MACAR Workshop Track

Respecting Each Child's Learning Differences

PRE-CONFERENCE

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AMS Annual Conference
Philadelphia, 2015

Course Presenters

- **Joyce S. Pickering, HumD, SLP/CCC, CALT/QI**
  Executive Director Emerita, AMS Pre-Primary
- **Pauline Novak, M.Ed., CALT, LDT, MAT**
  Co-Director of Shelton Montessori Teacher Education Center

MACAR Track at AMS Annual Conference, Philadelphia, 2015

Preconference: Respecting Each Child's Learning Differences

1. Planes of Development of Children with Learning Differences
2. Oral Language & Motor Development in the Child with Learning Differences
3. Practical Life & Sensorial for the Child with Learning Differences
4. Sensorial-to-Math Pathway for the Child with Learning Differences
5. Learning to Read, Write & Spell for the Child with Learning Differences
6. Assuring Social Competence for the Child with Learning Differences
7. Executive Functioning in the Child with Learning Differences

MACAR Track at AMS Annual Conference Philadelphia, 2015

Attendees of all 8 MACAR Track sessions

- Receive credit for the first four days of MACAR Level I at Shelton
- Attend final five days of MACAR Level I at Shelton in Dallas, Texas, July 10 – 15, 2015
  - Two days of instruction: Math and SEE
  - Three days of practicum
- Reduced tuition $1,300 (includes manuals)
- Special Registration link will be emailed

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

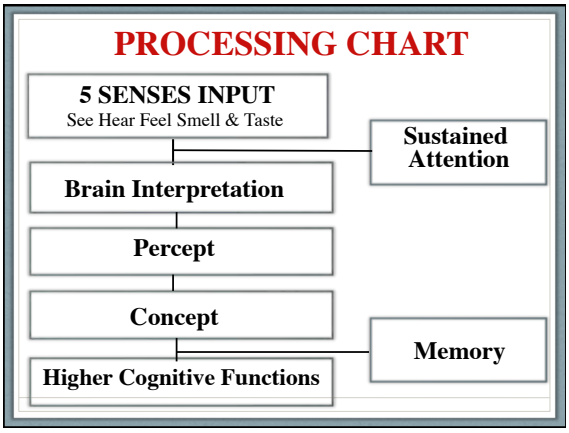
- One of several distinct learning disabilities;
- Specific language-based disorder of constitutional origin characterized by single word decoding
- Reflects insufficient phonological processing abilities
- Difficulties in single word decoding - unexpected in relation to age & other cognitive & academic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

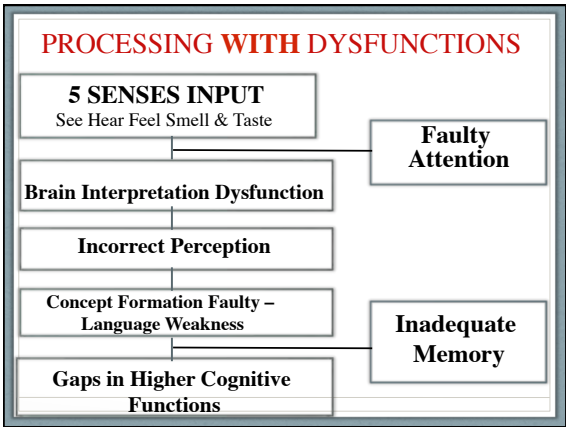
Dyslexia - NIH Definition Cont.

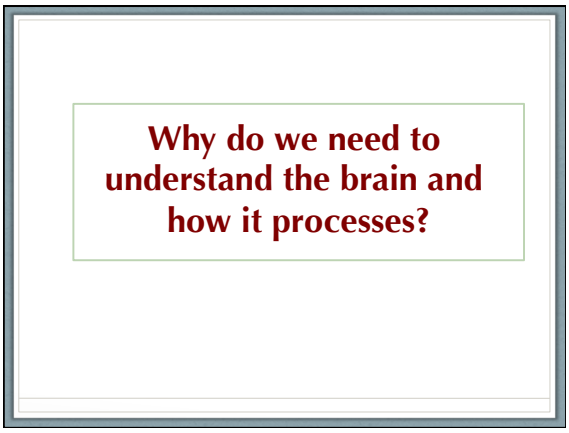
- Not the result of generalized developmental disability or sensory impairment
- Manifested by variable difficulty with different forms of language, including in addition to problems reading, conspicuous problem with acquiring proficiency in writing and spelling.

