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ABSTRACT

Opportunities for the enhancement of total development must be available to children once they enter the educational system. The physical education program of the total school curriculum should provide these opportunities. Striving for the total development of children through physical activity is explained in the model for "thinking and feeling through movement." This model proposes that children must first be taught to think about their movements and that once this occurs all variables relative to movement will be affected in a positive way. Maximizing the learning experience in physical activity may be attained through use of this model. The idea of learning through physical activity covers a broad range of possibilities. There are many known physical education activities (games, drills, relays, etc.) which provide excellent opportunities for enhancing learning during a normal physical education class. Detailed descriptions of seven types of physical activities that promote total development are attached. (Author/JD)

ENHANCING THINKING ABILITIES IN CHILDREN THROUGH MOVEMENT

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by

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What is "total development?" Most educators think of it as the end result of learning experience that affect the three behavioral domains (cognitive, psychomotor, and affective). It is time that physical educators start selecting physical activities that provides opportunities for children to develop in all domains and with the chance of becoming a fully functioning individual. The profession has professed to do this but after examining the products (those who graduate from high school) it is obvious total development is lacking. For example, one could ask the following questions:

1. How could an 18 year old go through physical education programs in the schools and not be able to strike a ball properly or run with correct technique?

2. How can it be that children reaching puberty have poor balance or poor eye-hand coordination?

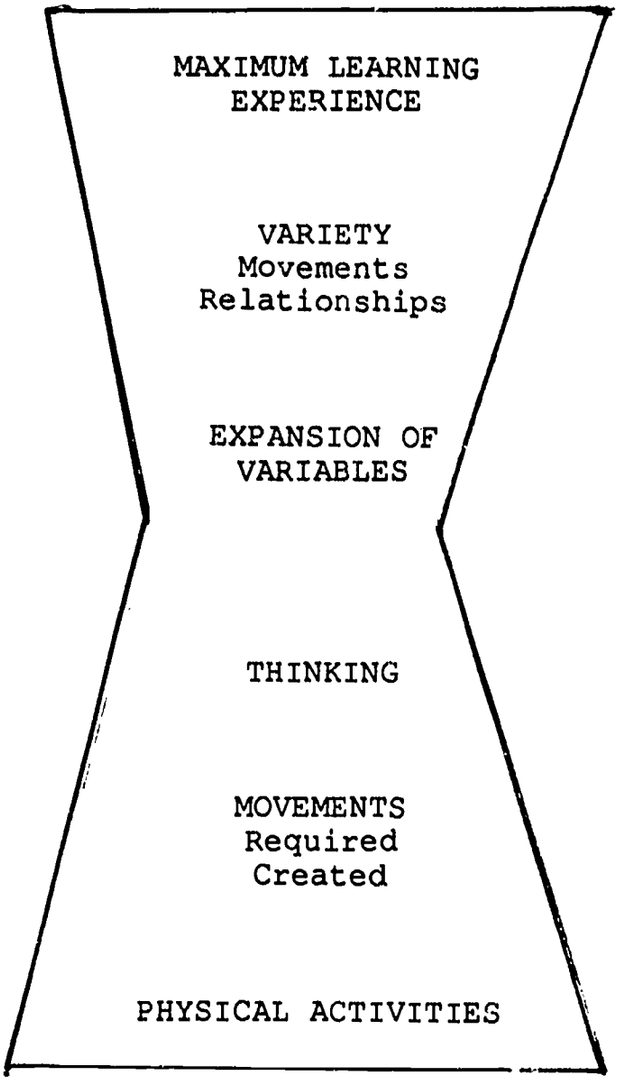
3. Why is it that many college students strive to develop body strength and endurance?

4. Why is it that many young adults enter the work force and have weak physical skills and poor health habits?

Any number of questions like these could be asked. Frankly, finding answers is not easy.

Opportunities for the enhancement of total development must be available to children once they enter the educational system. The physical education portion of the total school curriculum should provide these opportunities. These experiences can exist in the form of selected physical activities that maximize the component of play. Children that are involved in learning experiences where play is evident stand a better chance to develop in all behavioral domains.

Striving for the total development of children through physical activity is explained in the model for thinking and feeling through moving.



THINKING AND FEELING THROUGH MOVEMENT

This model can be explained much like sand through an hour glass. When the sand is in the bottom of the glass, it is much like the physical activities in which children participate. Each particle of sand represents one game, relay, dance, gymnastic stunt, or any other activity. Each activity has <u>required movements</u> in order to participate as well as movements that may be <u>created</u> by the child. All movements require children to <u>think</u>. They must think about sequence, progression and patterns before completing the movement. Unless the teacher or leader of the activity teaches the child to think, chances are that he/she may receive only limited benefits from the experience.

Once a child has the ability to <u>think</u> about movement in physical activity, the hour glass maybe inverted with the sand flowing in a different direction. The ability to think about movement will allow the child to <u>expand on all variables</u> associated with the activity. Feelings, knowledge and skills will be developed. As a result, the child begins

to realize the great variety of movement possibilities associated with physical activity. This happens because relationships are developed and movement skills are refined. When relationships are learned and skill refinement occurs, the child may truly receive maximum benefits from the learning experience.

