

Dyslexia: The most Prevalent Language-Based Learning Disability

John Alexander, M.Ed.

Head of School

alexanderj@grovesacademy.org

www.grovesacademy.org

Our Mission

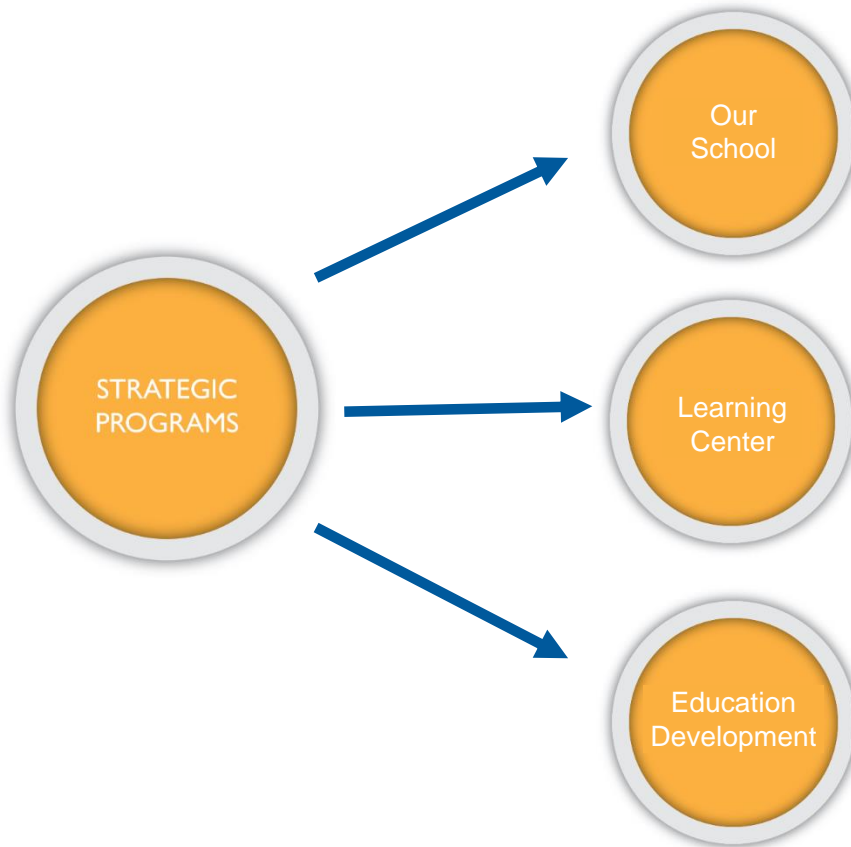
We build confidence, success, and purpose through transformative learning experiences.

Our Vision

To redefine the way our nation is taught, one student, one teacher, and one school at a time.

Our Values

Authenticity ➤ Collaboration ➤ Compassion ➤ Discovery ➤ Tenacity



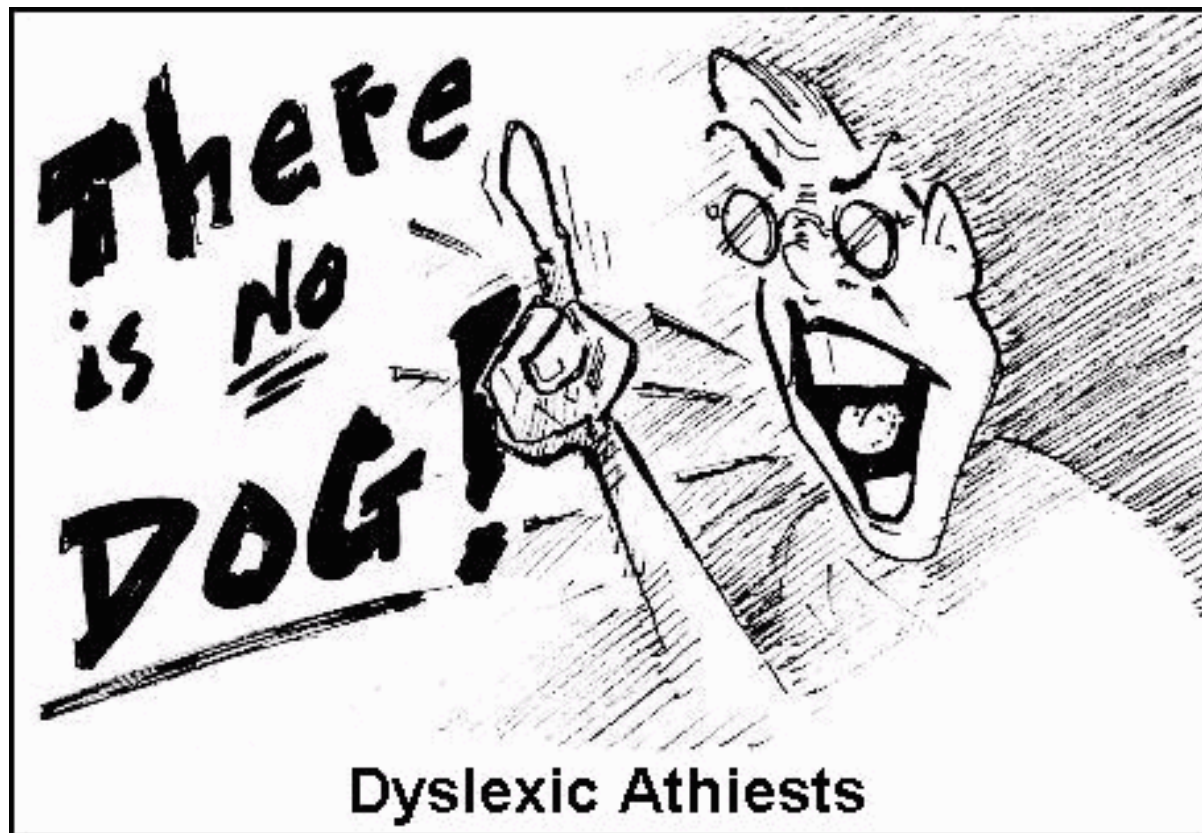
Founded in 1972, today our school is a national leader in the education of children with learning disabilities and attention disorders, as well as a center for literacy instruction.

