

DOCUMENT RESUME

ED 207 310

EC 140 053

AUTHOR Bornell, Donald G.  
 TITLE Movement Discovery Linking the Impossible to the Possible.  
 INSTITUTION American Alliance for Health, Physical Education, Recreation and Dance, Reston, Va. Information and Research Utilization Center.  
 PUB DATE Jan 80  
 NOTE 21p.  
 AVAILABLE FROM American Alliance for Health, Physical Education, Recreation and Dance, 1900 Association Dr., Reston, VA 22091 (\$2.00).  
 JOURNAL CIT Practical Pointers; v3 n9 Jan 1980  
 EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.  
 DESCRIPTORS Adapted Physical Education; \*Disabilities; Elementary Secondary Education; Eye Hand Coordination; \*Games; Motor Development; Movement Education; \*Physical Activities

ABSTRACT

Activities designed to increase the movement ability and enjoyment of disabled students are described. The first section discusses three activities--aerial shuffleboard, aerial golf, and bottles and eggs--designed to improve eye-hand coordination and throwing ability. The use of cardboard walking stilts is discussed as a method to improve kinesthesia and gross motor planning, while performing the Charleston is said to improve rhythmic movements to music through auditory and kinesthetic synthesis. A final activity--modified skateboarding--was created for children with cerebral palsy and poor coordination. (CL)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

# PRACTICAL POINTERS

American Alliance for Health, Physical Education, Recreation and Dance  
 Physical Education and Recreation for the Handicapped: Information and Research Utilization Center  
 1201 16th Street, N.W., Washington, D.C. 20036

Volume 3, Number 9  
 January 1980



Together we can do it.....

U.S. DEPARTMENT OF EDUCATION  
 NATIONAL INSTITUTE OF EDUCATION  
 EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it. Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

## MOVEMENT DISCOVERY

### LINKING THE IMPOSSIBLE TO THE POSSIBLE

By Donald G. Bornell Ed.D.\*

## IN THIS ISSUE: CATALYSTS FOR MOVEMENT DISCOVERY

Aerial Shuffleboard, Aerial Golf, and Bottles and Eggs.....	3
Created to improve eye-hands coordination and throwing ability while maintaining a high level of interest	
Cardboard Walking Stilts.....	7
Created to improve kinesthesia and gross motor planning through movement patterns designed to stimulate positive perceptual awareness	
Charleston to "Me and My Shadow".....	11
Created to improve rhythmic movements to music through auditory and kinesthetic synthesis	
Modified Skateboard.....	16
Created for poorly coordinated and some cerebral palsy children to learn the rudiments of skateboarding	



"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Julian Stein

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Donald G. Bornell is Health, Physical, and Adaptive Physical Education Coordinator for the Santa Barbara County Schools Office of the Superintendent. He received his B.S. Degree from Illinois State University and his M.S. and Ed.D Degrees from the University of California at Los Angeles. Dr. Bornell has taught in the elementary, secondary and college programs in his areas of current responsibility. He has also taught psychology, child growth and development, and curriculum and instruction. While on a one year contract with the Department of Education, American Samoa, he coordinated a teacher certification study; and as a consultant for the Los Angeles County Schools Office of the Superintendent, was a writing team member for The Physical Performance Test for California, and for the national curriculum "Man and Environment." He was also the cowriter and co-producer of the educational television series "Get Ahead of the Game" for guest teacher Bill Toomey, 1968 Olympic Decathlon winner. Currently, Dr. Bornell works directly with handicapped children and creates equipment and activities in keeping with their needs and interests, a few of which include a specially designed portable carrel for wheelchairs, a toilet seat unit to protect the child, a walk balance disc for spatial awareness, and portable taps for use on shoes or hands for feeling rhythm, and for teaching basic tap.

\*Dr. Bornell is coauthor with his wife Jean of the book Movement is Individuality, 1978.

ED207310

EC140053

2017200

"The importance of activity as a positive learning experience for all children cannot be overemphasized. All children in their formative years must identify with their humanness and, through awareness of the mental and physical self, be able to say and/or feel 'I AM!' Thus, an inner balance contributes to sound emotional development and understanding of similarities and differences in human beings."\*

"In the process of growth and development, all children should experience movement success within each of their capabilities and limitations and in an atmosphere which allows for optimum enjoyment through appropriate and well planned activities."\*

It's that little bit of difference in planning activities or creating new activities and equipment in the adapted or regular physical education program that links the impossible to the possible for many children. Through this linkage, each individual has the opportunity to experience movement success, so necessary for participating in pleasurable physical recreational activities throughout life.

