

Contrast of Development of Average &
At Risk Child Related to Montessori
Methods Which Enhance Learning
for At Risk Child



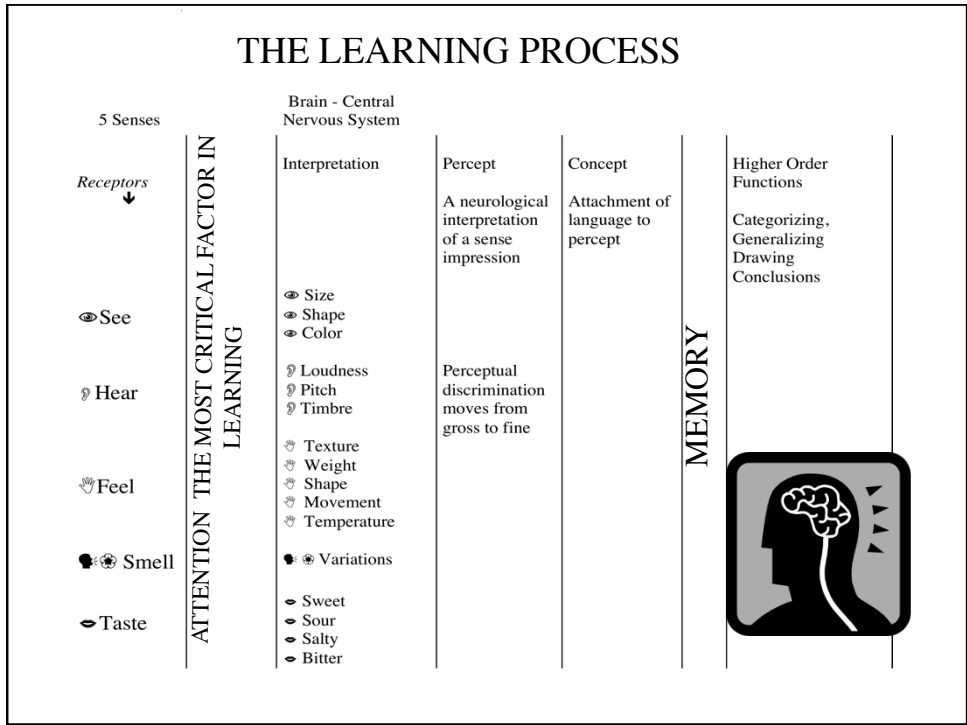
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If you would identify children who are high
risk for academic learning tasks, with the goal
of providing early intervention, evaluate:

- Coordination
- Language
- Attention, and
- Perception

Sylvia O. Richardson, M.D.
February 1987

THE LEARNING PROCESS



ATTENTION

AVERAGE CHILD



- Inhibition control begins to develop at 2 1/2 - 3 years.
- Focuses on activity presentation & concentrates
- Works with activities for periods of 10 minutes or longer.

ATTENTION

AT RISK CHILD



- Deficits may be present.
- Behavior often noted as hyperactive, hypoactive, or distractible.
- Inhibition control does not develop in a normal manner, therefore focus & concentration are faulty.

ATTENTION

MONTESSORI METHODS that Enhance Learning for At Risk Child



- Prepared Environment: organization of materials & room.
- Classroom Atmosphere: ordered calm.
- Order in Presentation: assists focus, child waits for closure.
- Silence game: teaches inner calm, concentration, focus.
- Classroom structure: clear limits/freedoms; teacher accepts role to help children develop inhibition techniques, central focus.

COORDINATION - GROSS MOTOR

AVERAGE CHILD



- Walks, hops, runs, jumps, skips, throws and catches ball by approximately 5 years of age.

COORDINATION - GROSS MOTOR

AT RISK CHILD



- Sometimes observed as clumsy in body movements in classroom.
- Often below normal limits when observed on specific items (alternating feet in walking up steps, skipping, learning to jump rope).