The Learning Center at Groves Academy allows families from the community access to our educational offerings, including diagnostic testing, tutoring, speech and language therapy, assistive technology training, and career counseling.

Groves provides professional development for teachers and schools. Our vision is to redefine the way our nation is taught one student, one teacher and one school at a time.

- An unexpected weakness in a sea of strengths
- Continuum

- The teaching of reading and spelling must be viewed through a scientific lens.
- Reading does not come naturally (as speech does) and relies heavily on how we hear and manipulate sounds even before we see printed words.
- Reading is learned and, therefore, must be taught, supported, and sustained.



- On December 1 a Minneapolis special education public school teacher called and asked for help in creating an IEP for a fifth grade dyslexic student and said:
“What do I have to do? I thought they (dyslexic students) were mentally retarded.”
- Earlier this fall, a teacher in the Anoka-Hennepin school district called regarding a dyslexic student and remarked:
“I thought dyslexic students were behavior problems.”

- Finally, it is very frustrating to hear teachers tell students with a learning difficulty to just **“try harder”** as if it were an issue of motivation.
- This would be similar to asking someone with a vision disability to **look harder** at an object so that he can see it.

Most adults, even experienced teachers of reading and writing, conceptualize words in their

written rather than their spoken form

unless they are taught to pay attention specifically to speech sounds.

What is this child trying to spell?

“jrs”

- For at least 20% to 30% of our nation's children, reading is one of the most difficult tasks they will have to master throughout their schooling.
- About 40% of people with dyslexia have ADHD; about 40% of people with ADHD have dyslexia.

- There is just a **25% chance** of a student with a reading problem **reaching grade level in reading** during his school experience if the problem is not identified and proper forms of intervention given by the **start of third grade**.

Source: Research sponsored by National Institute of Health (NIH)

- Discrepancy Model leads to failure

- Reading failure is a **serious national problem** that cannot be simply attributed to poverty, immigration, or the learning of English as a second language.

- Approximately 75% of all people with a learning disability have **difficulty reading and spelling**.
- It is estimated that 70% of our **prison population** has a learning disability.
- Most disturbing: some southern states are planning for **future prison growth** by studying illiteracy rates of middle school students.

An analogous situation to health care:

- **Primary prevention versus tertiary, critical care**

- A **family history** of delayed speech and language development or literacy problems
- **Difficulty rhyming** by the age of four
- **Errors in letter naming** by the end of kindergarten (best predictor)
- **Difficulty finding the words** needed to express basic thoughts and ideas

- **Difficulty with the comprehension** of spoken or written language
- **Difficulty remembering colors and sequences** (numbers, seasons, days of week, months, etc.)
- Children with **memory issues**

- **Difficulty with directionality** with regard to space and time (right and left, up and down, early and late, yesterday and tomorrow)
- **Difficulty decoding** words—single word identification
- **Difficulty encoding** —spelling— words
- **Slow rate of writing**

- If you suspect your child has dyslexia or any learning difficulty what should you do
- A psycho-educational assessment is needed
- Two choices:
 - Private
 - Public School System

- Psycho-educational assessment includes:
- Cognitive Potential & Processing
- Achievement Testing:
- Word decoding
- Fluency
- Comprehension
- Spelling
- Written Expression
- Speech & Language (if needed)
- Math

To be literate you must have at least an implicit knowledge of:

Phonemic Awareness:

The ability to sequence, segment and manipulate speech sounds—a primary building block for reading and spelling

/CAT/ is comprised of three speech sounds, /C/ /A/ /T/

To be literate you must have at least an implicit knowledge of:

Phonology:

Rules governing speech sounds.