"Children need to be challenged and stimulated in a constructive way, and they need time to develop the appropriate skills necessary to feel a part of and not threatened by physical recreational activities or sport activities programs. Children should also be given the opportunity to make choices under appropriate conditions between competitive and noncompetitive sports, and nonvigorous and vigorous activities."\*

"As we look into the future, it appears that humankind will pursue the physical activity through recreation that work once partially fulfilled, for the body is an energy system. Adults of tomorrow will seek physical recreation that involves the whole self in the way children are involved in play."\*

The activities on the proceeding pages are representative of many ways in which a teacher can help pupils in physical education, regular or adapted, link the impossible to that which eventually becomes possible. Each of these activities evolved as a result of perceiving specific needs and interests of individuals in my adapted physical education program. And, keeping foremost in mind that many children can learn to participate in at least a few of the many lifetime sports now available in our society, if given the opportunity to progress in a less obvious way from that which has been so commonly used in physical activities programs. **HOWEVER, THE SUCCESS OF ANY ADAPTED PHYSICAL EDUCATION PROGRAM LIES IN THE TRUST LEVEL BETWEEN TEACHER AND PUPIL. ONLY WHEN THE TRUST LEVEL IS REACHED CAN SELF-CONFIDENCE INVOLVE. THE TEACHER HAS TO REALLY CARE!**

\*MOVEMENT IS INDIVIDUALITY, Donald G. and Cecil Jean Bornell, 1978, Publisher, G.S.C. Athletic Equipment, San Pedro, California.

Catalyst for Movement Discovery .....

AERIAL SHUFFLEBOARD, AERIAL GOLF, AND BOTTLES AND EGGS

Aerial shuffleboard, aerial golf, and plastic bottle and styrofoam eggs were created to improve eye-hand coordination and throwing ability while maintaining a high level of interest and enthusiasm. These activities evolved out of the need for dimension-alizing the program in inexpensive ways. The activities are ideal for pre-school, primary and adapted physical education classes. Furthermore, all three activities can be played from a standing or sitting position, thus allowing for pupils in wheel-chairs to be as involved as other children.

CREATING THE AERIAL SHUFFLEBOARD

The shuffleboard targets can be made from 1/2" or 3/4" plastic water pipe, jump ropes, or draw with chalk on blacktop or concrete. Hula hoops can also be used. If the targets are made from the plastic pipe, the following steps should be taken:

1. Using a hack saw, cut the flexible black plastic pipe into 9' lengths.
2. For each 9' length, cut a piece 3" long and each 3" length cut lengthwise.
3. If the 9' lengths are too stiff to form a circle, soften in hot water.
4. Use the 3" pieces as holding dowels by gluing them into the ends of the 9' loops, thus creating approximately 34" diameter plastic hoops.

The shuffleboard discs are made from bottoms of one gallon bleach bottles or other similar plastic bottles. The following steps should be taken for cutting the bottoms off of the plastic bottles:

1. Insert a sharp pointed scissors into the bottle about 1" from the bottom of the bottle and parallel to the bottom.
2. Keeping the scissors parallel to the bottom, cut around the bottle until the bottom is free. The bottom should resemble a mini frisbee.

CREATING THE AERIAL GOLF

The same hoops that are used for aerial shuffleboard can be used for aerial golf. Bean bags, nerf balls, tennis balls or small playground balls can be used as the throwing object. Bean bags can be made as a parent or P.T.A. project and old tennis balls can usually be obtained from high school, college, or tennis club coaches.

CREATING THE BOTTLE AND THE EGG

The one gallon plastic bottles that have had the bottoms cut off, become the catching device. The styrofoam eggs can usually be purchased at a hobby or craft shop and are very reasonable. Plastic eggs can also be used, however are more expensive.

PROCESS

For the game of aerial shuffleboard, each pupil should be given one hoop and at least two mini frisbees (the bottoms of one gallon plastic bottles). The game should be played on a smooth surface such as a wooden floor or on a blacktop surface. Sufficient space should be provided for each pupil to practice without interfering with another. The mini frisbee is thrown the same way as a regular frisbee. It will probably be necessary to demonstrate both throwing and positioning of the mini frisbee in the hand. It may even be necessary to move the arm through the motion.

For the game of aerial golf, have each pupil practice throwing whichever object is going to be used in the game. In practicing throwing, make sure that when throwing with the right hand the left foot is forward, and vice versa when throwing left-handed. Some children will throw equally well with either hand and should be given that opportunity.

For the game of the bottle and the egg, each pupil should be given a one gallon plastic bottle with the bottom cut out, and one styrofoam or plastic egg. For right-handed children, the bottle should be held in the left hand by the handle, with the open bottom up, and in the right hand for left-handed children. The egg is held in the free hand. If the child has only one hand, the egg should be placed in the bottle, and the one hand is used for both tossing and catching.

AERIAL SHUFFLEBOARD ACTIVITIES

1. Each pupil should have one hoop and two to four mini frisbees. The hoop should be laid flat on a smooth surface and, from a distance of five feet away, the pupil should try to sail the mini frisbee so that it lands in the hoop.
2. After 3 out of 4 mini frisbees land and stay in the hoop, extend the throwing distance to 10 feet and continue as in step 1.
3. When sufficient skill in throwing is developed, pupils can pair off and create their own game of aerial shuffleboard by placing the hoops an agreed upon distance apart. They then take turns tossing the mini frisbees and can record on paper the number that stay within the hoop. Pupils can also decide if they want a pre-agreed upon number of tosses or points scored for a game.