COORDINATION - GROSS MOTOR

MONTESSORI
METHOD that
Enhances Learning for
At Risk Child



- Manipulation of Materials: carrying/using multisensory materials of various sizes & weights.
- “On the Line” procedures: moving to rhythms, marching, hopping, skipping to music. Indirect/direct instruction in basic gross motor movements through a perceptual motor skills program.

COORDINATION - FINE MOTOR

AVERAGE CHILD



- Cuts on a line, cuts out shapes, holds pencil, maintains line, pressure, makes corners by 5 years of age.

COORDINATION - FINE MOTOR

AT RISK CHILD



- Difficulty maintaining pattern of cutting motion results in jerky motion, jagged cutting.
- Holds pencil in awkward fashion, difficulty maintaining a line, pressure, round corners.

COORDINATION - FINE MOTOR

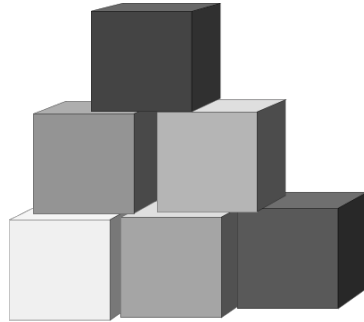
MONTESSORI METHOD that Enhances Learning for At Risk Child



- Eye-Hand Coordination: manipulation of materials in all areas of curriculum.
- Hand Coordination: preparation of hand for writing use of thumb, index, & middle fingers working together for grasp & release.
- Particular training in the pre-writing activity of metal insets.

ORGANIZATION

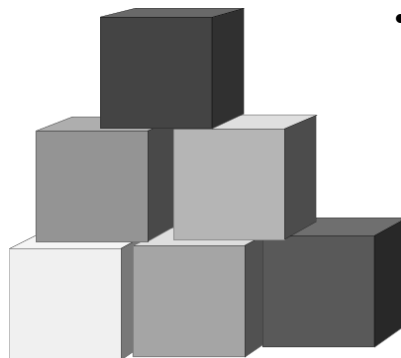
AVERAGE CHILD



- Order and sequence appear to be learned by imitation.

ORGANIZATION

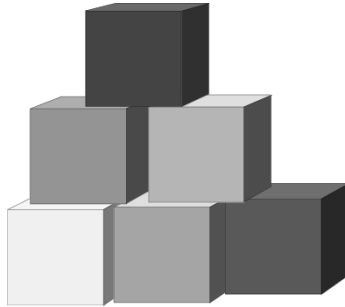
AT RISK CHILD



- Difficulty noted in ordering work tasks and working in a sequential way.

ORGANIZATION

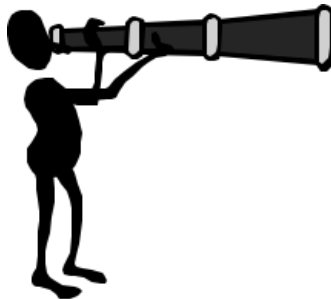
MONTESSORI
METHOD that
Enhances Learning
for At Risk Child



- All activities in all curriculum areas have a specific order & sequence.
- The teacher demonstrates, the child imitates.
- The teacher helps the child refine his work habits from haphazard trial & error attempts to procedures which help the child gain the skills of analysis necessary for effective organization of work.

PERCEPTION

AVERAGE CHILD



- Matches, discriminates sensory information.
- Perceives patterns in shape, color, numbers.

PERCEPTION

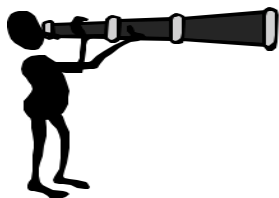
AT RISK CHILD



- Matching is usually within normal limits.
- Difficulty with discrimination of sensory information noted.
- Discrimination/memory difficulty in math or letter symbols frequently seen.
- Association of symbol to name often a problem.

PERCEPTION

MONTESSORI METHODS that Enhance Learning for At Risk Child



- Through the Sensorial curriculum, teacher can assess the child's ability to perceive, discriminate, and gradate visual, auditory, tactile, olfactory & gustatory information.
- These sensorial discriminations & the associated language concepts are significant in the progression to higher cognitive functions, such as categorizing, generalizing, & the beginning of reasoning.
- All areas of the curriculum utilize VAKT to assist the child in the perceptual discrimination & memory required in language & math.

