A circuit approach and station techniques are used to depict perceptual motor games for handicapped and nonhandicapped children. Twenty activities are described in terms of objectives, materials, and procedures, and their focus on visual tracking, visual discrimination and copying of forms, spatial body perception, fine motor coordination, tactile discrimination, and depth perception is charted. (C)
Learning is best achieved in the environment of fun and laughter. Marie Montessori

INNOVATIVE PERCEPTUAL MOTOR ACTIVITIES: PROGRAMING TECHNIQUES THAT WORK

By Howard M. Sorrell*

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*We are indebted to Howard M. Sorrell, physical education teacher, Jackson Elementary School (Arlington, Virginia), who has shared with us some practical and useful ideas he has found successful with children in various settings. Representative of countless activities germinating in his creative mind, those contained in this Practical Pointer, can be used for a variety of purposes in the classroom or gymnasium, in the recreation center, or at home. Thanks, appreciation, and gratitude go to Howard M. Sorrell for his valuable contributions to individuals interested in serving children and facilitating their growth and development. Additional and special thanks are extended to Jane Silverman Bradtlw, AAHPER/IRUC Information and Materials Assistant, whose creative talents and creativeness were applied as she went above and beyond the call of duty in preparing illustrations for this Practical Pointer.
What is education? So often learning experiences have been approached in terms of teacher/leader interests, backgrounds, and experiences. Here is an approach that is child-centered with the focus on learning not teaching. The nature of learning is concentrated on with the understanding that the more experiences and opportunities given a child, greater the chances for use and application.

Think of all possibilities for these activities—small motor and manipulative activities requiring dexterity; tracking and visual discrimination and depth perception; tactile discrimination; concepts of laterality, directionality, space, shape, color, and numbers; opportunities to follow directions, work together, read, solve problems, and have fun while being successful. The details and approach can be modified according to participating youngsters regardless of ages, functional abilities, or impairments. Activities are appropriate for school, recreation center, home, or wherever children are found.
High interest, self-motivating, programed materials are designed to spark children to learn when traditional ways have not been successful. Such tasks are designed to permit each child to execute them successfully by him/herself or with minimum help.

Many of these tasks have been adapted from commercially marketed puzzles and perceptual-motor games. The author developed some and others originated from observing children with learning problems. The tasks are not particularly unusual but have worked for the author and children with whom he works. Any interested leader can adapt some of these suggestions or design new ones to meet the needs of an individual or group. Keys to effectiveness for this approach are:

- Specific, sequential steps to accomplish the task.
- Immediate high interest in tasks by students.
- Positive rewarding feelings upon completion of each task.

Obviously, time and effort are necessary for this as in any worthwhile undertaking. Students of all ages, however, not only like the approach but learn from the experiences.

The Program in Action

Regardless of specific methods to implement this program, a circuit approach or station techniques are used. Among endless ways of putting this program into action are:

- Make and place instruction cards for each activity in a specific area. Students who can read and follow instructions. Others have someone else read instructions to them. If possible, instructions should be in picture or graphic form so everyone can follow them easily. Consider use of audio-cassettes as another possible way to provide instructions.

- Devise stations or areas so students move in a prescribed order, stay at each for a specific time, then rotate at a signal. Use contact paper, tempera paint, or other means to show movement patterns among stations. Use music for background during the action phase of activity; stop the music as a signal to move to the next station. Aides, peer tutors, and volunteers can be used to work with students who need extra help or at especially difficult stations.

- Devise a check-off list so each child can maintain a record of what has been accomplished, how long it has taken, and other information to show achievement.

- Include sufficient stations and activities so each youngster has a chance to become more proficient and meet new challenges through active participation. Obtain ideas and suggestions from children on new ways tasks can be used at each station.

- Incorporate appropriate commercial activities, e.g., Perfection, Beat-the-Clock, Tug-Boat, puzzles, dominoes, Twister, and Toss-Across, as activity stations. Visit toy stores for additional games and ideas for this approach.
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COUNT THE BEANS

Objectives: Develop finger dexterity, tactile sensitivity, and visual tracking.

Materials: Pint sized jar filled with dried lima beans; tin can in which beans can be placed; counting board or space.

Procedure: 1. Use the right hand, count fifty beans and place them in the tin can.
             2. Re-spread beans on the counting board.
             3. Count beans again, use the left hand, and place beans in the can again.
             4. Pick up fifty more beans alternately with the right and left hands.
             5. Return beans to the jar for the next classmate to count.