AERIAL GOLF ACTIVITIES

1. Place a series of three to nine hoops far enough apart so that it takes more than one throw with whichever object will be used to get from one hoop to the next.
2. If a bean bag is used, each shot should be tossed. If a ball is used, all except the last or approach shot should be thrown towards each hoop. The approach shot should be rolled into the hoop area.
3. Practice throwing the bean bag or ball at just one of the hoops. Several pupils can practice at a time by being spread out over the course.



4. As accuracy improves, move further away from the hoop until it takes more than one toss to reach the hoop.
5. If sufficient hoops are available, several courses can be set up so that pupils do not have to stand in line waiting for a turn. It may also be advisable to set up three 3-hoop courses rather than one 9-hoop course.
6. After practicing going through the course, pupils can begin to keep track of the number of throws it takes to complete the course, and class and/or individual records can be established.
7. The above steps can be repeated using a nerf ball, tennis ball, or small playground ball. Remember, when using a ball, the last shot or attempted last shot for each hoop should be rolled.

#### BOTTLE AND EGG ACTIVITIES

1. The one gallon plastic bottles with the bottoms cut off are held by the handle with bottoms up, in the left hand for a right-handed pupil, and the right hand for a left-handed pupil.
2. The plastic or styrofoam egg is held in the dominant hand and with an underhand toss thrown straight up into the air. The egg should then be caught in the bottle. Tell the pupils that the eggs are very fragile and should not fall to the ground. This helps the child to focus in on the task. Emphasize throwing the egg a very short distance into the air so that it will not be missed.
3. After the pupil catches 3 out of 5, reverse hands using the catching hand as the throwing hand. Practice until some skill is achieved. The advantage in using a plastic or styrofoam egg not only allows for the child to focus on the task, it also will not roll very far if missed, which keeps frustration at a minimum.
4. Have the pupils pair off and practice throwing one egg back and forth, trying to see how many times they can catch it without missing.
5. Substitute small bean bags for the plastic eggs and repeat the above steps.





CARDBOARD WALKING STILTS (with elastic and non-elastic cords)

The cardboard walking stilts are used to improve kinesthesia and gross motor planning through movement patterns designed to stimulate positive perceptual awareness. Some of the recommended activities also bring about vestibular stimulation. The class set of blocks are strung in two different ways. Half of the set is strung with elastic cord, and the other half is strung with non-stretch cord. In working with children who exhibit motor coordination problems, or who are slow learners, the elastic cord strung cardboard stilts are ideal. Because these cords can be held with slight tension, it is not necessary to raise the arm and hand each time the foot is raised in order to keep the foot on the stilt, thus allowing the pupil to focus on only one motor task at a time instead of the usual two. Most children, whether in the regular or the adapted physical education class, can experience success in walking on these stilts with the elastic cords.

After the child experiences success with the elastic cord stilts, the non-elastic cord stilts can be tried. These stilts add another motor task by requiring the child to raise the arm and hand in unison with the foot to keep the stilts in contact with the sole of the foot.

Cardboard walking stilts are ideal for use in the preschool through primary grades physical education and adapted physical education programs.

CREATING THE STILTS

The cardboard walking stilts are made from centers of carpet rolls, which are long cardboard tubes approximately four inches in diameter. The handles are made from any durable round elastic and non-elastic cord.

1. Cut the cardboard into 4" lengths using a fine tooth saw or a band saw.
2. Drill two holes in each 4" section opposite each other and 1" in from the edge.
3. Cut the cords into 5' lengths.
4. Thread the cord through the two holes and tie.
5. If used as a class project, give each child two 4" long pieces of pre-drilled cardboard tubing, two 5' long cords, and a set of paints.
6. Allow each child to create his or her own designs on the tubes before threading the cords through.

PROCESS

Before using the cardboard walking stilts, it would be helpful if the child had the opportunity to practice walking on the mini metric beams and balancing on the walk 'n' balance disc.\* After learning to walk on the stilts, the child will be ready to participate in group activities using the stilts.

The stilts with the elastic cords, although designed for lower level entrance performance than the non-elastic cord stilts, still require some balance skill and eye-foot coordination. When first working with a child, it may be necessary to help the child properly locate the foot on the stilt. Always make certain that the foot is far enough on the stilt for a secure feeling.

\*Beams and balance platforms can be made or purchased through equipment supply companies.