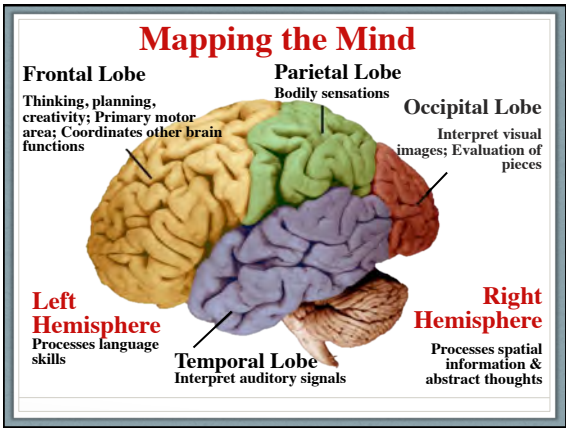
Related Disorders

refers to learning differences in reading comprehension, attention, math, coordination, social skills and oral language disorders.


PROCESSING CHART
5 SENSES INPUT
See Hear Feel Smell & Taste
Sustained Attention
Brain Interpretation
Percept
Concept
Memory
Higher Cognitive Functions

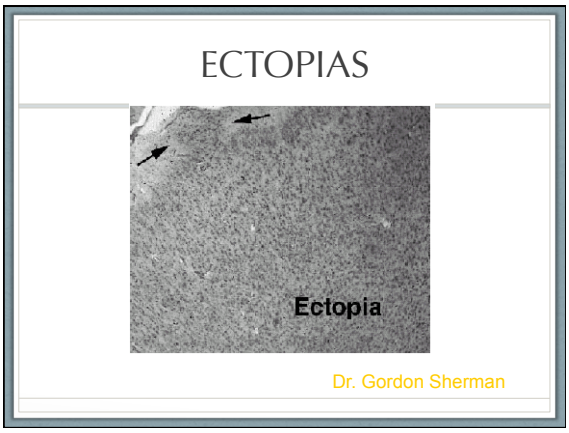

PROCESSING WITH DYSFUNCTIONS
5 SENSES INPUT
See Hear Feel Smell & Taste
Faulty Attention
Brain Interpretation Dysfunction
Incorrect Perception
Concept Formation Faulty – Language Weakness
Inadequate Memory
Gaps in Higher Cognitive Functions


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



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

Dr. Gordon Sherman



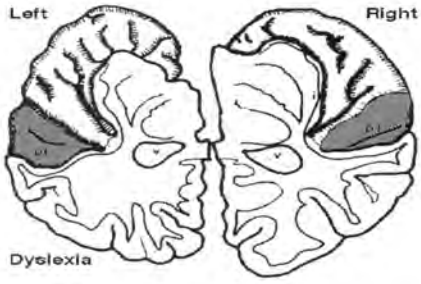
Neural Migration

- Occurs before the 6th 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

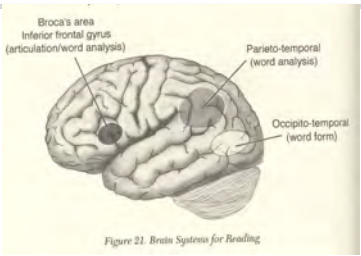
Additional Cortex Difference Symmetry

Dr. Gordon Sherman



Dr. Gordon Sherman

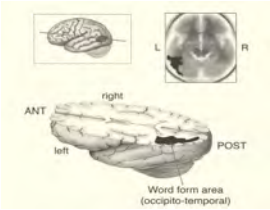
Two Neural Pathways



Sally Shaywitz, M.D.

