

# Teaching Students with Dyslexia - using the MIND Strengths Theory

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## Definition of Dyslexia

- Dyslexia is a specific learning disability that is neurological in origin.
- It is characterized by difficulties with accurate and/or fluent word recognition, and by poor spelling and decoding abilities.
- These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction.
- Secondary consequences may include problems in reading comprehension and reduced reading experiences that can impede growth of vocabulary and background knowledge.



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## A NEW VIEW OF DYSLEXIA

- DOUG
- LINDSEY
- PETE



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## Dyslexia Processing predisposes individuals to important abilities in many mental functions:



- Three dimensional spatial reasoning and mechanical ability
- The ability to perceive relationships like analogies, metaphors, paradoxes, similarities, differences, implications, gaps and balances
- The ability to remember important personal experiences and to understand abstract information in terms of specific examples
- The ability to perceive and take advantage of subtle patterns in complex and constantly shifting systems or data sets.

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## The M Strength in MIND Theory

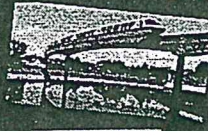


### Material Reasoning: A 3-D Advantage:

M-strengths are abilities that help us reason about the physical or material world - that is, about the shape, size, motion, position, or orientation of space of physical objects, and the ways those objects interact.

Real world jobs for M Strength - designers, mechanics, engineers, plumbers, surgeons, dentists, chemists, computer specialists, architects, radiologists, carpenters, etc.

### LANCE'S Story



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## The I Strength in MIND Theory

### Interconnected Reasoning: A Web of Meanings:

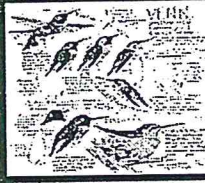
I-strengths create exceptional abilities to spot connections between different objects, concepts, or points of view. They include:

The ability to see how phenomena (like objects, ideas, events, or experiences) are related to each other, either by "likeness" (similarity) or "togetherness" (that is, association, like correlation or cause and effect).

The ability to see phenomena from multiple perspectives, using approaches and techniques borrowed from many disciplines.

The ability to unite all kinds of information about a particular object of thought into a single global or big-picture view and to determine its key, or most essential or relevant aspects in particular contexts.

### Jack's Story (John Muir Law)



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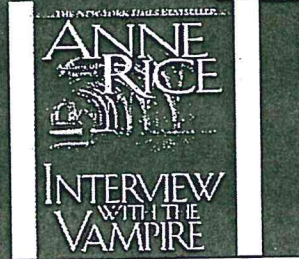


## The N strength in MIND Therapy

### Narrative Reasoning

N-strengths are the ability to construct a connected series of "mental scenes" from fragments of past personal experience (that is from episodic or personal memory) that can be used to recall the past, explain the present, stimulate potential future or imaginary scenarios, and grasp and test important concepts.

\*Anne's Story\*



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## Key points about N Strengths

1. Many individuals with dyslexia show a profound difference between their powerful episodic memories for events and experiences and their much weaker semantic and procedural memories
2. Episodic memory has a highly narrative or "scene based" format in which concepts and ideas are conceived or recalled as experiences, examples, or enactments rather than abstract, non-contextual definitions
3. The episodic construction system can use fragments of stored experiences not only to reconstruct and remember the past but also to imagine the future, solve problems, test the fitness of proposed inventions or plans, or create imaginary scenarios and stories
4. Episodic construction and creativity can be closely linked



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## N continued....

5. Individuals who rely on episodic or narrative concepts rather than abstract, non-contextual facts will typically reason, remember, and learn better using examples and illustrations rather than abstract concepts or definitions.
6. Many individuals with dyslexia will learn and remember better by transforming abstract information into narrative or case-based information through the use of memory stories or strategies
7. Many individuals will enjoy creative writing even though they may have difficulty with formal academic writing or reading; so teachers should look carefully for signs of narrative ability in students with dyslexia, and they should help talented individuals with dyslexia further their abilities through the use of appropriate tutoring or accommodations



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## The D Strength in MIND Theory



- Dynamic Reasoning
- D-strengths create the ability to accurately predict past or future states using episodic simulation. D-strengths are especially valuable for thinking about past or future states whose components are variable, incompletely known or ambiguous, and for making practical, or "best fit," predictions or working hypotheses in settings where precise answers aren't possible.
- N strengths and D strengths key difference is the distinction between creativity and creative prediction.

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## Key Points about D-Strengths



- Dynamic reasoning is the ability to "read patterns in the real world that allow us to reconstruct past events we haven't witnessed, predict likely future events or simulate and preview plausible outcomes of inventions or various courses of action.
- It is especially valuable in situations where all the relevant variables are incompletely known, changing, or ambiguous.
- The particular power lies in the fact that it is based on matching patterns that are similar in form to the original observations, rather than on abstract generalizations.
- Dynamic reasoning often employs insight-based processing, which is powerful but often slow, can appear passive, and may result in difficulty explaining intervening steps.

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## D Continued.....



