Helping the At Risk or Learning Different Child ★ Part 1/Part 2

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Course Presenters

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AMS Pre-Primary
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)

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.
Processing Chart

5 SENSES INPUT
Receptors of See, Hear, Feel, Smell, Taste

Brain Interpretation

Percept

Concept

Higher Cognitive Functions

SUSTAINED ATTENTION

MEMORY

Processing with Dysfunctions

5 SENSES INPUT
Receptors of See, Hear, Feel, Smell, Taste

Brain Interpretation Dysfunction

Incorrect Perception

Concept Formation Faulty - Language Weaknesses

Gaps in Higher Cognitive Functions

FAULTY ATTENTION

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

Mapping the Mind

**Frontal Lobes**
- Thinking, planning, creativity; Primary motor area; Coordinates other brain functions

**Left Hemisphere**
- Processes language skills

**Right Hemisphere**
- Processes spatial information & abstract thoughts

**Occipital Lobes**
- Interpret visual images; Evaluation of pieces

**Temporal Lobes**
- Interpret auditory signals

**Parietal Lobes**
- Bodily sensations
“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
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.

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

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**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  2008

• Pattern 1 - Reading Disorder (Dyslexia)

• Pattern 2 - Related Disorder: Reading Comprehension Disorder

• Pattern 3 - Related Disorder: Attention Deficit / Hyperactivity Disorder
Patterns of Learning Disorders  2008

• 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  2008

• Pattern 7 - Related Disorder:  Social Interaction

• Pattern 8 - At Risk for Learning Disorders

• Pattern 9 - At Risk for Oral Language Disorders
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

Non-medication

✓ Direct teaching of attention skills

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
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

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
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

Montessori Applied to Children at Risk

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

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
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

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.
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
For further information about the MACAR Course and materials, please visit the Shelton website www.shelton.org

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