

Explaining Dyslexia: What Educators and Parents Need to Know to Talk about Reading Difficulties

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LEARNING DISABILITY: A WORKING CONSTRUCT

9-23-13

• Learning disabilities reflect natural variations in brain function that predict unexpected difficulty learning skills and concepts valued by the culture in which the individual is expected to perform.

- Supportive life experience can make learning disabilities less severe.
- Learning disabilities may co-exist with variations in achievement due to other causes.
- Secondary consequences of delayed or ineffective intervention may include a diminished sense of self-efficacy, and/or social marginalization.

What does “unexpected” mean?

- Intra-individual versus inter-individual.
- Aptitude discrepancy versus achievement discrepancy.

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“There are neurobiological factors that make people at risk for disability. However, neural systems are malleable, and the predictably concomitant disability can often be prevented by exposing the child to appropriately differentiated instructional programs.”

Fletcher, 3-21-12
a paraphrase

A, so-called, “learning disability” is not a *disability*, in and of itself, but simply a “neurobiological factor” that places the individual “at risk” for disability.

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“Risk is modified by
environment.”

Jack M. Fletcher, Ph.D.

“If we can identify children
early, we may be able to
prevent a learning disability”

(Fletcher & Foorman, 1994)



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“The problem [learning disability] is localized; it is not generalized to all areas of learning.”

Hinshelwood (1902)

IQ is linked to the level of ability to read in the neurotypical individual, but is *not linked* to the level of ability to read in the dyslexic individual.

Shaywitz and others (2010)

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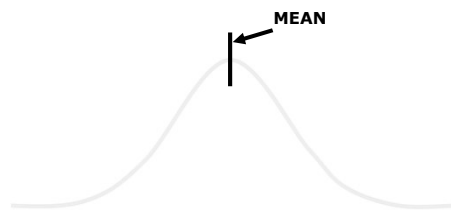
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Natural variations in brain function also account for variations in artistic or athletic talent. Three hundred years ago sense of direction and eye/hand coordination were far more important than the ability to read and write.

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IDENTIFICATION OF A DISABILITY IS A MOVING TARGET



Where the cut-point is placed depends on the reason for identification. The further from the mean, the less likely will be the possibility of false positives.

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THE LABEL “DISABILITY” IS NOT DETERMINED BY THE “DEFICIT ITSELF, BUT ITS SOCIAL CONSEQUENCES.”

VIGOTSKY, 1993, PARAPHRASE

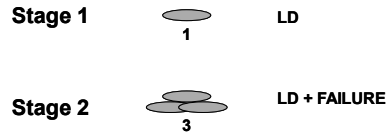


THE CULTURE AND THE TIME IN WHICH YOU LIVE DETERMINE THE SKILLS NEEDED TO PROVIDE FOR SELF, FAMILY, AND COMMUNITY.

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THE PREDICTABLE PROGRESSION OF UNTREATED LEARNING DISABILITIES:



The goal should be to find and fix not wait and see. Dr. Nadine Gaab has said, “we should be using a *prevention* model instead of a *disability* model.”

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**WHAT A LEARNING DISABILITY ISN'T:
APTITUDE - ACHIEVEMENT DISCREPANCY**

“A SEVERE DISCREPANCY BETWEEN ACHIEVEMENT AND INTELLECTUAL ABILITY...”

“REQUIRES A STUDENT TO CROSS A THRESHOLD OF FAILURE.” Nancy Mather

“THE ONLY THING THAT THIS FORMULA PREVENTS IS PREVENTION.” Jack Fletcher

“A WAIT AND FAIL MODEL, IT'S

IMMORAL.” Thomas Hehir (OSEP – Clinton)

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“For twenty-five years, we have used the IQ-achievement discrepancy model, a wait-to-fail model that is known to be: Ineffective, Inefficient, Irrational, Immoral, and Indefensible – consensus in the field is that it must go.”

Dr. Douglas Carnine

It doesn't hold up to scientific scrutiny.

Dr. Timothy Shanahan

“it is antithetical to early intervention” and “more times than not, it reflects poor teaching.”

Dr. Douglas Fuchs

“IQ-Achievement Discrepancy is not a valid means for identifying individuals with LD.”

