# Davis K-2 School Program" Report 

## 1993-1997

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for

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## Introduction

This report details the findings, to date, of a pilot study that began in 1993 at an elementary school in Fremont, California. The grades involved were Kindergarten, and First Grade. The purpose of the study has been to determine what beneficial effect, if any, integrating various Davis Dyslexia Correction ${ }^{\text {TM }}$ methods, primarily Davis Symbol Mastery ${ }^{\text {TM }}$, into standard K-2 curriculums might have on the overall student population. The objective of this study has been to:

1. help schools improve the overall percentages of children who are able to meet curriculum goals at the end of Kindergarten through 2nd grade
2. give teachers strategies that address and cultivate the learning styles of all students
3. enhance the learning and creative potential of ALL students
4. prevent learning disabilities in the early grades

This report is based on information gathered from two classrooms, one kindergarten and one first grade. Classrooms were a basic cross section of the kindergarten and first grade school population.

The 93-94 school year was devoted to teacher training in the Davis methods and experimentation with fitting them into existing curriculum.

In the 94-95 school year, emphasis was on individualized teacher training specific to grade level, and working out the logistics of taking one-on-one methods into a classroom setting. These logistics included support personnel requirements, lesson plan scheduling, and materials and supply needs.

In the 95-96 and 96-97 school years, specialized training of teachers, aides, and parent volunteers was done; and pre- and post-testing were introduced.

## What is the Davis K-2 School Program?

This Program is a visual, kinesthetic, cognitive system for teaching basics skills. It can be integrated easily into most K-2 school programs to achieve curriculum goals for all the students. It addresses the needs of the non-traditional learners, while at the same time keeping pace with and stimulating creativity in high achievers. If used correctly by trained personnel, it can prevent a learning disability from occurring in later grades as well as enhance the learning potential of all students.

The Davis methods fit well with traditional teaching theory, and require very few additions or changes to classroom structure or materials. The full scope of these methods are described in The Gift of Dyslexia by Ronald D. Davis, and have been adapted for use in the primary grades of K-2.

The main method used is Davis Symbol Mastery which has children create letters, numerals, and other basic language symbols and words (according to their dictionary definitions) with clay. Although this sounds very simple, teachers still need specialized training to implement the program successfully. This training includes: principles and theories, methodology, and classroom management strategies.

## How does the Davis K-2 School Program differ from other programs?

Davis believes that the only real learning is experiential and that the learning process and the creative process, if not the same, are so close that they can not be separated. The key to true knowledge is mastery.

Prior to this Program, most teachers used phonics instruction, drill, workbook, and paper pencil activities to instruct students in learning the alphabet and sight vocabulary. There were always a few students these methods didn't reach.

After the Davis Program, teachers used phonics instruction, Davis Symbol Mastery (creating letters, words, and concepts in clay), and fewer paper pencil activities. This program reduces if not eliminates drill, utilizes natural creativity, is fun and easy for both students and teachers to implement, and addresses all learning styles.

## Who did it work for?

The Davis Program benefited not only below average students but all students. The students found Davis to be a fun way to learn, adding variety to pencil and paper schoolwork. Children saw this as a way to learn that could also be transferred to other learning situations.

## What improvements in learning were observed?

The three teachers who started the program in the 1993 and provided the information in this report are highly respected and qualified, with more than twenty years each in their respective primary grades. They observed the following in their classroom as a result of the teaching techniques used in the Davis Program:

## Kindergarten Students:

- Fewer reversals
- Better eye-hand coordination
- Overall better printing skills
- Learned the alphabet faster with less effort
- Better understanding of why we have an alphabet
- Many students able to find letters in dictionary
- Made learning more fun
- Consonant and vowel sounds were recalled more quickly
- Phonics skills were stronger


## First Grade Students:

- Improved oral language skills
- Better retention of reading vocabulary (very little re-teaching)
- Better understanding of sight words, not only what they mean, but where and how to use them
- Students' confidence increased
- Punctuation skills greatly increased
- Dictionary skills greatly increased
- School was more than just paper and pencil
- Classroom parent volunteers and aides felt they were making a real contribution to students' education
- Alignment procedure helped students stay on task