CARDBOARD WALKING STILTS ACTIVITIES

1. When the child first begins to use the stilts, the teacher should stand next to or in back of the child to lend assistance. The teacher may even have to demonstrate using the stilts. Place the stilt in front of the child's foot and have the child step on to it. Hand the cord to the child. Have the child take a step with the stilt. Have the child practice using one stilt.
2. Practice using the stilt on the opposite foot.
3. Now have the child step onto both stilts. If the child has difficulty walking with the stilts, replace with stilts strung with elastic bands. Have child anchor bands on knees or thighs by holding the band so that it is slightly stretched. Have the child try walking without moving the hands and concentrate on the feet only.
4. Practice walking forward and backward.
5. Practice a side step to the right and to the left.
6. Now exchange the elastic band stilts for non-elastic band stilts and repeat steps 4 and 5.
7. If the child has difficulty coordinating the hand-foot movement, walk behind the child holding on to each hand, lifting it with each step of the stilt.
8. After the children experience walking success on the stilts, a mini obstacle course can be created out of small boxes, cones, hoops, plastic bottles, and bicycle tires for the children to move around, over, and into.



9. Make sufficient obstacles available for the children to create their own mini courses and practice at an individual pace.
10. After sufficient skill is attained on the stilts, a child can be given a six-inch playground ball to practice kicking while on the stilts.
11. Once skill is attained in kicking the ball, children can be paired up and practice kicking the ball back and forth to each other.
12. As soon as a group of children learn to control the ball, they can be grouped into a game of zone soccer or other modified ball kicking games which can be played in a limited area.
13. When a child attains a high level of skill on the stilts, he or she can be further challenged by crossing the cords and having the right hand control the left foot and the left hand control the right foot.
14. Using the pattern in step 13, have the child try walking backward.
15. Using the same holding pattern, try moving through an obstacle course.
16. Competitive activities may include:
  - a. Kicking a ball for distance while on the stilts.
  - b. Kicking a ball for accuracy at a plastic bottle or between two cones.
  - c. Backward walking relay on the stilts.
  - d. Ball kicking relay on the stilts.
  - e. Obstacle relay on the stilts.





Catalyst for Movement Discovery .....CHARLESTON TO "ME AND MY SHADOW"

Because the basic steps of the "Charleston" are fun to do, the dance has a built-in motivational factor not always present in many of the dances taught in school. Furthermore, the primary step is a simple forward and backward walking movement and can be learned by many exceptional children. When children have difficulty coordinating the steps to slow music such as "Me and My Shadow," DISCO TAP<sup>®</sup> taps can be used on the shoes so as to feel and hear the body rhythm in relationship to the music. When hearing the taps and the music, it is often easier to synchronize the two sounds as opposed to hearing the music without the tap sound. After the pupil begins to feel the rhythm, he or she may have the choice of removing the taps or continuing with them on. Taps are especially helpful for children with hearing impairments and for those who are blind. If the pupil had difficulty coordinating the foot pattern to the music, the teacher may need to walk the child through the movement, demonstrating each step while slowly increasing the speed.

PROCESS

The pupils should be given the opportunity to listen to slow 4/4 music such as "Me and My Shadow." After listening to the music for awhile, the teacher can tap or clap the beat and the children can then join in. The teacher can recite with the beat, "get/the/rhy/thm." If DISCO TAP<sup>®</sup> taps are available, they can be placed on the hands and tapped on the desk, tapped against each other, or on a lap tap board made from masonite. By using this approach, the feeling of rhythm can begin to evolve prior to actually trying to move the feet to the music.

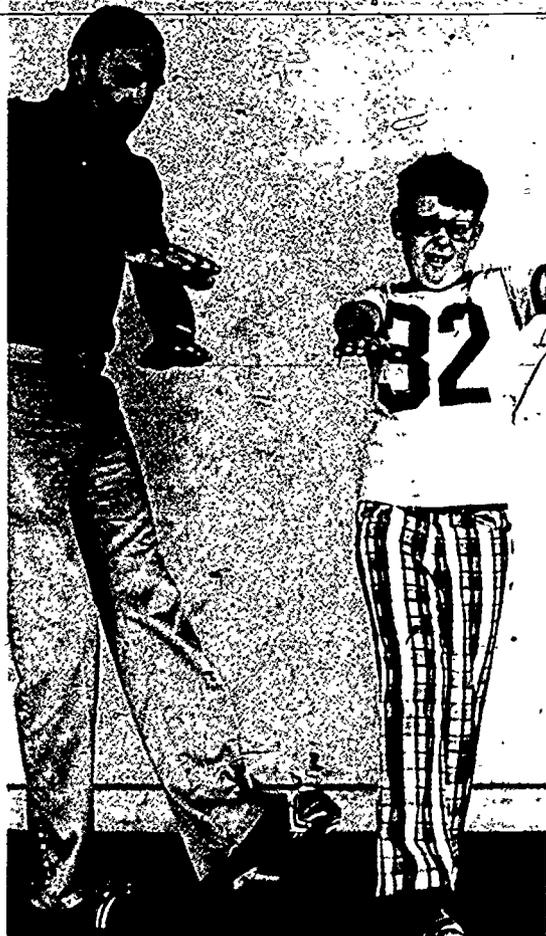
BASIC STEPS FOR THE CHARLESTON

1. From a natural standing position, step forward on the left foot, step forward on the right foot; step back on the right foot, step back on the left foot.
2. Take four steps forward, starting on the left foot and ending on the right foot.
3. Take four steps backward, starting on the right foot and ending on the left foot.
4. Do a complete circle to the left, starting on the left foot by taking four steps and finishing on the right foot in the original position.
5. Do a complete circle to the right, starting on the right foot by taking four steps and finishing on the left foot in the original position.