Dr. Robert H. Pasternack (Assistant Secretary of Education – Bush)

“... neither the presence nor absence of an ability-achievement discrepancy is a reliable or valid indicator of LD.”

Dr. Nancy Mather

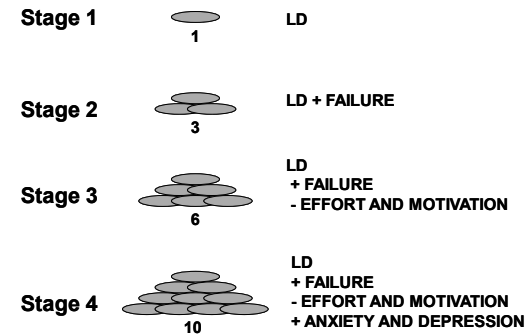
It “constitutes ‘bad science.’”

The National Association of School Psychologists

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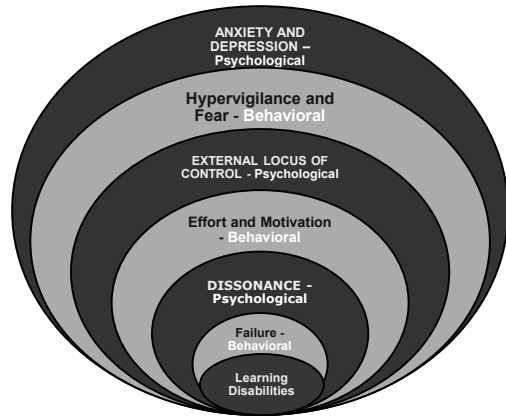
THE PREDICTABLE PROGRESSION OF UNTREATED LEARNING DISABILITIES:



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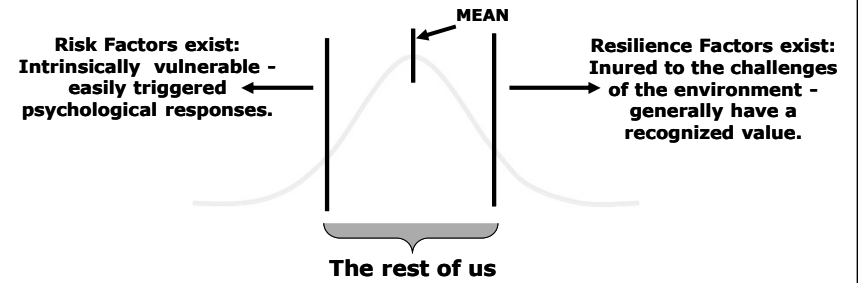
Note that the psychological impact is consequential and not intrinsic.



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All children are different – intrinsic vulnerability is an important therapeutic variable.



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IN THE UNITED STATES UP TO 80% OF CHILDREN WITH A LEARNING DISABILITY HAVE A DIFFICULTY LEARNING TO READ OFTEN REFERRED TO AS DYSLEXIA.

WHAT IS DYSLEXIA?

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FINISHED FILES ARE THE RESULT OF YEARS OF SCIENTIFIC STUDY COMBINED WITH THE EXPERIENCE OF YEARS.

“Skilled readers activate the speech areas of the brain.”

Jane Ashby, Ph.D.

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THE READING GAPS OF THE DEAF AS COMPARED TO THE BLIND SEEM ALMOST A CONTRADICTION. THE BLIND ARE THE BETTER READERS. THIS HAPPENS BECAUSE READING IS CLOSER TO HEARING THAN TO SEEING.
(Jeanne S. Chall)

"The origins of reading difficulty are in spoken language.
(Mark Seidenberg)

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Discover the cause and uncover the solution!

"If you don't know the cause you get instructional paradigms built on faulty assumptions."

G. Reid Lyon, Ph.D.

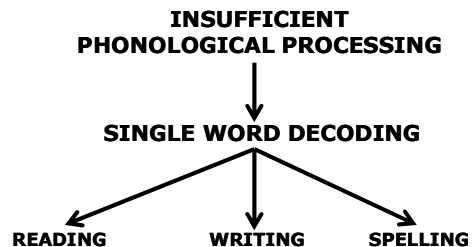
"Treatment stems from an understanding of brain function."