Note: Repeat the activity using different numbers of beans to count.

COUNTRY STORE

Objectives: Manipulate materials and acquaint pupil with the experience of a small store keeper... academic learning in using weights and measures is a secondary objective.

Materials: An old, used store or baby scales; paper bags of various sizes and weight capacities; several boxes/cans/containers of dried peach seeds, acorns, golf balls, bottle caps, glass marbles, discarded checkers, or homemade wooden blocks... cleaned pebbles will do.

Procedure: 1. Weigh ½ pound of peach seeds into a bag.
             2. Weigh 1 pound of acorns into a bag.
             3. Weigh 2 pounds of bottle caps into a bag.
             4. Weigh 2 ½ pounds of wooden blocks into a bag.
             5. Weigh 1 pound, 12 ounces of discarded checkers.
             6. Weigh 3 pounds, 2 ounces of cleaned pebbles into a bag.
             7. Empty materials into correct tin cans or containers.
             8. Smooth out and replace bags for other classmates to use.
HOMEMADE PEG BOARD

Objectives: Place varied colored milk container tops over upright dowels to form different shapes and forms.

Materials: Homemade peg board 14 inches x 14 inches with 144 1/4-inch dowels placed one inch apart; 144 dowels, 1 inch high by 1/4-inch diameter, mounted in 1/4-inch diameter holes recessed 1/2-inch deep; 144 (or more) gallon milk container screw-on metal tops painted in a variety of colors and with a 1/4-inch hole drilled into the center of each; number 10 tin can to hold tops. Soda pop bottle tops can be used, but sharp edges can scratch some floors.

Procedure:
1. Place dowels in the holes so that all holes are filled.
2. Arrange blue tops on the periphery of the board to form a square frame.
3. Use red tops to form an equilateral triangle.
4. Place yellow tops in positions to form a rectangle of any color; (a) make as large a rectangle as possible; (b) use exactly 18 tops of any color to form a rectangle; (c) make two other sized rectangles.
5. Pick out black tops to form a pentagon shape.
6. Use as many green tops as you like to form an octagon.
7. Select any tops with commercial labels and make the outline of a house.
8. Make any shape or design which you choose...i.e., outline of a church, boat, star, monument.

NUT AND BOLTS FOR YOUNG CARPENTERS

Objectives: Use finger manipulation in fixing nuts and bolts into correct holes; recognize correct sizes and spaces.

Materials: Homemade wooden upright with holes for fifteen varying sized nuts and bolts; tin can to hold dismantled parts; red bandanna.

Procedure:
1. Remove all nuts and bolts from the wood block.
2. Place nuts and bolts in the can and shake.
3. Replace nuts and bolts in proper slots.
4. Put on the blindfold and repeat 1, 2, and 3 above.
5. Remove the blindfold and replace all parts for the next classmate.
ONE FINGERTIP TYPING

Objectives: Recognize letters; develop elementary finger dexterity and eye-hand coordination.

Materials: Used, old typewriter; supply of 8½ inch x 11 inch—preferably used—typing or ditto paper.

Procedure:
1. Type the alphabet using lower case (small) letters.
2. Set "shift lock" and type alphabet with capital letters.
3. Type your name and address.
4. Type a short poem or copy one of the following:

   Little Bo Peep has lost her sheep,
   And can't tell where to find them.
   Leave them alone and they'll come home
   Wagging their tails behind them.

   and/or—The quick, little, brown fox jumped over the lazy,
   sleeping dog.

5. Type a short letter to your mother, father, or to a friend.

HOW MANY?

Objectives: Locate from a large collection of keys ones that unlock the four locks.

Materials: Four padlocks (can be more or less); four keys that fit locks; fifteen or twenty dummy keys; tin can.

Procedure:
1. Empty keys onto a work area.
2. Continue experimenting with all keys until all four locks have been successfully unlocked.
CATTLE RUSTLERS

Objectives: Tie-up your classmate, Big Buddy or leader, four times using four different length ropes.

Materials: Four ropes with painted (marked) tips to distinguish between different lengths—red tipped, six feet; black tipped, nine feet; white tipped, twelve feet; and yellow tipped, fifteen feet; box; chair.