- Its effectiveness in exceptional situations is enhanced by strong abilities in pattern separation, which increase the available memory patterns; and by a highly interconnected brain circuitry that favors that ability to link to more distant unusual patterns.
- Individuals with dyslexia who possess prominent D-strengths often thrive in precisely the kinds of rapidly changing and ambiguous setting that others find the most difficult and confusing.
- Vince's Story"

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### Summary of Key Points on Reading

- Skilled reading requires strengths in decoding, fluency, and comprehension
- Dyslexic students require extra practice to build decoding skills, and the most effective practice involves explicit training in phonics and phonological awareness
- Orton-Gillingham based methods come in a wide variety of forms but all achieve their success in part by turning learning into a memorable experience.

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### RECAP- MIND Theory of Dyslexia

- M - Material Reasoning
- I - Intergrated Reasoning
- N - Narrative Reasoning
- D - Dynamic Reasoning

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### READING

- Fluency training employs both oral and silent reading practice to improve word identification, problem solving, and reading speed. Reading materials should be chosen that grab the student's attention, use straightforward sentences, and employ familiar vocabulary. Dyslexic big picture reasoning skills should also be tapped by providing them context for what they'll be reading.
- USE SERIES BOOKS

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## Reading - Continued.....



- Dyslexic students often possess cognitive strengths that will enable them to become good interpreters of texts, once barriers to accessing the words in the text are removed.
- In addition to reading instruction, dyslexic students should be given access to recorded books and text-to-speech technology, so their exposure to literate information and their cognitive development can proceed at full speed.
- New technologies often permit "speed listening," which can greatly improve the usefulness and attention-holding ability of recorded texts
- Parents can play an important role in turning the home into an environment that encourages literacy for struggling readers by engaging children in challenging conversations and providing access to literacy-building alternatives to print, such as books on tape, text-to-speech reading programs and films.

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## Summary of Key Points on Writing



- Learning to write is especially difficult for many students with dyslexia because they will often struggle with handwriting, expressing thoughts in words, or combining words into sentences and paragraphs.
- With respect to handwriting, students with dyslexia often require more prolonged and explicit instruction in skills like letter formation, spacing and use of conventions. Multisensory programs that engage strengths and turn learning into a memorable experience are often the most beneficial in helping students gain automaticity in these areas.

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## Writing...



- For students who lack automaticity in handwriting, handwriting and written expression should be taught as separate subjects and practiced as handwriting, while ideas should be communicated by oral dictation or keyboarding.
- As with reading, the interests and special abilities of students with dyslexia should be considered and engaged in all assignments.
- Students with dyslexia often struggle with sentence formation due to difficulties mastering syntax or the logic of different sentence types. Explicit instruction in these skills is often required, and students should achieve sentence-level mastery before moving on to paragraph or essay-level writing.

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## Writing - Continued.....



- Keyboarding is extremely useful for all student with dyslexia, and they should use it to write all passages above the sentence level. Not only does keyboarding lower the working memory burden imposed by writing for the many students with dyslexia, but it also provides helpful functions like read-aloud, cut and paste, and spell check, each of which greatly lowers the burdens of revising and polishing work. Keyboarding software equipped with spelling and grammar checking also has valuable educational effects because it provides immediate feedback on errors for struggling students.

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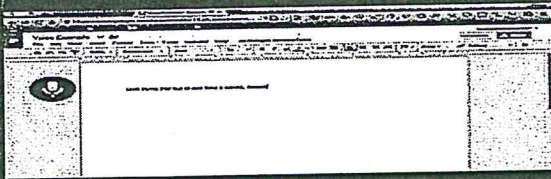
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## Google Docs - Voice Typing



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## How to Help Students in Elementary and Middle School



- During their early years, it's every bit as important to make sure that children with dyslexia develop a healthy self-concept as it is to make sure that they develop basic skills in reading and writing.
- A healthy self concept can be fostered through the right combination of internal and external supports
- Internal supports include: the self confidence that comes from focusing on and developing strengths, a sense of optimism and a firm belief in a bright future, an understanding of how one's own mind works, including what's unique and special about how dyslexic minds work
- External supports include the care received from parents, teachers, and the right school environment.

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### More info.....



- The appropriate educational environment must be determined for each child. All good environments provide challenges that are doable and that increase incrementally as progress allows.
- Remediation in areas of weakness must be balanced by interesting and engaging work in areas of strength if students with dyslexia are not to lose heart
- The child's own response is often the best indicator of whether the right balance has been achieved and the right environment identified.
- Dyslexic students can become very stressed, so students that show signs of significant stress in school must be treated with great care and attention.

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### Books on Tape - Ear Reading - How Audio Promotes Literacy



"The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children."

- 85% of what we learn we learn by listening
- Increases reading accuracy by 52%
- Improves comprehension by 76% - provides context, helping children decode words and comprehend challenging text
- Teaches pronunciation, expands vocabulary, increases reading speed, improved fluency
- Combining print and audio increases recall 40% over print alone
- Students can listen and comprehend 2 grade levels about their reading level
- Increases motivation by 67%

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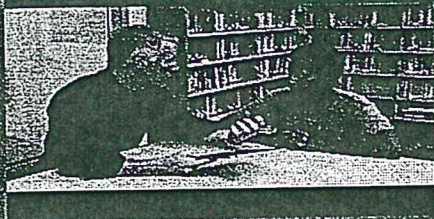
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### Speed Listening



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# Handouts



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