Jack M. Fletcher, Ph.D.

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1994 DEFINITION



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DEFINITION OF DYSLEXIA

(THE RESEARCH COMMITTEE OF THE INTERNATIONAL DYSLEXIA ASSOCIATION AND NICHD 2002)

DYSLEXIA IS A SPECIFIC LEARNING DISABILITY THAT IS NEUROBIOLOGICAL 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 EXPERIENCE THAT CAN IMPEDE GROWTH OF VOCABULARY AND BACKGROUND KNOWLEDGE.

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DECODING: The skill to decipher letters and letter combinations into speech sounds.

SPELLING: (Encoding) The ability to represent speech sounds with letters and letter combinations.

ACCURACY: The ability to identify single words without errors.

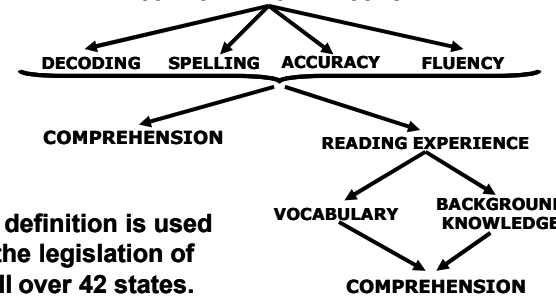
FLUENCY: Reading that sounds as if the reader is speaking and allows the reader to focus on meaning. (Suzanne Carreker)

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2002 DEFINITION

DEFICIT IN THE PHONOLOGICAL COMPONENT OF LANGUAGE



This definition is used in the legislation of well over 42 states.

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BACKGROUND KNOWLEDGE & VOCABULARY

“The importance of prior knowledge to comprehension is included in virtually all modern theories of reading.”

Allington & Cunningham: Anderson & Pearson, 1984; Pressley, Wood, & Woloshyn, 1992; Spivey, 1996).

“... there is a common sense relationship between vocabulary and comprehension-- ... ideas are expressed in words.”

ERIC Digest: Baker, 1995; Nagy, 1998; Nelson-Herber, 1986

“... [prior] knowledge and vocabulary have independent effects ... on what is comprehended.”

Stahl, S.A., ERIC ED # 329919

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“To comprehend one must be able to read 95% of the words and know the meaning of 90-95% of the words being read.”

Reid Lyon 10-4-13

Comprehension is not an intrinsic weakness. Difficulties with text comprehension is a consequence of having less reading experience than intellectual peers, a derivative impact.

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“When students struggle with spelling, they often write fewer words, shorter sentences, and less complex ideas than they may be able to communicate orally.”

Louisa Moats, Ph.D.



“A SYNONYM IS A WORD YOU USE WHEN YOU CAN’T SPELL THE WORD YOU FIRST THOUGHT OF.”

Bert Bacharach

The Look of Love
Do you know the way to San Jose?
Rain drops keep falling on my head

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Disturbing Facts:

25th %ile in Grade 10.0 reads the same as the 75th %ile in Grade 5.5!

Marilyn Adams presentation 3-27-06

“The top 10th percentile read more in the first two days of school than the bottom 10th percentile will read in the whole school year.”

The 70th percentile reader is exposed to 1,168,000 words in text per year as compared to 251,000 for the 30th percentile reader.

Keith Stanovich

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For educators, it makes sense to promote timely and effective intervention:

1. “Waiting one year (for intervention) diminishes effectiveness by 25-50%”

2. The return on investment (ROI) of timely intervention is “\$16 to \$31 for each dollar spent.”

(Al Otiaba & Fuchs, 2006; Wanzek & Vaughn, 2007, and Beddington et al., 2008)

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INFORMED X 3

1) METHOD

RIGOROUS EVIDENCE-BASE, FIELD TESTED, TRACK RECORD OF SUCCESS

2) INSTRUCTOR

SUFFICIENT TRAINING, EXPERIENCE, AND KNOWLEDGE TO DELIVER THE CHOSEN PROGRAM OF INSTRUCTION AS INTENDED BY THE AUTHOR; WITH FIDELITY TO DESIGN.