Procedure: 1. Use the red tipped rope to tie the Rustler's wrists (i.e., your partner) so that he/she cannot untie him/herself. Now untie him/her.
2. Tie the Rustler's ankles with the black tipped rope. Can he/she untie him/herself? If not, release him/her.
3. Use the white tipped rope to tie the Rustler's ankles and wrists. Can he/she untie him/herself? Untie him/her.
4. Use the yellow tipped rope to tie your partner completely to a chair.
5. Replace ropes in the box for your next classmate.

SHARPEN THREE PENCILS

Objectives: Develop finger dexterity by manipulation and control of pencils and varying types of pencil sharpeners; improve eye-hand coordination.

Materials: Snoopy or similarly battery operated pencil sharpener; two hand operated sharpeners; supply of new or unsharpened wooden pencils; two number 10 tin cans.

Procedure: 1. Sharpen one pencil with the Snoopy sharpener.
2. Sharpen the second and third pencils by hand manipulation.
3. Place sharpened pencils in the number 10 tin can.
**FINE TOUCH**

**Objectives:** Develop fine motor skills and eye-hand coordination.

**Materials:** Five each of fourteen different sized small tacks and nails...in a glass jar container; pair of medical tweezers (for splinter removal); cooking pan; ice cube tray with standard fourteen cube sections.

**Procedure:**
1. Pour tacks and nails into the cooking pan.
2. Pick up each item one at a time with the tweezers and place it into a separate compartment of the ice cube tray—use one compartment for each type item.
3. Replace tacks and nails in the jar for your next classmate.

**Note:** If you wish to establish a time for accomplishing this task, set a kitchen timer...or use the sweep second hand of a wrist watch or wall clock.
Reset the kitchen timer for a faster speed and try again.
To experience an awkward variation, attempt these tasks using fingers only!

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**BLINDFOLD FISHING**

**Objectives:** Develop tactile and kinesthetic perception by eliminating visual perception; heighten eye-hand coordination by eliminating visual acuity and affording only perceptual awareness.

**Materials:** Red bandanna/handkerchief; items for fishing—hammer, screwdriver, dust pan, boot; brush.

**Procedure:**
1. Have your partner or leader place a blindfold on you.
2. Fish in the box for each of the following items—hammer, screwdriver, dust pan, boot, brush.
3. Untie your own blindfold and replace items in the box.
WORK THE COMBINATION

Objectives: Develop finger manipulation and eye-hand coordination; acquaint the child with a practice which may be used frequently...now and in later life.

Materials: Two inexpensive combination locks, one red, the other blue-faced; card with ten sets of combinations.

Procedure:
1. Try as many of the ten combinations as necessary to open the red lock...leave it open and remember the combination, or make a note of it.
2. Try as many combinations as needed to open the blue lock; leave it open and make a note of the combination.
3. Practice re-locking and opening the red lock four times.
4. Practice re-locking and opening the blue lock three or four times.
5. Leave both locks closed for your next classmate to practice this task.

Note: Examples of listing of combinations for trial and error that should be posted.

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SANDPAPER FIGURES

Objectives: Select correct numbers, letters, shapes to form words; develop tactile and visual perception through eye-finger coordination and in a blindfold condition.

Materials: Sufficient numbers of letters, numbers, shapes from which to select; all forms to be constructed with sandpaper surfaces to permit tactile discrimination while blindfolded; working board.

Procedure: 1. Spell such words as cat, mouse, horse, cheese. Note: Difficulty of words is set to competency level of the children.
2. Form numbers to represent two million, three hundred ninety thousand, five hundred and sixteen. Note: Set number tasks to competency level of the group.
3. Use square pieces to form the outline of an igloo.
4. Repeat the above tasks with a blindfold.

HOMEMADE SOFTBALLS

Objectives: Use hands and fingers in tearing tape and crumbling newspapers to shape a spheroid.

Materials: Newspapers; masking tape; target barrel or trash can.

Procedure: 1. Crumple a large page of newspaper into a ball the size of a softball.
2. Wrap it with strips of masking tape.
3. Practice catching and tossing the paper ball with your partner, Big Buddy, classmate, or leader.
4. Compete with yourself or a partner in tossing the paper ball into a Clown Barrel, trash can, or some target; toss from lines 1, 2, and 3 marked with masking tape at different distances on the floor.
BATHROOM TILE MOSAICS

Objectives: Use the variety of tile pieces to make shapes and forms to provide visual perception experiences in forming simple mosaics; develop form perception skills.

Materials: As many bathroom tile pieces as needed to provide a variety of colors and sufficient to fill up a square-framed working board; some models and patterns for reference.