In this model, the sand starting in the bottom of the hour glass represents the foundation necessary for total development. When the hour glass is inverted, it represents the many possibilities for learning to occur in all behavioral domains. The variable of time is difficult to control because all children learn at different rates. The physical education teacher must continually provide good learning experiences in a positive environment and hope that time will be to the child's benefit.

The idea of learning through physical activity covers a broad range of possibilities. It is important for the physical education teacher to realize that any movement requires basic learning first followed by the learning of complex functions.

The attached list of physical activities have been found to be effective for in providing children with the best opportunity for total development. In fact, almost any physical activity can be effective provided the teacher will pull all of the potential from it. Some of the activities are used as examples of this potential.

PHYSICAL ACTIVITIES THAT PROMOTE TOTAL DEVELOPMENT

I. Rhythmical Activities

A. The Hip (use both hips -- first one, then the other).

1. Make the hip:
   a. Jump to the beat.
   b. Shake to the beat.
   c. Twist to the beat.

2. Discuss the meaning of "jumping," "shaking," and "twisting."

3. Ask children to explain what each movement feels like. Relate it to a past experience.

B. The Leg (both legs--first one, then the other).

1. Make the leg!
   a. Circle to every beat.
   b. Move forward and backward to the beat.
   c. Bend and twist to the beat.

2. Discuss the meaning of circling, forwards, backwards, bending and twisting.

3. Ask which movement is the easiest? Which feels odd or different?

C. The Arm (both arms--first one, then the other).

1. Make the arm:
   a. Move up and down with each beat.
   b. Move in a square shape, one beat section of square--use a total of four beats.
   c. Throw an object (imagery) use four beats per throw.

2. Discuss the meaning of "up," "down," "square shape," and "throwing."

3. How do these movements relate to what you do in the classroom?

D. Sequencing.

1. Walk eight steps, one beat per step, stop on the eight beat, and count all of your fingers, counting one per each beat (ten beats).

2. Do four steps together, one step per beat, stop on fourth beat; make elbows jump, one jump per beat, total of four beats; hop on one foot, one hop per beat, stop on fourth beat and hold balance for four beats.

3. Put one arm forward and make it go up and down, one beat up and one beat down. While doing this take the other hand and rub the tummy (one rub per beat) and at the same time swing one leg backwards and forwards to the beat (one beat backwards and one beat forward.)

4. Discuss with the children why it is more difficult to make multiple parts move as compared to only one part.

E. Clapping.

1. Clap, clap, pause, clap, clap
beat, beat, _____, beat, beat.

2. Clap, clap, clap, pause, clap, clap, pause, clap
beat, beat, beat, _____, beat, beat, _____, beat.

3. Clap, pause, clap, pause, clap, pause
beat, _____, beat, _____, beat, _____.

4. Repeat the sequences in 1, 2, and 3 except use the feet to tap the beat instead of the hands.

5. Once the sequence has been learned, have the children count the sequence.
1, 2, 3, 4, 5, 6
Clap, clap, pause, clap, clap, pause.

NOTE: It is very important for the children to learn how to count the beats and pauses. Discuss with the children the importance of counting in physical education.

Discuss with the children which is easier -- using the hands? using the feet? or verbally counting the beats?

Allow the children time to make and demonstrate new movement sequences. Can also relate this to sport related skills.

II. Exercises to Rhythm

A. Tummy and Back

1. Move their tummies with the beat.
   a. Out, then in, out, then in (keep backs still and shoulders down).
   b. Do same as above but twice as fast to the beat.
   c. Move through space keeping the tummies moving to the beat.

2. Exercise abdominal and back muscles to the beat by:
   a. Using belly and back to pull in the knee. Use four beats to pull in and four beats to extend out.
   b. Standing with hands and feet on the floor and slowly extend one leg out and up as the head pulls toward the chest. Use four beats to extend the leg and four to lower it.

3. Find their waist and put hands around it to:
   a. Lift it up so you are standing on the toes. Inhale during the lift. Use four beats. Exhale during the release. Use four beats to let the waist back down.
   b. Make the waist change directions by using the hands to push it. Push in a different direction on every beat.

B. Arms and Legs

1. Beat 1 - raise legs off floor, beat 2 - cross legs off floor and extend arms, beat 3 - extend legs (off floor) and cross arms, beat 4 - cross legs (off floor) raise arms above head and turn head (right or left). Can repeat the sequence.

2. Beat 1 - raise legs off floor point the toes, beat 2 - lower legs to floor, beat 3 - pull legs to hips, beat 4 - release extend legs out. Can repeat the sequence.

III. Sequencing and Body Parts

A. Give a sequence of beats and have the children respond by clapping. Examples are listed.

1. Beat, beat, beat, pause, beat, beat.
2. Beat, pause, beat, beat.
3. Beat, beat, pause, beat, beat, pause, beat, beat.
4. Beat, pause, beat, pause, beat, beat, beat, beat.