## In what areas of the curriculum was Davis used?

Davis techniques have been used successfully in:

- Learning basal reading words
- Oral reading
- Reading for comprehension
- Learning spelling words
- Learning basic math skills
- Kindergarten readiness skills
- Helping students learn self control
- Helping students learn social skills
- Learning basic coordination skills


## How was the Kindergarten classroom structured?

Students worked in small group of five children to one adult. Each student worked for about 20 minutes twice a week during activity time.

## How was the First Grade classroom structured?

Students were instructed in whole group settings with a ratio of 1 adult to 5 children. Each student worked for about two hours twice a week during reading instruction.

## What are the results of the Program?

## Kindergarten Alphabet Test

Students were given a paper with 26 squares. The students were instructed to write in order as many letters as they could. There was no time limit. Tests were teacher made. The same test was administered as both a pre- and post-test. It is significant to note that the 94-95 post-testing was done after the summer holidays, revealing long-term retention of the information.

## 1994-1995 Kindergarten Alphabet Test

August'94: Pre-test class average - 31.5\%
Min. score 0.0\%
Max. score 73.1\%
September '95: Post-test class average - $92.5 \%$
Min. score 81\%
Max. score 100.0\%

## 1995-1996 Kindergarten Alphabet Test

August '95: Pre-test class average - 42.2\%
Min. score 0.0\%
Max. score 100.0\%
J une '96: Post-test class average - 86.5\%
Min. score 23.1\%
Max. score 100.0\%

## 1996-1997 Kindergarten Alphabet Test

August '96: Pre-test class average - 67.4\%<br>Min. score 0.0\%<br>Max. score 100.0\%<br>J une '97: Post-test class average - 96.5\%<br>Min. score 77.0\%<br>Max. score 100.0\%

## First Grade Word Test

Students were asked to read a list of 35 sight words. The test was administered one-on-one. The words represented all the words the students had mastered that year using Davis Symbol Mastery.

## 1995-1996 First Grade Word Test

September '95: Pre- test class average - 58.4\%
Min. score 0.0\%
Max score 100.0\%

J une '96: Post-test class average - 98. 5\%
Min. score 89.0\%
Max. score 100.0\%

## 1996-1997 First Grade Word Test

This test was administered the same as in 96-97 with the difference that the students were pre-tested on 46 words and post-tested on 56 words.

September '96: Pre-test class average - 28.8\%
Min. score 2.0\%
Max. score 98.0\%
J une '97: Post-test class average - 98.9\%
Min. score 80.0\%
Max score 100.0\%

## What types of words and definitions did the first grade students master?

| a | he | then |
| :--- | :--- | :--- |
| after | I | there |
| all | in | these |
| an | is | they |
| and | it | this |
| are | last | those |
| as | none | through |
| at | not | to |
| away | of | up |
| back | off | was |
| be | on | what |
| before | one | when |
| between | or | where |
| by | some | which |
| down | than | while |
| for | that | who |
| from | the | whose |
| front | their | why |
| had | theirs | you |
| have | them |  |

## Teacher Observations:

## Kindergarten teacher and aides observed the following:

- $63 \%$ of students were able to write ALL letters and numerals correctly with 100\% accuracy. (no reversals or transposing)
- $97 \%$ of students were able to write letters and numerals correctly with $80 \%$ accuracy. (no reversals or transposing)
- $93 \%$ of students were able to correctly identify the following punctuation marks: period, exclamation mark, question mark and comma.
- ALL students were able to give an accurate oral dictionary definition for the words they had created in clay with $75 \%$ or better accuracy.
- $83 \%$ of students were able to give an accurate oral dictionary definition for ALL the words they had created in clay.
- ALL students were able to spell $75 \%$ of the words they had created in clay.
- $80 \%$ of the students were able to spell ALL of the words they had created in clay.