Procedure:
1. Form a blue frame around the periphery of the working board frame.
2. Create a right triangle within the working board area.
3. Make an equilateral triangle using another color.
4. Make a perfect square. Use a third color of tile pieces.
5. What is a rhomboid? If you know or can find out from a classmate, leader, or teacher, then make one in a variety of colors.
6. Make a basic design which is the same as the Pentagon Building.
7. Make the outline of some object—i.e., boat, church, monument, star, house.

Note: Other materials which may be used include:
- Wall-to-wall carpeting.
- Wallpaper.
- Cardboards of varying sizes and colors/designs.
MAIL A PAPER HOME

Objectives: Practice finger manipulation through coloring a picture, placing a stamp and sealing an envelope; afford practice in a practical experience in life.

Materials: Dittoed forms of pictures and figures; box of white, small sized envelopes; supply of crayons or coloring pencils; Easter or Epilepsy Foundation seals as imitation stamps; ball point or regular pencils for addressing envelopes.

Procedure:
1. Color various sections of the dittoed form using a variety of colors.
2. Address the envelope to your parents or to a friend.
3. Place a stamp in the upper right hand corner of the envelope.
4. Take the letter home for your parents to see or for delivery to a friend.

Note: In lieu of a dittoed form with pictures or designs for lower grade children...the child can elect/be directed to write a note to parents, relatives, or friends.

PENNY PACKAGING

Objectives: Practice fine motor manipulation using both pennies and wrappers.

Materials: Pint sized glass jar containing two or three hundred pennies; regular bank paper penny wrappers--real pennies are recommended for this task.

Procedure:
1. Remove a handful of pennies from the jar.
2. Set pennies in five stacks of ten each.
3. Place each stack in a penny wrapper.
4. Place rolls of pennies in the second container.
BOMB SITE PRACTICE

Objectives: Concentrate on eye-hand coordination and sighting-in as a visual acuity and perception practice; develop balance and accommodation to height.

Materials: Four foot step ladder; three bean bags; one number 10 tin can...use of a higher ladder is optional if deemed practical and safe.

Procedure:
1. Stand at floor level and drop three bean bags into the can—repeat until successful.
2. Stand on the first step of the ladder and drop the three bean bags into the tin can—repeat until successful.
3. Stand on the second step and fire three bean bags into the tin can—until successful with all three.
4. Continue dropping the three bags from the top of the ladder until all are in the can.

Note: Adaptations can be developed for five, six, eight, ten, or twelve foot ladders.

COUNTING MONEY

Objectives: Recognize sizes and shapes of coins; manipulate coins.

Materials: Jar; several metal discs of varied sizes; bottle caps; gallon milk tops; flat metal and rubber washers; ten pennies, five dimes, seven nickels, three quarters; additional play coins if available; tin can or other receptical. Note: Use of real money is recommended.

Procedure:
1. Empty all real and play coins onto a counting board.
2. Pick up three quarters and place them in the tin can.
3. Find ten pennies and place them in the can.
4. Find five dimes and deposit them.
5. Locate seven nickels and put them in the can.
6. Gather all coins, both real and play, and replace them in the jar for other classmates.
**LACE UP THE BOOTS**

**Objectives:** Develop hand and finger manipulation; develop eye-hand coordination; provide pupil with a functional and developmental experience.

**Materials:** Pair of large sized boots, preferably high topped; small chair; two balance beams—4 inches x 5 feet and 2 inches x 12 feet.

**Procedure:**
1. Remove your own shoes—if your foot and shoe are small enough, complete this task without removing shoes.
2. Put on both boots.
3. Lace boots to the top and tie laces in bow.
4. Stand up and walk around.
5. Walk forward and backward on the 4 inches x 5 feet balance beam.
6. Walk forward and backward on the 2 inches x 12 feet balance beam.

**LIGHT THE LIGHTS**

**Objectives:** Recognize sizes and shapes; see interrelationships of the parts; manipulate parts into a working project; get more acquainted with a practical and useful instrument.

**Materials:** Five flashlights (or more) in varied sizes from lantern type to pocket pen light; box to contain all disassembled parts; cushioning materials to prevent breakage.

**Procedure:**
1. Assemble correct casings, batteries, reflectors, bulbs, and shields to complete five flashlights. See if all five light-up—if not, assembling is wrong!!
2. Dismantle all five flashlights for your next classmate.
3. Replace all parts in the box as carefully as possible.