\*DISCO TAP<sup>®</sup> taps are portable taps held in place with elastic straps and velcro and can be used on the shoes or hands for tap dancing or lap tapping. They are manufactured by E. B. Smith Tap Co. and are available at most tap dancing supply stores or through G.S.C. Athletic Equipment of San Pedro, California.

6. With feet in line parallel and about 6" apart, bend knees slightly and place hands on knees. Bring knees together and slip the right hand over the left and the left under the right simultaneously finishing with the right hand on the left knee and the left hand on the right knee as the knees move apart. The arms are now crossed. Bring knees together again and exchange location of hands so that they are again right hand on right knee and left hand on left knee as knees move apart. Arms are now uncrossed. Some may find it easier to slide the left hand over the right hand and the right hand under the left hand.
7. Taking the same starting position as in # 6, point the toes of the shoes in by pivoting on both heels. Point the toes out by pivoting on both heels. Repeat, toes in, toes out.
8. Again taking the same starting position as in # 6 with hands on knees, move to the right by pivoting on the right heel and left toe, heels come together; left heel right toe, toes come together; right heel, left toe, left heel, right toe (this is a very difficult movement and some children may not be able to learn it).
9. Take four steps forward starting on the left foot and finishing on the right foot with feet parallel to each other and in line. Place hands on knees and take four jump steps backward (like a hopping rabbit).
10. Again take four steps forward starting on the left foot. With hands on knees take four jump steps backward, slapping the knees between each jump step, which becomes a hop, slap, hop, slap (this is also a difficult movement and may not be learned by all children).
11. Step forward on the left foot and swing the right leg in front of the left leg. Step back on the right foot and bring the left leg back so that the toe of the left foot touches the floor behind the right foot and to the rear.
12. Repeat #11 adding arm movement. As the left foot moves forward, both arms swing simultaneously to the left; as the right foot swings forward, both arms swing simultaneously to the right; as the right foot comes back, both arms swing simultaneously to the left; as the left foot comes back, both arms swing simultaneously to the right.



CHARLESTON TO ME AND MY SHADOW  
(Eric Rogers and his Orchestra)  
(The Percussive Twenties)

<u>MEASURES</u>	<u>LYRICS</u>	<u>STEPS</u>
1	No music (four beats of tapping)	No steps (listen to the beat)
2	No music (four beats of soft shoe)	No steps (listen to the beat)
3	No music (two beats of tapping, two beats of soft shoe)	No steps (listen to the beat)
4	No music (one beat of tapping, one beat of soft shoe, one beat of tapping, one beat of soft shoe)	No steps (listen to the beat)
5	Me and My	Step forward on left foot, step forward on right foot, step back on right foot, step back on left foot (basic step # 1)
6	Shadow	Repeat measure 5
7	Music	Take four steps forward starting on the left foot (basic step # 2)
8	Music	Take four steps backward starting on the right foot (basic step # 3)
9	Me and My	Step forward on left foot, step forward on right foot, step back on right foot, step back on left foot (basic step # 1)
10	Shadow	Repeat measure 9
11	Music	Do a complete circle to the left starting on the left foot by taking four steps and finishing on the right foot in the original position (basic step # 4)
12	Music	Do a complete circle to the right starting on the right foot by taking four steps and finishing on the left foot in the original position (basic step # 5)
13	Music	Step forward on left foot, step forward on right foot, step back on right foot, step back on left foot (basic step # 1)
14	Music	Repeat measure 13

<u>MEASURE</u>	<u>LYRICS</u>	<u>STEPS</u>
15	Music	Place hands on knees, bring knees together and slip the right hand over the left hand and the left hand under the right hand, finishing with right hand on left knee and left hand on right knee as knees move apart; bring knees together again and exchange location of hands so that they are in starting position, right hand on right knee, and left hand on left as knees move apart (basic step # 6)
16	Music	Repeat measure 15
17	Me and My	Step forward on the left foot and swing the right leg in front of the left leg. Step back on the right foot and bring the left leg back so that the toe of the left foot touches the floor behind the right foot and to the rear (basic step # 11)
18	Shadow	Repeat measure 17
19	Music	Hands on knees, move to the right by pivoting on the right heel and the left toe, left heel and right toe, right heel and left toe, left heel and right toe (basic step # 8)
20	Music	Repeat measure 19 moving to the left
21	Music	Rest with hands on hips
22	Music	Step forward on the left foot and swing the right leg in front of the left leg. Step back on the right foot and bring the left leg back so that the toe of the left foot touches the floor behind the right foot and the rear (arm movements can be added as in basic step # 12)
23	Music	Repeat measure 22 using arm movements
24	Music	Take four steps forward starting on the left foot (basic step # 2)
25	Music	Take four jump steps backward, slapping the knees between each jump step (basic step # 10)
26-47	Music	Use any steps that have been learned



Catalyst for Movement Discovery .....MODIFIED SKATEBOARD

The modified skateboard was designed to allow students who show signs of poor motor coordination or have CNS (central nervous system) impairment to learn the rudiments of skateboarding. The skateboard is substantially heavier than standard boards to give greater stability. The rear of the board is flat, and the handle is placed behind the front wheels in order to keep the board from tipping up if the foot is placed too far to the rear, or tipping forward if the foot is placed too close to the front. The handle can be removed without the use of tools, thus eliminating the problem of misplacing nuts, bolts, or wrench. The quick removable handle allows for greater continuity in progression and for working with pupils of varying stages of ability.