## First Grade teacher observed the following:

- The average student was able to accurately spell $89 \%$ of the words created in clay.


## How did the students feel about using the clay?

- In 1996 84\% of the first grade students found using the clay helpful.
- In 1997 100\% of the first grade students found the clay to be helpful.
- Students' comments when asked, "How did clay help you?"
"It made pictures in my head."
"I learned the meanings of words."
"It helps me spell."
"It's fun"
"You learn definitions."
"It helps in learning."
'It helps me remember words."
"It helps me be creative."
"It just does."
"It helps me learn words."
"It helps me remember words better."
"It's relaxing."
"It's creative."
"I like making things."


## What is the next step for the Davis K-2 School Program?

In 1997-98, we are working with fifteen classrooms in five different schools instead of just two classrooms at one school. Second Grade is being included. Independent testing is being done, instead of teacher testing, at the beginning and end of the school year. Testing information from control groups with similar socio-economic demographics to each classroom will also be included.

In 1998-99, we plan to further refine the program and repeat the 1997-98 protocols.

Based on these findings, a comprehensive K-2 Teacher Training Program will be developed and offered by Davis Dyslexia Association International and its affiliates around the world to teachers and elementary schools wishing to implement similar programs.

## Appendix



## Kindergarten Alphabet '94-'95



## Kindergarten Numerals Test 1995-1996

| name | number | pre test possible:20 | September '95 | post test possible:20 | June '96 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| kendall | 1 | 9 | 45\% | 20 | 100\% |
| fred | 2 | 7 | 35\% | 20 | 100\% |
| emily | 3 | 8 | 40\% | 20 | 100\% |
| brendan | 4 | 8 | 40\% | 20 | 100\% |
| ikeonia | 5 | 9 | 45\% | 20 | 100\% |
| arthur | 6 | 1 | 5\% | 11 | 55\% |
| neil | 7 | 2 | 10\% | 20 | 100\% |
| georgia | 8 | 10 | 50\% | 20 | 100\% |
| jenna | 9 | 6 | 30\% | 20 | 100\% |
| emily | 10 | 7 | 35\% | 20 | 100\% |
| nicholas | 11 | 7 | 35\% | 19 | 95\% |
| jenni | 12 | 10 | 50\% | 20 | 100\% |
| timothy | 13 | 1 | 5\% | 16 | 80\% |
| alex | 14 | 1 | 5\% | 20 | 100\% |
| courtney | 15 | 5 | 25\% | 20 | 100\% |
| alexander | 16 | 7 | 35\% | 20 | 100\% |
| eugene | 17 | 10 | 50\% | 20 | 100\% |
| emma | 18 | 3 | 15\% | 18 | 90\% |
| grant | 19 | 2 | 10\% | 20 | 100\% |
| ethan | 20 | 5 | 25\% | 19 | 95\% |
| ivo | 21 | 10 | 50\% | 20 | 100\% |
| sandra | 22 | 4 | 20\% | 20 | 100\% |
| evan | 23 | 2 | 10\% | 20 | 100\% |
| kendall | 24 | 5 | 25\% | 19 | 95\% |
| stevie | 25 | 7 | 35\% | 20 | 100\% |
| michael | 26 | 1 | 5\% | 19 | 95\% |
| spencer | 27 | 3 | 15\% | 20 | 100\% |
| whitney | 28 | 10 | 50\% | 20 | 100\% |
| class average |  | 5.71 | 29\% | 19.32 | 97\% |


| pre test | September '95 | post test <br> possible:26 |
| :--- | :--- | :--- |
| possible:26 |  |  |

