# Respecting Each Child's Learning Differences



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# June Shelton School & Evaluation Center

- Founded April 2, 1976
- Students with learning differences preschool through grade twelve
- Comprehensive curriculum with strong academic orientation
- Supportive environment, stressing multisensory learning techniques
- Accredited by Independent Schools Association of the Southwest (ISAS)
- Member of Southern Association of Independent Schools (SAIS)

# The Shelton Way



# What is a language learning difference?

# Definition of Language Learning Differences

A language-learning different child shall be defined as a child with:

- average or above-average intelligence
- adequate vision and hearing
- without primary emotional disturbance
- who has failed or is at high risk to fail when exposed to school experiences using conventional educational techniques.

# Definition of Language Learning Differences

Language-learning differences are the result of auditory and visual processing dysfunction and include:

- the specific language disorder, dyslexia,
- and the related disorders of ADHD,
- specific math disability,
- specific written expression disability,
- specific oral language disorder, and
- developmental motor disorder.

# **Dyslexia** Definition Adopted by National Institutes of Health

- One of several distinct learning disabilities;
- Specific language-based disorder of constitutional origin characterized by single word decoding
- Reflects insufficient phonological processing abilities
- Difficulties in single word decoding unexpected in relation to age & other cognitive & academic abilities.

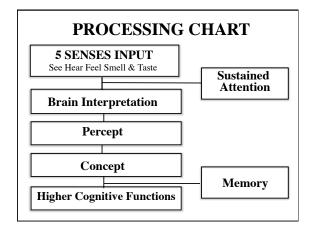
## Dyslexia - NIH Definition Cont.

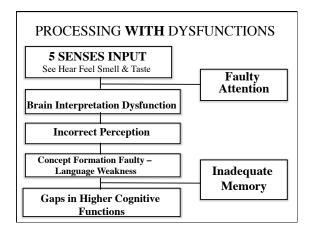
- Not the result of generalized developmental disability or sensory impairment
- Manifested by variable difficulty with different forms of language, including in addition to problems reading, conspicuous problem with acquiring proficiency in writing and spelling.

### **Related Disorders**

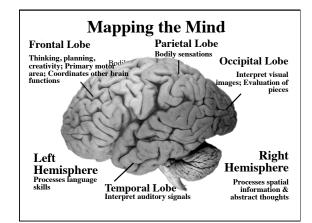
### Refers to learning differences in

- Reading Comprehension
- Attention
- Math
- Coordination
- Social Skills
- Oral Language Disorders



Why do we need to understand the brain and how it processes?



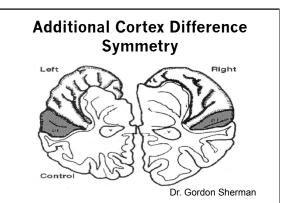
### Dr. Gordon Sherman

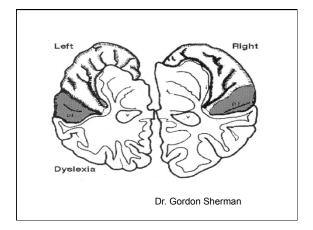
"While no two brains are alike, the brains of people with dyslexia are distinctively different compared to those without dyslexia."

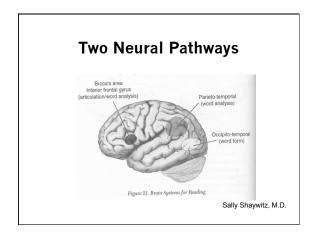
# **Neural Migration**

- Occurs before the 6<sup>th</sup> month of gestation
- A genetic code sends the signal to migrate
- In non-impaired learning brains the neurons do not reach the first layer of cerebral cortex-the language center of the brain

Dr. Gordon Sherman

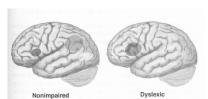






# A Neural Signature for Dyslexia

 Under activation of Neural Systems in the Back of the Brain



Sally Shaywitz, M.D.

# Attention Deficit / Hyperactivity Disorder (AD/HD)

 ADHD refers to a family of chronic neurobiological disorders that interfere with people's capacity to attend to tasks, regulate activity, and inhibit behavior in ways appropriate to their age and circumstances.

## Attention Deficit Hyperactivity Disorder (ADHD) DSM 314.01

### Essential features

- Developmentally inappropriate degrees of
  - inattention,
  - impulsiveness,
  - hyperactivity.