Word Form Area Occipito-Temporal

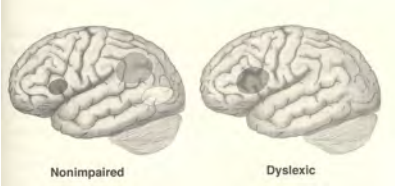
- The more skilled the reader, the more they activate this region



Sally Shaywitz, M.D.

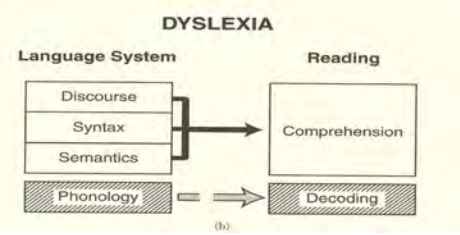
A Neural Signature for Dyslexia

- Under activation of Neural Systems in the Back of the Brain



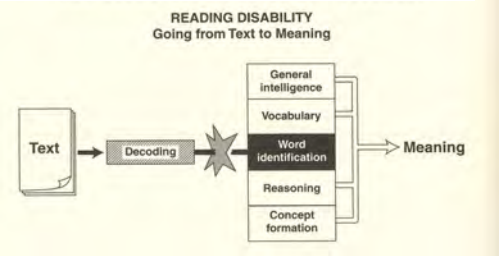
Sally Shaywitz, M.D.

In dyslexic children there is a glitch within the language system.



Sally Shaywitz, M.D.

A phonological weakness blocks decoding, which in turn interferes with word identification.



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

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)

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

Who is the preschool child who is at risk?

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

- *Coordination*
- *Language*
- *Attention, and*
- *Perception*

What can we observe in preschool children that would alert us to at-risk characteristics?

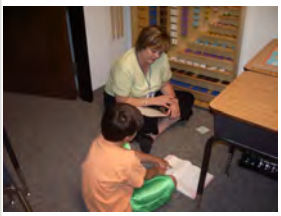
COORDINATION

- Gross
- Fine
- Life Skills

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

PERCEPTUAL

- Sensorial
- Social Skills
- Pre-Academic

What does the Montessori curriculum give us that helps the at-risk / learning different student?

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, eye-hand coordination and fine motor skill facility

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

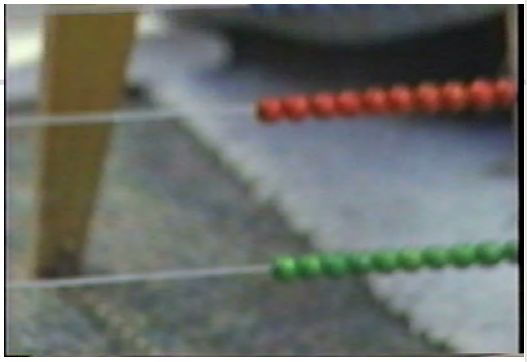
- ✓An **environment of encouragement** to try, a de-emphasis of failure, which encourages the child's desire for independence, an emphasis on respecting the teacher and classmates that fosters consideration for others

Environment of Encouragement

What else does the Montessorian need to know to help the at-risk/learning different student?

FACILITATING LEARNING FOR LEARNING DIFFERENT STUDENT

- 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)



FACILITATING LEARNING FOR LEARNING DIFFERENT STUDENT

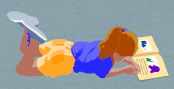
- Oral language emphasis
  - Use short repeated phrases
  - Use rhythm
  - Use multisensory reinforcement for memorization
- Organization must be taught
  - Use of space-control charts/placement guides
  - Directionality - left to right carefully stressed/tactile & kinesthetic reinforcement
  - Sequence - first, second, third
- Attention - equal responsibility of student & teacher

The At Risk Child Requires:

- Teacher is present in their learning environment for greater time periods

The At Risk Child Requires:

- Direct assistance on attention, focus, and concentration



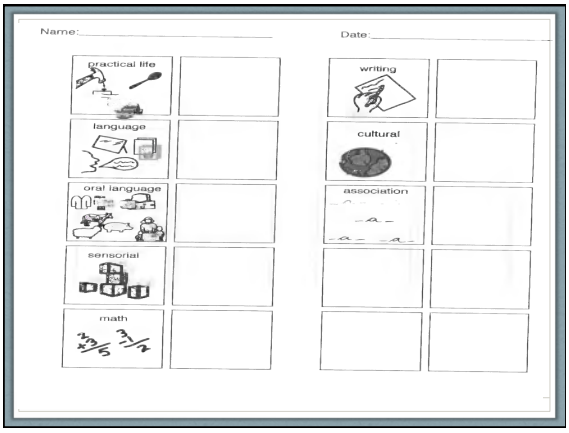
The At Risk Child Requires:

- Structure for behavior

The At Risk Child Requires:

- Guidance in selecting and performing tasks

Work Ribbons



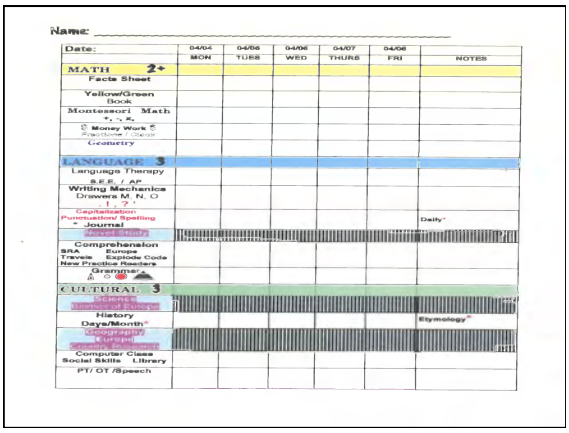
Name:_____ Date:_____

practical life		writing	
language		cultural	
oral language		association	
sensorial			
math			

Weekly Contract

Name_____ Date _____

Works	Monday	Tuesday	Wednesday	Thursday	Friday
Practical Life					
Sensorial					
Math					
Language					
Cultural					
Computer					



Name: _____

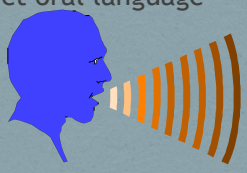
Date:	04/04 MON	04/05 TUES	04/06 WED	04/07 THURS	04/08 FRI	NOTES
MATH 2+						
Facts Sheet						
Yellow/Green Book						
Montessori Math +, -, x,						
Money Work Practice / Check						
Geometry						
LANGUAGE 3						
Language Therapy						
S.E.E. / AP						
Writing Mechanics Drawers M, N, O						
Capitalization Punctuation/ Spelling						Daily*
* Journal Jewel Study						
Comprehension SRA Europe Travels Explode Code New Practice Readers						
Grammar						
CULTURAL 3						
Science Subject of Study						
History Days/Month*						Etymology*
Geography Europe Monthly Theme						
Computer Class Social Skills Library						
PT/ OT /Speech						

The At Risk Child Requires:

- Perceptual discrimination from three dimensions to paper and pencil

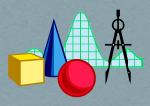
The At Risk Child Requires:

- 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

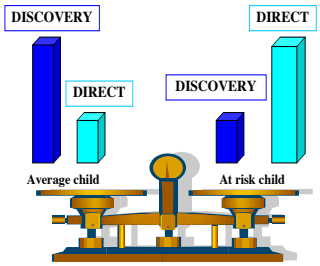
The At Risk Child Requires:

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

SUMMARY & CONCLUSIONS
The At Risk Child Requires:

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

A Balance in Education Discovery Learning & Direct Instruction



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.**

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.

MATCH

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

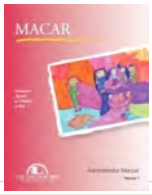
A vicious circle of negative behavior is set into motion

- 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 on Shelton.org That Can Be Downloaded

- 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

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

AMS MACAR Track

Join the MACAR course this summer in Dallas, Texas for the second half of your training.
If you complete all 8 sessions of the AMS MACAR track (Thursday-Sunday) **, you will be able to register for the second half of the course for half the cost.**

JULY 10-15, 2015
(no class on Sunday)