possible:26

| 16 | $61 \%$ | 21 | $81 \%$ |
| ---: | ---: | ---: | ---: |
| 23 | $88 \%$ | 26 | $100 \%$ |
| 25 | $96 \%$ | 26 | $100 \%$ |
| 1 | $4 \%$ | 12 | $46 \%$ |
| 6 | $23 \%$ | 26 | $100 \%$ |
| 1 | $4 \%$ | 6 | $23 \%$ |
| 16 | $61 \%$ | 25 | $96 \%$ |
| 25 | $96 \%$ | 26 | $100 \%$ |
| 0 | $0 \%$ | 24 | $92 \%$ |
| 13 | $50 \%$ | 25 | $96 \%$ |
| 19 | $73 \%$ | 24 | $92 \%$ |
| 19 | $73 \%$ | 25 | $96 \%$ |
| 0 | $0 \%$ | 19 | $73 \%$ |
| 0 | $0 \%$ | 26 | $100 \%$ |
| 6 | $23 \%$ | 26 | $100 \%$ |
| 8 | $30 \%$ | 26 | $100 \%$ |
| 26 | $100 \%$ | 26 | $100 \%$ |
| 5 | $19 \%$ | 22 | $85 \%$ |
| 3 | $12 \%$ | 23 | $88 \%$ |
| 2 | $8 \%$ | 6 | $23 \%$ |
| 21 | $81 \%$ | 26 | $100 \%$ |
| 6 | $23 \%$ | 24 | $92 \%$ |
| 0 | $0 \%$ | 15 | $58 \%$ |
| 18 | $69 \%$ | 26 | $100 \%$ |
| 8 | $30 \%$ | 26 | $100 \%$ |
| 0 | $0 \%$ | 22 | $85 \%$ |
| 15 | $58 \%$ | 26 | $100 \%$ |
| 25 | $96 \%$ | 25 | $96 \%$ |
| 10 |  |  |  |
| 106 | $42 \%$ | 22.5 | $87 \%$ |



| Kindergarten Numerals |  |  | 1996-1997 |  |  | Kindergarten Alphabet Test |  |  | 1996-1997 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | number | pre-test possible:20 | Sept '96 | post-test possible:20 | June '97 | pre-test <br> possible:26 | Sept '96 | post-test possible:26 | Jun-97 |
| andrew | , | 18 | 8 90\% | 20 | 100\% | 23 | 88\% | 26 | 100\% |
| andrew | 2 | 20 | 0 100\% | 20 | 100\% | 0 | 0\% | 26 | 100\% |
| kimberly | 3 | 19 | 9 95\% | 20 | 100\% | 26 | 100\% | 26 | 100\% |
| nikita | 4 | 20 | 0 100\% | 20 | 100\% | 24 | 92\% | 25 | 96\% |
| lauren | 5 | 19 | 9 95\% | 20 | 100\% | 25 | 96\% | 26 | 100\% |
| muneet | 6 | 20 | 0-100\% | 20 | 100\% | 26 | 100\% | 26 | 100\% |
| parsa | 7 | 20 | 0 100\% | 20 | 100\% | 16 | 62\% | 22 | 85\% |
| jared | 8 | 17 | 7 85\% | 19 | 95\% | 13 | 50\% | 25 | 96\% |
| carolyn | 9 | 20 | - 100\% | 20 | 100\% | 26 | 100\% | 26 | 100\% |
| aaida | 10 | 18 | 8 90\% | 20 | 100\% | 21 | 81\% | 26 | 100\% |
| adam | 11 | 20 | 0 100\% | 20 | 100\% | 22 | 85\% | 20 | 77\% |
| glenn | 12 | 20 | 0 100\% | 20 | 100\% | 25 | 96\% | 22 | 85\% |
| ariela | 13 | 18 | 8 90\% | 20 | 100\% | 24 | 92\% | 26 | 100\% |
| emily | 14 | 20 | - 100\% | 20 | 100\% | 25 | 96\% | 25 | 96\% |
| james | 15 | 18 | 8 90\% | 20 | 100\% | 24 | 92\% | 26 | 100\% |
| christina | 16 | 20 | 0 100\% | 20 | 100\% | 22 | 85\% | 26 | 100\% |
| andrew | 17 | 20 | - 100\% | 20 | 100\% | 22 | 85\% | 25 | 96\% |
| katarina | 18 | 20 | 0 100\% | 20 | 100\% | 2 | 8\% | 25 | 96\% |
| tahoura | 19 | 20 | 0 100\% | 20 | 100\% | 23 | 88\% | 26 | 100\% |
| jeff | 20 | 11 | 1 55\% | 20 | 100\% | 2 | 8\% | 22 | 85\% |
| risha | 21 | 20 | 0 100\% | 20 | 100\% | 26 | 100\% | 26 | 100\% |
| travis | 22 | 11 | 1 55\% | 20 | 100\% | 3 | 12\% | 26 | 100\% |
| michelle | 23 | 11 | 1 55\% | 20 | 100\% | 6 | 23\% | 26 | 100\% |
| jonathan | 24 | 11 | 1 55\% | 18 | 90\% | 25 | 96\% | 25 | 96\% |
| sesi | 25 | 11 | 1 55\% | 20 | 100\% | 1 | 4\% | 25 | 96\% |
| fiona | 26 | 11 | 1 55\% | 20 | 100\% | 26 | 100\% | 26 | 100\% |
| kevin | 27 | 11 | 1 55\% | 20 | 100\% | 0 | 0\% | 26 | 100\% |
| denny | 28 | 20 | 0 100\% | 20 | 100\% | 22 | 85\% | 25 | 96\% |
| billal | 29 | 17 | 7 85\% | 20 | 100\% | 16 | 62\% | 25 | 96\% |
| mai | 30 | 11 | 1 55\% | 20 | 100\% | 9 | 35\% | 26 | 100\% |
| class ave |  | 17.066 | 6 85\% | 19.9 | 99\% | 17.5 | 67\% | 25.1 | 97\% |