# Neurotransmitters . . . . Play a vital role in key bodily functions. Acetylcholine - widespread in the brain - involved in muscle action, learning & memory **Dopamine** - plays major role in regulation of movements & emotions Norepinephrine - involved in reward, mood regulation, arousal, activation fight/flight behavior Serotonin - regulates body temperature, pain perception, onset of sleep Endorphins (opioids) - minimize pain, produce feelings of pleasure **ADHD Individuals Benefit From:** • Appropriate amount of sleep • Eating a well balanced diet • Exercise • Prayer or Meditation • Medication (if needed) Dr. Edward Hallowell Driven to Distraction Assessment Parent Questions • Teacher Questions Mental Ability Perceptual Ability • Pre-academic / academic skills Behavioral Checklist

# Patterns of Dyslexia & Related Disorders

## **Patterns of Learning Disorders**

- Pattern 1 Reading Disorder (Dyslexia)
- Pattern 2 Related Disorder: Reading Comprehension Disorder
- Pattern 3 Related Disorder: Attention Deficit / Hyperactivity Disorder

### **Patterns of Learning Disorders**

- Pattern 4 Related Disorder: Math Disorder (Dyscalculia)
- Pattern 5 Related Disorder: Motor Incoordination
- Pattern 6 Related Disorder: Oral Language Disorder (Dysphasia)

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# **Patterns of Learning Disorders** • Pattern 7 - Related Disorder: Social Interaction • Pattern 8 - Related Disorder: Mood/ Anxiety • Pattern 9 - At Risk for Learning Disorders • Weakness in Coordination • Weakness in Language • Weakness in Attention • Weakness in Perception How do we treat learning differences? **Treatment** Remediation + Montessori • Organization/Study Skills • MSL Reading Approaches - Language Therapy • Multisensory Teaching • Cooperative Learning • More Individualization

### **Treatment**

### Accommodations:

- Untimed Tests / Extended time on written assignments
- Assistive Technology computers, books on tape, tape recorders

### **Treatment**

### Non-medication

- Direct teaching of attention skills
- Cognitive Strategies
- Exercise and Diet

### Medication

- Stimulant Medications Ritalin, Dexadrine, Adderall, Concerta
- New Class of Medication Strattera, a selective norepinephine reuptake inhibitor
- Mood Medications Paxil, Prozac, Wellbutrin, Zoloft

### **Positive Effects**

- Improved sustained attention
- Improved impulsivity
- Improved learning due to increased memory
- Better organization, less scatter
- Less risk of illegal drug use
- Less side effects of anxiety, depression, suicide


# What can we observe in preschool children that would alert us to At Risk characteristics?

If you would identify children who are high risk for academic learning tasks, with the goal of providing early intervention, evaluate:

- Coordination
- Language
- Attention
- Perception

## Coordination

- Gross
- Fine
- Life Skills



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# Oral Language

- Receptive (understanding)
- Expressive (producing)
  - Speech (articulation)
  - Morphology (roots / affixes)
  - Syntax (order / grammar)
  - Semantics (*meaning*)
  - Voice (quality)
  - Fluency (smooth production)

# Written Language



- Pre-reading
- Reading
- Pre-writing
- Writing
- Composition

### **Attention**

- Motor Skills
- Practical Life
- Sensorial
- Silence Game



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1	3

# **Perceptual**



- Sensorial
- Social Skills
- Pre-Academic

SAMUEL T. ORTON, M.D.



MARGARET BYRD RAWSON



ORTON GILLINGHAM APPROACH

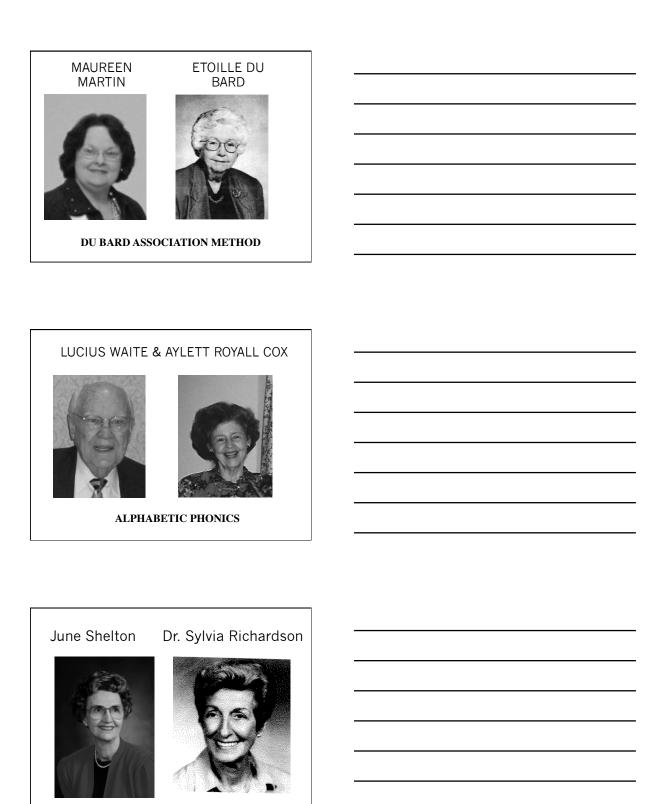
DR. CHARLES L. SHEDD



JOYCE S. PICKERING



APSL/SEE



# Montessori for the LD Child

Montessori wrote:

"The difference in reaction between deficient and normal children in the presentation of didactic material made of graded stimuli, is plainly seen from the fact that the same didactic material used with deficients makes education possible, while with normal children it provokes autoeducation."

Maria Montessori The Montessori Method

What does the Montessori curriculum give us that helps the At Risk student?

# Four Planes of Development Age 3 9 15 21 The property of the

"Montessori education is geared to peaks and valleys of human formation." Dr. Montessori suggested we "divide education into planes and each of these should correspond to the phase the developing individual goes through".

# Four Planes of Development Age 3 9 15 21 15 16 17 18 Infancy Childhood Adolescence Maturity The development of the "at risk" child is uneven. Some areas are developing typically; others are not. The sensitive periods

are different. Since the development in the first 6 years is different, all other periods of development are affected.

# Montessori Applied to Children at Risk

### A method which provides for:

• Individualization of instruction through the child's interaction with the didactic materials proceeding at his own rate for mastery

# Individualization



# Montessori Applied to Children at Risk

- √Specific procedures / techniques for training attention
- ✓A classroom structure, clear in limits and privileges, which assists the child with faulty inhibition control to develop those skills

# **Attention**



## **Classroom Structure**



# Montessori Applied to Children at Risk

✓ An emphasis on work organization which gives a child a model for learning how to set up and go about work tasks, the result of which can be a lifelong habit of investigation

# **Work Organization**



# Montessori Applied to Children at Risk

✓ Manipulative materials which provide the child with multisensory perceptions which help concretize abstract concepts

# **Manipulative Materials**



# Montessori Applied to Children at Risk

√Specific techniques for increasing gross motor skill development, eyehand coordination and fine motor skill facility

## **Fine Motor Skill**



# Montessori Applied to Children at Risk

✓A concentration on the specific labels for people, objects, and ideas and their attributes and functions that foster **oral language development** 

# Oral Language Development Body



# Montessori Applied to Children at Risk

✓ Presentations of academics in small sequential steps with scientifically researched materials to further skill development in language, math, geography, history, physical and biological sciences, art and music

# Academics in Small Sequential Steps



# Montessori Applied to Children at Risk

✓ Enhancement of **Social Skills** and Interpersonal Relationships

# **Choices**



# Montessori Applied to Children at Risk

✓ An environment of encouragement to try, a de-emphasis of failure, which encourages the child's desire for independence, an emphasis on respecting the teacher and classmates that fosters consideration for others

# **Environment of Encouragement**



What else does the Montessorian need to know to help the At Risk child?

# Facilitating Learning For The At Risk Child

- Tasks reduced to smaller segments
- Segments based on perceptual assessment / observation of perceptual motor development
  - Show/feel similarities, & differences (sensorial)
  - Teach transitions (abacus)
  - Teach patterns (hundreds board)

### **Teach Transitions**



# **Teach Patterns**



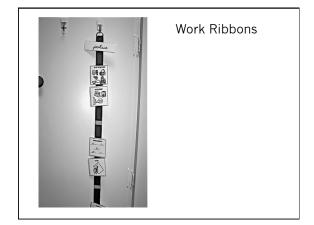
# Sequential English Education (SEE) SEE is a Multisensory Structured Language Education program. SEE combined with Montessori language instruction teaches reading, spelling, handwriting, written expression and includes literacy exercises. The Shelton MSL Training Course in SEE is accredited by SEE The lesson includes these activities: • Introduction of each sound in a structural linguistic multisensory approach-a,t,p,h,c,n,l,b,f,s,g,m,j,r,v,d, i,k,w,wh,z,th,u,sh,e,y,ch,q,o,x • Decoding with moveable alphabet by word family-patterns limited, one vowel at a time • Moveable Alphabet reduced in difficulty for word building SEE • Patterns taught from simple to complex-CVC words with consonants, consonant digraphs, consonant blends, long vowels with the final e pattern, other long vowel combinations, vowels with I/r, multi syllable words, morphology, syntax, semantics