CREATING THE MODIFIED SKATEBOARD

1. Cut the skateboard base from  $\frac{3}{4}$ " plywood 26" by 6".
2. Using a 3" radius, mark semicircles at both ends of the board and cut along the line with a portable jigsaw or band saw.
3. From the scrap plywood cut a 3" square.
4. Glue the 3" square  $4\frac{1}{2}$ " on center from the end of the board (since both ends of the board were cut the same, either end will do). For added strength, secure the 3" square in all four corners with four  $1\frac{1}{4}$ " flat head wood screws.
5. Using a  $1\frac{1}{4}$ " bit and electric drill, drill a hole through the center of the 3" square and skateboard base.
6. Cut a  $1\frac{1}{2}$ " dowel 30" long and make a pencil mark  $1\frac{1}{2}$ " in from one end completely around the dowel.
7. On that same end make a circle  $1\frac{1}{4}$ " in diameter, and using a sharp knife or wood rasp, trim that end down to the pencil marks until it fits snugly into the  $1\frac{1}{4}$ " hole drilled through the skateboard base. It may be necessary to sand the trimmed end for a better fit.
8. Drill a  $\frac{3}{16}$ " hole about 1" deep into the same end and screw a  $2\frac{1}{2}$ " long  $\frac{1}{4}$ " two-way wood/machine thread screw into the hole. Wrap the machine threads with masking tape to protect the threads while screwing it into the hole with a pair of pliers.
9. Drill a  $\frac{7}{8}$ " hole about  $1\frac{1}{2}$ " on center from the other end of the  $1\frac{1}{2}$ " dowel. The handle grip will be slid through this hole.
10. Cut a 10" piece from a  $\frac{7}{8}$ " dowel and slip through the hole, leaving  $6\frac{1}{4}$ " protruding from both sides. Drill a small hole in the  $1\frac{1}{2}$ " dowel at right angles to the  $\frac{3}{4}$ " dowel, and insert  $1\frac{1}{2}$ " flathead screw to secure the handle grip.
11. Mount the skateboard wheels  $\frac{1}{2}$ " in from the two ends on the same side as the 3" square is mounted. The front wheels should be between the 3" square and the front edge. The rubber mountings of the two sets of wheels should face each other.
12. Insert handle through the hole, place two  $1\frac{1}{2}$ " washers and  $\frac{1}{4}$ " wing nut on the end of the screw and secure, making sure the handle grip is at right angles to the skateboard.

PROCESS

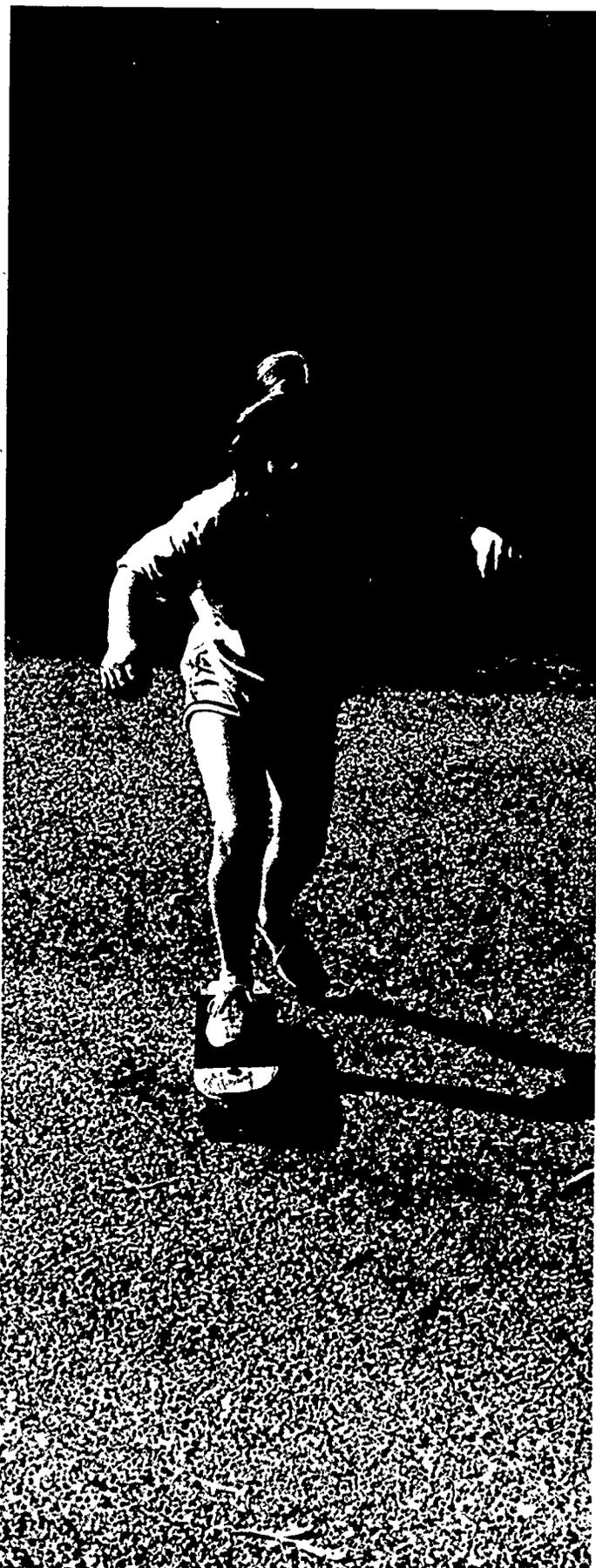
In the process of learning to use the modified skateboard, the pupil should first practice on a low balance beam, being able to walk to the center, turn around, and walk back. The pupil should also be able to perform a scale on the low balance beam. To perform a scale, the arms are extended out from the side, the upper part of the body is bent at the waist, either foot is extended to the rear and raised about waist high. A pupil can practice the above on a chalk line marked on the floor or blacktop. Protect the severely handicapped with helmet and knee and elbow pads.