3) DOSAGE (Don Deshler)

THOSE ELEMENTS NECESSARY TO ENSURE A REASONABLE RATE OF PROGRESS, SUCH AS INTENSITY AND DURATION OF INSTRUCTION.

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The more the depth of teacher knowledge the less instruction needs to be tied to program design.

The less the depth of teacher knowledge the more instruction needs to be tied to program design.

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“Even the most gifted teachers cannot be expected to teach what they do not know.” – Georgette

If you don’t have the knowledge, you have to go by the book.



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There is an inverse relationship between teacher confidence and teacher knowledge.

THE DUNNING-KRUGER EFFECT

The tendency to overestimate one’s own competence and underestimate one’s own ignorance.

“The measure of an education is that you acquire some idea of the extent of your ignorance.” - Christopher Hitchens

Education is the process of moving from cocksure ignorance to thoughtful uncertainty. - R.J. Hildreth

We have quit learning if we don’t feel a little more ignorant every day.” – A. Teacher

"Education is a progressive discovery of our own ignorance." - Will Durant

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The key is the dosage.

Timothy Shanahan, Ph.D. 9/10/22

Dosage: a critical component of effective and appropriate instruction. Jan Hasbrouck, Ph.D. 9/11/22

Serious reading difficulties can be prevented in most students if the right kind of instruction is provided with sufficient intensity early in development.”

J. Torgesen, B. R. Forman, & R. K. Wagner (2014)

In intervention studies, “the key to meaningful effect size was intensity.”

Hollis Scarborough 10-4-13

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**WE ARE ALL ON THE
SAME SIDE – THE
SIDE OF THE CHILD!**

**“The adversary nature of the
proceeding should yield to obtaining
the right result for the child.”
(Lascari v. Bd. of Ed.; J.E. v. DDD)**

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**THERE IS A CRISIS OF CONFIDENCE
IN OUR SCHOOLS – WHY?**

**“... our practice becomes ‘disinviting’
to parents.”**

**“... the very language of special education
erects barriers between parents and
professionals.”**

Reid & Valle (2004) JLD 37(6)

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**Brainstorming can be of great utility as a method for
developing creative solutions.**

**Solutions require problems! Without identifying the
problem there can be no solutions. “A prudent
question is half of wisdom.” Francis Bacon**

**In an environment of mutual “trust,” how should an
IEP Team approach solving this problem:**

**“We don’t have anyone trained, we don’t have enough
children with similar needs to populate a
homogeneous group, and we don’t have the resources
to provide it to everyone that would want it?”**

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A good attitude promotes good attitudes.

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Turning pessimism into optimism

But to and!!!

“He is very smart, but he is not motivated!”

Up until now!!!

“He can’t read!”

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Reflective practice:

In short, reflective practice is a process of self-evaluation to anticipate how your actions prompt reactions in others. Using theory-of-mind.

Am I treating others as I would like to be treated?

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Trust:

1. Value your relationship (“We can’t do this without you.”),
2. show that you understand and care,
3. communicate honestly,
4. inform and educate,
5. admit your weaknesses,
6. do what you promise, and
7. do what you believe to be right.

The best way to be trusted is to trust in return.

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Initial conversation with parent, after testing:

1. We have just completed comprehensive testing and have found some issues that need to be addressed.
2. But do not worry, we have professional staff that are experienced and able to provide the needed services.
3. We will:
 - a. Establish reasonable goals,
 - b. Implement appropriate interventions,
 - c. Monitor progress, and
 - d. Let you know how we feel about the success of our efforts every few months.
4. We are the experts, we know what we are doing, trust us.

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If this was a conversation with an oncologist, you may want to know more - "trust us" would not be enough. For instance, you might want to know:

1. What are you going to do?
2. Who is going to do it?
3. Has he done it before?

The parent is often expected to sit back and let the educators do their job without further inquiry.

The result is a parent that is uninformed, anxious, and a *Monday morning quarterback*.

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Alternatively,

1. Value parents' concerns.
2. Educate parents as to
 - a. what is wrong and
 - b. what needs to be done.
3. Engage parents by involving them.