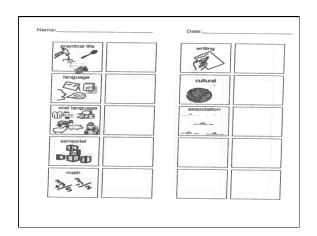
The Shelton MSL Training Course in SEE is accredited

by IMSLEC and IDA

# See Lesson Facilitating Learning For The At Risk Child • Oral language emphasis • Use short repeated phrases • Use rhythm • Use multisensory reinforcement for memorization • Organization must be taught • Use of space-control charts/placement guides Directionality - left to right carefully stressed/tactile & kinesthetic reinforcement • Sequence - first, second, third $\bullet$ Attention - equal responsibility of student & teacher The At Risk Child Requires: • Teacher is present in their learning environment for reater time periods

The At Risk Child Requires:  • Direct assistance on attention, focus, and concentration	
The At Risk Child Requires:  • Structure for behavior	
The At Risk Child Requires:  • Guidance in selecting and performing tasks	





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Sensorial					
Math					
Language					
Cultural					
Computer					

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Facts Sheet						
Yellow/Green Book						
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History Days/Month*						Etymology*
Geography Europe Country Research						
Computer Class Social Skills Library						
PT/ OT /Speech						

# The At Risk Child Requires:

 Perceptual discrimination from three dimensions to paper and pencil



# The At Risk Child Requires:

Specific and direct oral language development



# The At Risk Child Requires:

• Direct teaching of language and/ or math symbols

# The At Risk Child Requires:

 Pre-writing and writing practice with a multisensorial technique



# **Pre-Writing and Writing**



# The At Risk Child Requires:

 Language presentations modified with the techniques or programs for children with specific reading disabilities

### Facilitating Learning For The At Risk Child Written Language Development



# **SUMMARY & CONCLUSIONS**

The At Risk Child Requires:

- Direct teaching of language and/or math symbols
- Pre-writing & writing practice with a multisensorial technique
- Language presentations modified with the techniques or programs for children with specific reading disabilities

# Results of Lack of Early Intervention

- Untreated disorders of articulation become ingrained habits
- A lack of vocabulary becomes more severe communication disorders

# Results of Lack of Early Intervention

- Visual/auditory processing disorders result in mild to severe written language disorders (reading, writing, spelling)
- Non Verbal/verbal communication deficits often causes difficulties with social skills

• If a parent or teacher waits for the child with a language disorder to spontaneously develop the skills for which he does not have the discrimination & integration abilities, it means the child struggles with confusion & frustration.

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# **Education Must Be Prescriptive**

Many approaches/programs could work with most children to some degree, but it is more effective if we match the program to the child and his individual profile of strengths/weaknesses in the assimilation of language and learning.



J. McVicker Hunt has written that Montessori has come the closest to solving the problem of "match" in education. (Hunt 1968). He explains the "match" concept as placing the level of presentation to the child at the child's developmental and skill level for optimal learning and success. This problem of "match" is critical to teaching the at risk child.

# **Self-Concept Formation**

- The child with average learning skills has more positive than negative experiences both before entering school and after entering school
  - This builds resistance to anxiety
  - Establishes a strong sense of self worth

# **Self-Concept Formation**

- The child with learning or adjustment difficulties has more negative than positive experiences, especially after entering school
  - This exacerbates feelings of anxiety
  - Self-concept is negatively affected
  - Negative behaviors develop

# A vicious circle of negative behavior is set into motion

- Adults must intervene to stop the cycle
- The possibility of more positive experiences must be increased
  - Improve academic skills
  - Direct teach social skills/coping strategies
  - Provide success experiences in and out of the academic setting

# Presentation Handouts @ www.shelton.org

- Classroom for Children With Learning Differences
- · Contrast of Development
- MACAR Part 1 & 2
- MATCH Parent check list
- · MATCH Teacher check list
- · Models of Support
- · Montessori Parenting
- · Parent Presentation/All Children Learn Differently

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For further information about trainings and materials, please visit the Shelton website www.shelton.org/training







### Montessori Applied To Children At Risk For Learning Differences **MACAR**

Shelton School in Dallas, Texas JULY 6-15, 2015 (no class on Sunday)

MACAR is designed to assist the Montessori teacher to serve students with learning differences in the regular classroom.

Materials provided electronically and include:

- ◆ Administrative Manual◆ Practical Life
- ♦ Sensorial
- ♦ Math
- ♦ Oral Language/Written Language ♦ Choices
- ♦ Perceptual Motor Skills

www.shelton.org/macar