## MODIFIED SKATEBOARD ACTIVITIES

1. Hold handle grip with both hands and place the right foot on skateboard with toe against handle. Push with left foot propelling the skateboard. Begin slowly. It may be necessary to demonstrate the movement. It may also be necessary to hold onto the handle while pupil is practicing. Keep practice area clear of debris.
2. Have pupil practice step 1 using the left foot on skateboard.
3. Go through steps 1 and 2 increasing the speed. Move along with pupil staying on side opposite push foot in order to lend assistance.
4. After pupil begins to feel balance while in motion, suggest holding push foot up while coasting.
5. Repeat step 4 using opposite foot.
6. After steps 4 and 5 are learned, have pupil push off three times and place push foot behind foot on board. This movement may have to be demonstrated. Some children can balance better using only one side of the board for pushing. To lend assistance with this movement, move along with the pupil staying on the side opposite the push foot.
7. Observe the location of the feet on the board and make sure they are lined up along the center for better balance.
8. Repeat step 6 reversing the foot position.
9. After pupil is able to coast with both feet on the board, ask the pupil to release the left hand while continuing to coast. Again, this movement may have to be shown.



10. While holding the handle with one hand, push off three times and coast. While coasting, release the handle with holding hand. Move along with the pupil to lend assistance if necessary.
11. When the pupil is capable of releasing both hands while coasting, ask the pupil to try pushing off three times and placing the push foot on the board without the hands touching the handle grip.
12. When the pupil feels balance in motion without holding on to the handle grip, remove the handle and repeat step 11. Again move along with the pupil to lend a helping hand if necessary.
13. Ask the pupil to reverse the foot position and try it from the opposite side. Demonstrate if necessary. Then allow the pupil to work from the side that seems most natural.
14. Replace the handle and practice turning. To turn to the right, lean slightly to the right with knees bent slightly towards the right. Hold onto the handle grip through the turn.
15. To turn to the left, lean slightly to the left with knees bent slightly towards the left. Hold onto the handle grip through the turn.
16. Practice steps 13 and 14 while releasing the handle.
17. After sufficient skill has been attained, remove the handle and practice the turns in either direction.
18. To develop skill and confidence, have pupil move around plastic bottles or cones placed about twenty feet apart.



DIMENSIONS

The pupils who have mastered the above steps can then go on to participating in community skateboard activities. Some pupils will always need to use the handle, however, can still enjoy the feeling of free movement on wheels. Allow pupils to set up their own skateboard course using plastic bottles. They can also time themselves to find out how long it takes to move through the course and then try to improve on their own times.

MOVEMENT RELATIONSHIPS

- Riding a bicycle
- Roller skating
- Surf boarding
- Skiing

ENVIRONMENTAL RELATIONSHIPS

- Controlling a vehicle in traffic
- Balancing on a ladder
- Driving a moped
- Conveyer belts

EVALUATION

The Following three levels of evaluation are offered as guidelines for pupil entry into the activity, and for the learner to establish short and long-term objectives with teacher assistance.

LEVEL I

1. Holding handle grip, with right foot on skateboard, pupil pushes off with left foot and coasts.
2. Holding handle grip, pupil pushes off and coasts, placing push foot on skateboard.

LEVEL II

1. Holding handle grip with one hand, pupil pushes off and coasts.
2. Holding handle grip with one hand, pupil pushes off and coasts, placing push foot on skateboard.
3. While holding handle, pupil can turn skateboard by leaning in appropriate direction.