WORK CHOICES

AVERAGE CHILD



- Chooses variety of work, usually proceeding to more difficult concepts.

WORK CHOICES

AT RISK CHILD



- Chooses simple work that has been mastered.
- Avoids works that is perceived as “harder.”
- Avoids letters and/or numbers.
- Avoids written work.
- Needs teacher guidance for choices.

WORK CHOICES

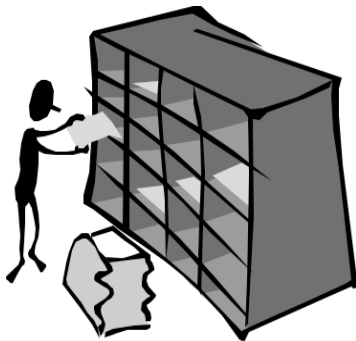
MONTESSORI
METHODS that
Enhance Learning for
the At Risk Child



- Procedures allow teacher to guide child in learning to make his choice of work.
- Teacher may allow choice, limit choices, or make choices for child until he can do this task independently.

HABITS

AVERAGE CHILD



- Choose work, uses procedure with purpose, replaces the work on the shelf.

HABITS

AT RISK CHILD



- Avoids work.
- Often insecure due to lack of successful learning experiences.
- When chooses, often replaces without using or leaves work & wanders the room.

HABITS

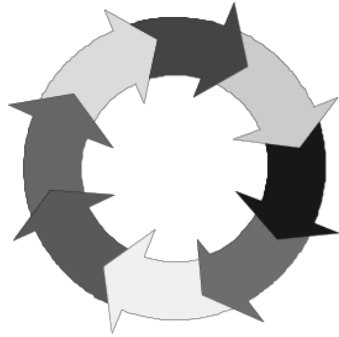
MONTESSORI METHOD that Enhances Learning for At Risk Child



- The structure of the classroom and the procedures for working with the activities fosters organized work habits.

CYCLE

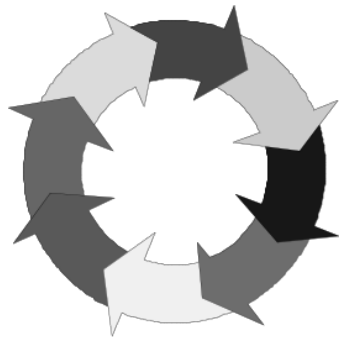
AVERAGE CHILD



- Chooses one activity after another varying the difficulty of choices.

CYCLE

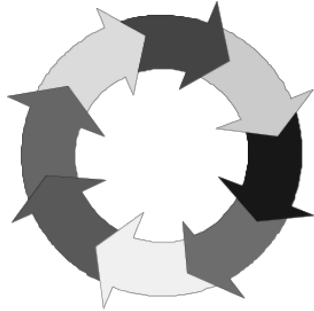
AT RISK CHILD



- Does not establish a true cycle without teacher support.

CYCLE

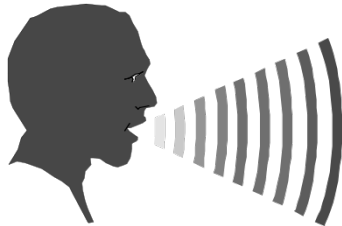
**MONTESSORI
METHOD** that
Enhances Learning
for At Risk Child



- Teacher can enhance the work cycle by teaching the child to make choices, how to set up his work, areas appropriate for work, completion of activities, and return of the activity to its location.

ORAL LANGUAGE

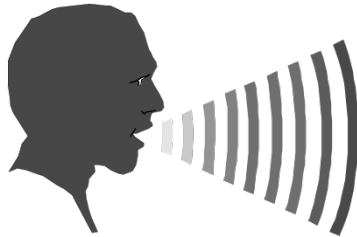
AVERAGE CHILD



- Has a vocabulary of approximately 2,500 to 5,000 words.
- Usage of this vocabulary or basic communication with appropriate sentence structure.