Value, educate, and engage

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An alternative approach:

1. Testing has revealed a concern that, unless properly treated in a timely manner, could have consequences regarding Jimmy's future potential and happiness.
2. We found that Jimmy has relative weaknesses in processing the phonological component of language, commonly referred to as "dyslexia." Dyslexia is not a disability in the usual sense, but a natural variation in brain function not unlike variations in other abilities like artistic or athletic talent. However, it can affect the development of literacy skills, which at this time and in this culture are very highly valued.

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3. For intervention to be successful it needs to be informed on three levels:

- a. The method should reflect the science of reading and have a track record of success. "We use a structured literacy approach known as (name the program being used)."
- b. The instructor should have sufficient knowledge, experience, and training to deliver the chosen method as intended. "Ms. Smith is certified by (name the organization) and has had specific training in the program we are using."
- c. Such intervention needs to be delivered with sufficient intensity to evidence meaningful progress. "We suggest that three times per week for forty-five minutes per session should be sufficient. However, we will:
 - i. Monitor progress every two weeks,
 - ii. Track progress over a six-to-nine-week period to ascertain whether we are on a path to achieve the intended goal, and
 - iii. Adjust the intensity or the character of intervention, as necessary."

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4. Invite parents to collaborate. "Our efforts will not be as successful as we would hope without your collaboration and partnership. This is how you can help:

- a. If possible, read for 20 minutes every day with Jimmy in a book suggested by Ms. Smith. You read one paragraph and let Jimmy read the next paragraph.
- b. Let Jimmy see you reading on your own and discussing with others what you have read.
- c. Keep abreast of that on which Ms. Smith is focusing so you can reinforce when opportunities present.
- d. Keep us informed if there is any change in Jimmy's attitude toward school and learning (for better or worse)."

If a parents feel that they are collaborators and partners in addressing the educational needs of their child, they will focus on successes more than failures.

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"It is our [the educator's] obligation and responsibility to decode the language of our profession so that parents can rightfully engage in the process."

Reid & Valle (2004) JLD 37(6)

The IEP: Honest and Informative

- This is what we are going to do. → Program
- This is who is going to do it. → Instructor (Trained)
- This is how it is going to be done. → With fidelity
- This is when it is going to be done. → 3 Xs per week
- This is where it is going to be done. → Individual Pull out

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A meaningful IEP



SMURF

Short,
Measurable,
Understandable,
Relevant, and
Functional

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FEAR IS OUR ENEMY!

WHAT WE DO FOR OURSELVES IS MORE IMPORTANT THAN WHAT OTHERS DO FOR US.

MAKE EYE CONTACT

Take good notes!

ARRIVE TO CLASS EARLY

OUTLINE FOCUS ON CONCEPTS

COME TO CLASS PREPARED

MANAGE YOUR TIME

SIT IN FRONT

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Children who feel empowered wear their self-confidence like a suit of armor that attracts others because of its beauty and shields from harm because of its strength.

Empowering children is the goal of every teacher.

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KEYS TO SUCCESS

- **Initiative**
- **Persistence**
- **Resilience**

PASSION

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Dyslexia is not a gift.

Promoting exceptionalism in every child is a shared goal of both parents and educators.

Parents and educators can make it possible for all children to explore their strengths by lighting the “fires” of passion, without requiring that they suffer the challenge of adversity.

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1. All human beings experience variations in brain function.
2. Only those variations that impact adaptive functioning are meaningful.
3. Reading is an important adaptive function that develops over time.
4. Reading relies more on hearing than on seeing.
5. Dyslexia is neither a gift nor a curse.
6. Failure is not a prerequisite.
7. Delayed intervention results in predictable emotional consequences.
8. To be effective intervention must be informed X 3.
9. Value, educate, and engage the parent.
10. The best way to be trusted is to trust in return.
11. The empowered child is a successful child.

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Terms to investigate further:

1. Whole Child Approach
2. Growth Mindset
3. Risk Resilience Framework
4. Adverse Childhood Experiences (ACE)
5. **Passion:**
 1. Initiative (the motivation to start a task)
 2. Persistence (the fortitude to complete the task)
 3. Resilience (the willingness to try again in the face of failure)

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THANK YOU

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