[^0]

## 1995-1996

## First Grade Word Test

| name | number | pre-test S possible:35 | September '95 | post-test possible:35 | June '96 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| tracy | 1 | 24 | 69\% | 34 | 97\% |
| justin | 2 | 13 | 37\% | 34 | 97\% |
| austin | 3 | 35 | 100\% | 35 | 100\% |
| rima | 4 | 0 | 0\% | 35 | 100\% |
| ashley | 5 | 3 | 9\% | 34 | 97\% |
| Iori | 6 | 35 | 100\% | 35 | 100\% |
| annie | 7 | 35 | 100\% | 35 | 100\% |
| madhushee | 8 | 29 | 83\% | 34 | 97\% |
| shubra | 9 | 18 | 51\% | 35 | 100\% |
| shilpika | 10 | 19 | 54\% | 35 | 100\% |
| chance | 11 | 10 | 29\% | 32 | 91\% |
| kate | 12 | 19 | 54\% | 35 | 100\% |
| dylan | 13 | 10 | 29\% | 32 | 91\% |
| kaylee | 14 | 35 | 100\% | 35 | 100\% |
| emma | 15 | 31 | 89\% | 35 | 100\% |
| jason | 16 | 29 | 83\% | 35 | 100\% |
| kol | 17 | 11 | 31\% | 35 | 100\% |
| sonya | 18 | 14 | 40\% | 35 | 100\% |
| megan | 19 | 33 | 94\% | 35 | 100\% |
| alexander | 20 | 1 | 3\% | 31 | 89\% |
| alexander | 21 | 35 | 100\% | 35 | 100\% |
| irene | 22 | 17 | 49\% | 35 | 100\% |
| matthew | 23 | 1 | 3\% | 35 | 100\% |
| chloe | 24 | 35 | 100\% | 35 | 100\% |
| andy | 25 | 17 | 49\% | 35 | 100\% |
| mark | 26 | 17 | 49\% | 35 | 100\% |
| jaimie | 27 | 35 | 100\% | 35 | 100\% |
| jazmine | 28 | 10 | 29\% | 35 | 100\% |
| class average |  | 20.39 | 58\% | 34.5 | 99\% |