ORAL LANGUAGE

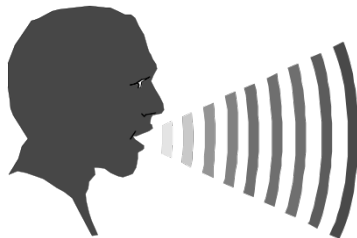
AT RISK CHILD



- Vocabulary deficiencies seen in labeling, sentence formation, and usage in running speech.
- Often seen as a quiet child, child who is confused by simple directions.
- Child who often says, “you know.”
- A portion of at risk population is normal in vocabulary development.
- High incidence of articulation & rhythmical difference.

ORAL LANGUAGE

MONTESSORI METHOD that Enhances Learning for At Risk Child



- All lessons made silently to allow child to process the perceptual information being demonstrated, and then the labels, the language concepts, are associated.
- Specific vocabulary covered.
- Curriculum for the at risk child must be extended from vocabulary development to effective oral communication.

WRITTEN LANGUAGE

AVERAGE CHILD



- If presented, has mastered most of the letters and the basic sounds of the language.
- Usually can blend these sounds and decode.
- Often is beginning to read by 5 years of age.

WRITTEN LANGUAGE

AT RISK CHILD



- Inconsistency in performance seen in learning letter symbols and sounds.
- Variable performance with all written symbols activities.
- Difficulty perceiving the patterns of words.

WRITTEN LANGUAGE

MONTESSORI
METHOD that Enhances
Learning for At Risk
Child



- Prerequisites: Sensorial Curriculum/Pre-Writing Activities/Oral Language Development in progress
- Presentations begin with the multisensory Sandpaper Letters with which the child can receive visual, auditory, kinesthetic, and tactile information to increase the sound/symbol correspondence.

WRITTEN LANGUAGE

MONTESSORI
METHOD that Enhances
Learning for At Risk
Child



- Several activities presented after the Sandpaper Letters give repeated practice through varied materials in sound/symbol association.
- These proceed from concrete to abstract.
- The Moveable Alphabet provides child with 3 dimensional letters which child may manipulate to practice Word Building by using his sound/symbol knowledge.

WRITTEN LANGUAGE

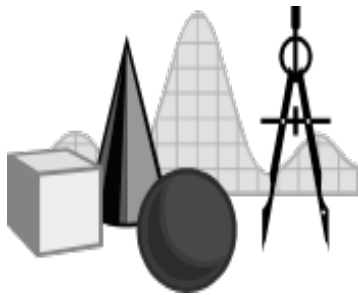
MONTESSORI
METHOD that Enhances
Learning for At Risk
Child



- The activity reinforces the left to right progression of language. Reading, Spelling and Writing proceed at the child's rate through a hierarchy of simple to complex word patterns.
- The child moves from word building to sentence building to reading/writing stories and books, to grammar analysis.

MATH

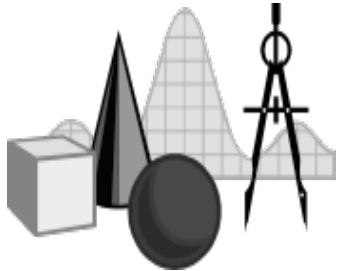
AVERAGE CHILD



- Gains number to quantity concepts, math symbols, math concepts and beginning computation by 5.