LEVEL III

1. Without holding handle grip, pupil can push off and coast.
2. Without holding handle grip, pupil can coast with both feet on the skateboard.
3. Without holding handle grip, pupil can turn skateboard while coasting with both feet on the board.

YES NO COMMENTS

	YES	NO	COMMENTS
1. Holding handle grip, with right foot on skateboard, pupil pushes off with left foot and coasts.			
2. Holding handle grip, pupil pushes off and coasts, placing push foot on skateboard.			
1. Holding handle grip with one hand, pupil pushes off and coasts.			
2. Holding handle grip with one hand, pupil pushes off and coasts, placing push foot on skateboard.			
3. While holding handle, pupil can turn skateboard by leaning in appropriate direction.			
1. Without holding handle grip, pupil can push off and coast.			
2. Without holding handle grip, pupil can coast with both feet on the skateboard.			
3. Without holding handle grip, pupil can turn skateboard while coasting with both feet on the board.			

We are indebted to Donald G. Bornell for his willingness to share some of his creative activities and resourceful approaches he has devised and uses in both regular and adapted physical education classes. This sampling of activities and approaches reemphasizes the importance of knowing, and understanding children, their interests and needs if one is to plan and provide meaningful physical and motor experiences for them. Capturing and capitalizing on student interests in ways that are appealing and challenging to them make successes more likely.

Through activities presented in this Practical Pointer, each student can be actively involved in learning experiences that are pleasurable, enjoyable, and FUN. Both activities and approaches are kept simple and avoid the trap of making them too complicated and overly sophisticated. Within this framework, activities are individualized and personalized according to interests, needs, and abilities of each child. The activities and approaches presented are consistent with interests of children, needs of teachers, and both intent and letter of laws insuring appropriate physical and motor activities as part of free, appropriate education in least restrictive environment guaranteed every child with a handicapping condition.

Readers and users of this Practical Pointer have before them examples of activities and approaches that have stood tests of time; they are practical, relevant, and well-received by children and teachers alike. This sampling of activities and approaches should whet appetites of both teachers and students so that working together they explore many new and exciting ways to reach new heights and vistas in and through the physical and motor domains. Donald Bornell has stimulated and challenged each of us through a very valuable and meaningful contribution in this Practical Pointer. His efforts not only link the impossible to the possible, but will make many impossible dreams come true. For all of this, and all that his efforts will stimulate, sincere thanks and appreciation for a job extremely well-done are extended to Donald G. Bornell.

Julian U. Stein; Consultant  
Programs for the Handicapped

The American Alliance for Health, Physical Education, Recreation and Dance does not discriminate in any of its programs and activities on the basis of race, religion, color, national origin, sex, or handicapping conditions.

"The importance of activity as a positive learning experience for all children cannot be overemphasized. All children in their formative years must identify with their humanness and, through awareness of the mental and physical self, be able to say and/or feel 'I AM!' Thus, an inner balance contributes to sound emotional development and understanding of similarities and differences in human beings."\*

"In the process of growth and development, all children should experience movement success within each of their capabilities and limitations and in an atmosphere which allows for optimum enjoyment through appropriate and well planned activities."\*

It's that little bit of difference in planning activities or creating new activities and equipment in the adapted or regular physical education program that links the impossible to the possible for many children. Through this linkage, each individual has the opportunity to experience movement success, so necessary for participating in pleasurable physical recreational activities throughout life.

"Children need to be challenged and stimulated in a constructive way, and they need time to develop the appropriate skills necessary to feel a part of and not threatened by physical recreational activities or sport activities programs. Children should also be given the opportunity to make choices under appropriate conditions between competitive and noncompetitive sports, and nonvigorous and vigorous activities."\*

"As we look into the future, it appears that humankind will pursue the physical activity through recreation that work once partially fulfilled, for the body is an energy system. Adults of tomorrow will seek physical recreation that involves the whole self in the way children are involved in play."\*

The activities on the proceeding pages are representative of many ways in which a teacher can help pupils in physical education, regular or adapted, link the impossible to that which eventually becomes possible. Each of these activities evolved as a result of perceiving specific needs and interests of individuals in my adapted physical education program. And, keeping foremost in mind that many children can learn to participate in at least a few of the many lifetime sports now available in our society, if given the opportunity to progress in a less obvious way from that which has been so commonly used in physical activities programs. **HOWEVER, THE SUCCESS OF ANY ADAPTED PHYSICAL EDUCATION PROGRAM LIES IN THE TRUST LEVEL BETWEEN TEACHER AND PUPIL. ONLY WHEN THE TRUST LEVEL IS REACHED CAN SELF-CONFIDENCE INVOLVE. THE TEACHER HAS TO REALLY CARE!**

\*MOVEMENT IS INDIVIDUALITY, Donald G. and Cecil Jean Bornell, 1978, Publisher, G.S.C. Athletic Equipment, San Pedro, California.