## First Grade Puncutation Test

1996-1997

| name | number | recognition pre-test possible:5 | Sept '96 | post-test possible:5 | June '97 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| jessica | 1 | 1 | 20\% | 4 | 80\% |
| stephen | 2 | 2 | 40\% | 5 | 100\% |
| angela | 3 | 3 | 60\% | 5 | 100\% |
| neil | 4 | 3 | 60\% | 5 | 100\% |
| mark | 5 | 3 | 60\% | 5 | 100\% |
| kendall | 6 | 1 | 20\% | 3 | 60\% |
| grace | 7 | 3 | 60\% | 4 | 80\% |
| timothy | 8 | 1 | 20\% | 5 | 100\% |
| stevie | 9 | 3 | 60\% | 5 | 100\% |
| ethan | 10 | 1 | 20\% | 4 | 80\% |
| emily | 11 | 3 | 60\% | 5 | 100\% |
| stephen | 12 | 1 | 20\% | 3 | 60\% |
| spenser | 13 | 2 | 40\% | 5 | 100\% |
| jayant | 14 | 3 | 60\% | 5 | 100\% |
| amanda | 15 | 2 | 40\% | 4 | 80\% |
| grant | 16 | 2 | 40\% | 5 | 100\% |
| jenna | 17 | 2 | 40\% | 5 | 100\% |
| kendall | 18 | 3 | 60\% | 5 | 100\% |
| kendrick | 19 | 3 | 60\% | 5 | 100\% |
| class ave | ge: | 2.21 | 42\% | 4.578 | 92\% |

what to do at punctuation when reading

| pre-test |
| :--- |
| possible:5 |

Sept ' 96
post-test
possible:5 $\quad$ June ' 97

| 1 | $20 \%$ | 5 | $100 \%$ |
| ---: | ---: | ---: | ---: |
| 1 | $20 \%$ | 5 | $100 \%$ |
| 1 | $20 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 3 | $60 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 1 | $20 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 3 | $60 \%$ |
| 1 | $20 \%$ | 4 | $80 \%$ |
| 2 | $40 \%$ | 4 | $80 \%$ |
| 1 | $20 \%$ | 2 | $40 \%$ |
| 3 | $60 \%$ | 3 | $60 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 2 | $40 \%$ | 5 | $100 \%$ |
| 0 | $0 \%$ | 5 | $100 \%$ |
| 3 | $60 \%$ | 5 | $100 \%$ |
| 1 | $20 \%$ | 5 | $100 \%$ |
|  |  |  |  |
| 1.052 | $21 \%$ | 4.52 | $91 \%$ |

First Grade Word Test
1996-1997

| name | number | words pre-test possible | $\begin{aligned} & \text { Sept '96 } \\ & : 46 \end{aligned}$ | post-test possible:56 | June '97 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| jessica | 1 | 4 | 9\% | 56 | 100\% |
| stephen | 2 | 45 | 98\% | 56 | 100\% |
| angela | 3 | 9 | 20\% | 56 | 100\% |
| neil | 4 | 9 | 20\% | 56 | 100\% |
| mark | 5 | 7 | 15\% | 56 | 100\% |
| kendall | 6 | 5 | 11\% | 56 | 100\% |
| grace | 7 | 40 | 87\% | 56 | 100\% |
| timothy | 8 | 2 | 4\% | 45 | 80\% |
| stevie | 9 | 6 | 13\% | 56 | 100\% |
| ethan | 10 | 1 | 2\% | absent | absent |
| emily | 11 | 9 | 20\% | 56 | 100\% |
| stephen | 12 | 41 | 89\% | 56 | 100\% |
| spenser | 13 | 6 | 13\% | 56 | 100\% |
| jayant | 14 | 8 | 17\% | 56 | 100\% |
| amanda | 15 | 8 | 17\% | 56 | 100\% |
| grant | 16 | 4 | 9\% | 56 | 100\% |
| jenna | 17 | 4 | 9\% | 56 | 100\% |
| kendall | 18 | 7 | 15\% | 56 | 100\% |
| kendrick | 19 | 37 | 80\% | 56 | 100\% |
| class ave | rage: | 13.26 | 29\% | 55.38 | 99\% |


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