA), and attention and learning problems were compared on the Behavioral Assessment System for Children (BASC).

### WHAT DID THE STUDY FIND?

Reading and math improved significantly among students in the treatment group compared to no significant improvement among students in the control group.

On average, the treatment group scored 6.49 points higher in reading, and 3.43 points higher the **KTEA** in math on than students in the control group.

Standard mean difference statistic (d) or effect size calculation indicates that the magnitude of these results are moderate in reading (d=.51) and small in math (d=.24).

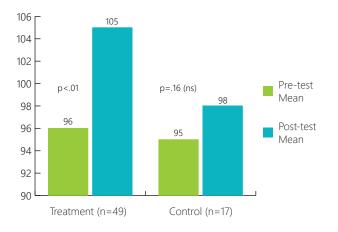
Learning and attention problems diminished significantly among students in the treatment group compared to students in the control condition.

On average, BASC attention problems decreased by 3 points among students in the treatment group compared to a 2 point decrease among students in the control group. BASC learning problems decreased an average of 3 points among students in the treatment group compared to a zero point decrease among students in the control group.

Standard mean difference statistic (d) or effect size calculation indicates that the magnitude of these results are small in both attention (d=.10) and learning problems (d=.20).

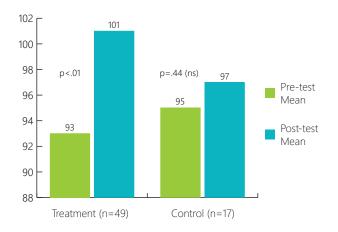
# KTEA PRE/POST READING COMPARISON BETWEEN TREATMENT & CONTROL GROUP

Chart 1: KTEA standard scores in reading among 4<sup>th</sup> graders in treatment and control groups before and after participation in Learning Development



# KTEA PRE/POST MATH COMPARISON BETWEEN TREATMENT AND CONTROL GROUPS

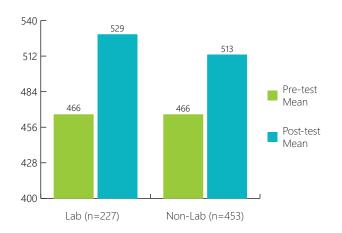
Chart 3: KTEA standard scores in math among 4<sup>th</sup> graders in treatment and control groups before and after participation in Learning Development program



## **EXCELERATE OUTCOMES**

# EXCELERATE OUTCOMES IN JOB CORPS (INDEPENDENT EVALUATION BY DECISION INFORMATION RESOURCES)

Chart 1: pre and post TABE math scores among Job Corps students who participated in the lab compared to non-lab controls



### CONCLUSIONS

SOI programs, sold by Bridges Learning Systems during this time, collected hundreds of data elements on thousands of students across the country.

Outcomes, particularly in reading and math, were consistent, powerful, and significant.

Hundreds of teachers in different schools across the country, across various years of the program, told us the same thing over and over: SOI helps students focus, stay on task, and concentrate on their work. As a result, they improve academically and behaviorally.

Standardized test and assessment results show positive gains for the students.

Independent evaluations also validate these outcomes. Rigorous experimental research validate reading and math gains for elementary students.

This study was conducted by: Frank Mondeaux, Ph.D. Independent Evaluator Portland, Oregon