MATH

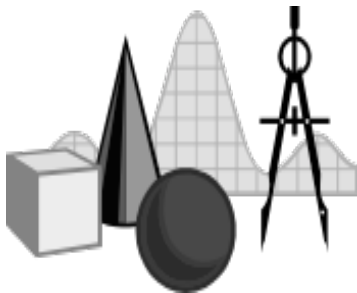
AT RISK CHILD



- Spotty performance on number to quantity concepts, longer work time for mastery, erratic performance on symbol/numeral association
- Math concepts often superior to computation
- Difficulty with immediate recall of facts
- Difficulty with patterns as seen in odd/even, writing to 100, skip counting.
- Difficulty with 1:1 correspondence

MATH

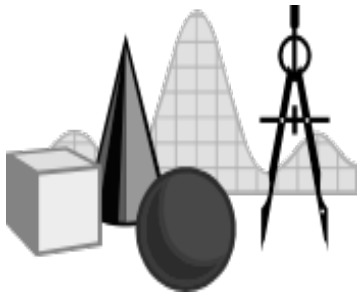
MONTESSORI METHOD that Enhances Learning for At Risk Child



- Pre-requisites: Sensorial Curriculum through Red Rods/ Pre-Writing Activities begun.
- Number to quantity activities presented to establish quantity/ symbol relationship.
- Materials are manipulative & multi-sensory.
- Materials move from concrete to abstract.
- Three Period Lesson used to attach language to quantity.

MATH

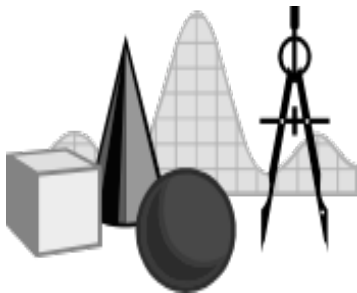
MONTESSORI
METHOD that
Enhances Learning for
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- Number to quantity practiced out of sequence & in sequence.
- Number to quantity activities include Number Rods (1-10), Spindle Box (concept of 0), Tile Game (1-10 odd/even).
- Tens Board & Tens Board allow for language of teen numbers & the tens number to be introduced by number to quantity.

MATH

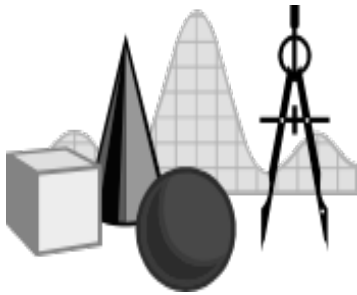
MONTESSORI
METHOD that
Enhances Learning for
At Risk Child



- Introduction of the decimal system (language of number to quantity) provide child repetitions of building various quantities from 1-9,000 with the golden beads & matching the numerals.
- Addition, multiplication, subtraction, & division introduced with golden beads.
- Writing of numerals introduced with Sandpaper numerals.

MATH

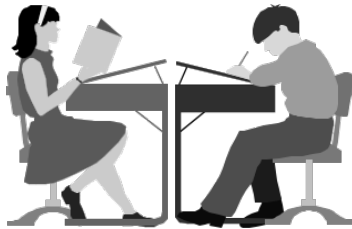
MONTESSORI
METHOD that
Enhances Learning for
At Risk Child



- Skip counting introduced with the manipulative bead chains.
- Functions practiced with additional multisensory materials: addition strip board, subtraction strip board, multiplication strip board, division board.

CO-OPERATIVE BEHAVIORS

AVERAGE CHILD



- Usually has gained inhibition control by 5 which enables him to cooperate with a teacher and peers in a learning environment.
- Given encouragement, enjoys the acceptance of responsibility and independence.
- Follows a model of consideration of others.

CO-OPERATIVE BEHAVIORS

AT RISK CHILD



- Has not always experienced the neurological maturation which allows inhibition control.
- Can be seen as stubborn, willful, immature, silly, or withdrawn.
- Lacking self control he has not developed a cooperative spirit with adults or other children.

CO-OPERATIVE BEHAVIORS

AT RISK CHILD



- Needs direct instruction in inhibition, how to accept responsibility, how to persevere, how to use independence, how to act in a considerate manner.

CO-OPERATIVE BEHAVIORS

MONTESSORI
METHOD that Enhances
Learning for At Risk
Child



- Experienced teacher with specific training in teaching at risk students accepts as part of her responsibility the guidance & instruction of appropriate behaviors & social skills.
- She will teach the child through specific techniques inhibition of impulsive behavior, increased self-control, the acceptance of responsibility, perseverance, independence, & consideration for others.