In English we can't have the "trs" combination, but we can have "str"

Difference between /p/ and /b/

To be literate you must have at least an implicit knowledge of:

Phonics:

Symbol-sound and sound-symbol relationships.

To be literate you must have at least an implicit knowledge of:

Morphology:

The study of word structure and meaning

To be literate you must have at least an implicit knowledge of:

Orthography:

A language's spelling system

The English Language spelling system is largely rule-based:

hop + ing = hopping

hope + ing = hoping

marry + ed = married

play + ed = played

- The most reliable indicator of **difficulties in comprehending** what is read is the ability to read quickly and accurately (reading fluency).
- Reading the English language requires understanding the **alphabetic writing system** — understanding that the alphabetic print must be converted into sounds and meaningful messages.

- **Effective classroom instruction** in the early grades by well prepared teachers is the **most powerful method** for preventing reading and learning problems.
- When teaching children who have a difficult time learning to read, the research indicates that **explicit, systematic instruction** is most effective.

Instruction should include:

- Teaching **phonemic awareness** at an early age (kindergarten)
- Teaching the **common sound-spelling relationships** in words
- Teaching children how to **say the sounds** in words

Instruction should:

- Use text that is composed of words that use **sound spelling correspondences** that children have learned
- Use **interesting stories** to develop vocabulary and language comprehension

- The most **effective classroom method** for early reading instruction involves a combination of:
- **Explicit instruction** in word recognition skills and
- **Reading comprehension strategies** with the opportunities to apply and practice these skills in literature

Instruction should be:

- Diagnostic/prescriptive
- Direct
- Explicit
- Sequential
- Multi-sensory
- For older students, analytical

Types of multi-sensory instruction

- Lindamood-Bell Phonemic Awareness (LIPS)
- Orton-Gillingham
- Slingerland
- Wilson
- Herman
- Alphabetic Phonics

- When is “ck” used in spelling?
- What letters signal that g is pronounced like a /j/?
- List all the ways that you can think of to spell /k/?
- What are the six common syllable types in English?
- When adding a suffix to a word ending in “y,” what is the rule?
- What is the “silent-e” rule for spelling?

From the survey, we found:

- 27% could identify the number of morphemes in a word
- 10% could consistently identify consonant blends
- How many speech sounds in “ox”?
- 25% knew that “ox” has 3 speech sounds;

The Importance of Understanding Language Structure

Error Analysis:

“jrip” spells _____?

Why?

The Importance of Understanding Language Structure

Error Analysis:

“chrane” spells _____?

Why?

The Importance of Understanding Language Structure

Error Analysis:

How should a teacher handle the misspelling of

Sine for Sign?

The Importance of Understanding Language Structure

Error Analysis:

“Sbider” spells _____?

Why?

The Importance of Understanding Language Structure

Error Analysis:

“Buddr” spells _____?

Why?

The Importance of Understanding Language Structure

Error Analysis:

How should a teacher handle the misspelling of

Government for Government?

Yale's Haskins Laboratory:

MRI study pinpointing the neural activity of good readers versus dyslexic readers controlling for:

- IQ
- SES
- Other relevant variables

Haskins Laboratory Findings:

- The neural pathways of dyslexics light up differently than the pathways of “normal” readers.
- The neural pathways can be rewired with proper intervention.

Haskins Laboratory Findings:

Four variables of intervention dependent upon where on the continuum a student falls:

- The intervention itself
- Intensity
- Frequency
- Duration

California Kindergarten Three-year Study:

- Avg. cost of the intervention: \$200 per student per year (\$600/student for three years)
- 2001-02: 11 second grade students in Resource Room for reading \$3,000 per student (conservative estimate of special education cost)
- \$3,000 per year for 11 students; over ten years (third through twelfth grade) = \$330,000
- 2003-04 year after 3 year identification and intervention 2 students in second grade Resource Room for reading; this is an 80% reduction
- \$6,000 per year for 2 students for Resource Room for reading; over ten years = \$60,000
- Savings of \$270,000 over 10 years for this one class

Sally Shaywitz's, Overcoming Dyslexia

International Dyslexia Association (IDA) 410.296.0232

www.interdys.org

Louisa Moats, "The Missing Foundation in Teacher Education"

Louisa Moats, From Speech to Print

National Institutes of Child Health and Human Development
(NICHD) <http://www.nichd.nih.gov/default.htm>

National Reading Panel: Teaching Children to Read

www.nationalreadingpanel.org

Groves Academy (952.920.6377) info@grovesacademy.org;

www.grovesacademy.org

Upper Midwest Branch of the International Dyslexia Association
(UMBIDA) 651.450.7589

Orton Gillingham of Minnesota (OG-M) 763.951.2379

www.ortongillingham-mn.org

Lindamood-Bell of the Twin Cities: 952.835.0700

www.readingrockets.org



Thank you

grovesacademy.org | 952.920.6377