B. Give the children a sequence of body parts to slap with their hands to a given beat sequence. Examples are listed.

1. Shoulders, knees, clap hands, ears.
   Beat, beat, pause, beat.

2. Toes, thighs, hips, clap hands.
   Beat, beat, beat, pause.

3. Nose, elbows, clap hands, clap hands.
   Beat, beat, pause, pause.

NOTE: There are many variations for these sequences. It is very important for the children to listen in order to complete these rhythmical sequences. Discuss with the children the meaning of rhythm to movement. Ask them to explain the difference between movement with good flow and sporadic movement.

IV. Basic Movement Skills and Rhythms.

A. With an even beat have the children do the following.

1. Walk on their toes.
2. Walk on their heels.
3. Walk sideward, backward.
4. Spanking runs (one beat per step).
5. Slow running steps (one beat per step).
6. Sliding or skating steps.
7. Run and leap, run, run, leap.
   Beat, beat, beat.
8. Run and change directions ever fourth beat.

B. With an uneven beat have the children do:

1. Step, step, bend, step, step, step
   Beat, beat, pause, beat, beat, beat.

2. Run, run, run, turn, step, step, step
   Beat, beat, beat, beat, pause, beat, beat.

3. Jumping jack, collapse, roll over, sit-up
   beat, beat, pause, beat, beat.

NOTE: Many possible variations to these sequences. It is recommended to change from even to uneven beat sequences. Discuss the meaning of even and uneven beats. Ask the children what situations may require movements to an even beat? to an uneven beat? Relate these movements to other skills.

C. Make the shape of a number!

1. Three small groups. One group will make a three standing, another group will make a three sitting and the third group will make the three lying down. Which group completes the shape of the number first.

   Variation:
   One group makes the number twist.
   Another group makes the number stretch.
   Third group makes the number bend.

   Variation:
   One group makes the number move forwards.
   One group makes the number move backwards.
   One group makes the number move sideways.

2. Three small groups. One group will use the hands to make the number two. Another group will use arms to make the number two. A third group will make the number two using the legs. Look for the first group to complete this task.

   Variation:
   Hand group makes a very small number.
   Arm group makes a large number.
   Leg group makes a very large number.

NOTE: Judge the shape of the numbers for correct interpretation. Ask the children to discuss their feelings about various numbers and the shapes required to make them.

D. Nonlocomotor and Locomotor Movements and Numbers

1. Four groups. One group hops the shape of the number six. Another group jumps the shape of the number six. A third group walks the shape of the number six. A fourth group runs the shape of the number six.

   Ask: Which movement is fast?
   Which movement is slow?
   Which is most difficult to do?

2. One group and use a phone number. This is a timed activity. How long does it take for the group to use their bodies to form the shape of the phone number used.

   Observe: Is the number correct?
   Are all numbers in the correct position?

Ask: Why does it take a certain amount of time to make the phone numbers?
Would some phone numbers be easier than others? Why?

V. Group Activities

A. Waste Can Basketball
Circle formation, wastepaper can in the center. One player to guard the can. On "go" players in circle begin to toss rolled up wastepaper trying to hit the goal or can. How many goals scored in 30 seconds, 60 seconds, etc. Leader or instructor can guard the can for younger children (ages 5-7).

B. High Toss
All toss beanbag higher than head. All must catch at the same time. Recommended for ages 5-8.

C. Go, Go, Stop
On "go" all must walk - on "stop" all must stop at the same time. Can be used for all ages.

D. Circle Spot - Beanbags
Circle with 4 feet apart between each player. It is in center of circle - on signal everybody walk, skip, hop, etc. On second signal - everybody tries to step on beanbag. Recommended for ages 5-9.

E. Basketball Relay
Lines - equal numbers - use large sponge balls. Dribble twice, shoot - next person makes a knee catch and does same on to next player. Recommended for ages 10-12.

F. Knee Pass Relay
Lines - equal numbers - use large sponge balls. Hold ball between knees, pass to next in line. Consider age of children when deciding on the type and size of ball to use. Recommended for ages 8-10.

G. Sit Down Volleyball
Use large sponge balls/balloons. Two groups facing each other. If ball/balloon hits floor, it is a point. Recommended for children ages 10-13.

H. Throw and Catch Relay
Lines facing each other. Throw and catch to opposite player. Timed - see how long it takes to get ball from one end of line to the other. Recommended for ages 9-12.

I. Blind Tag
Rows of equal numbers. One is "it" - one is being chased - on command from teacher, rows shift. Runners must change accordingly. Can change its runners at any time. Recommended for children ages 10-13.

J. Keep Away
Circle formation. 2-8 in center of circle. If anybody in circle is caught holding ball for more than count of two - he/she goes to center. Concentrate on speed and quickness. Nerf ball is good to use. Recommended for children ages 10-12.

K. Group Juggling
Circles of 6-8. Start one object on "go." Toss object to others in circle. Keys adding objects. Throwing patterns should develop. Recommended for children ages 10-12.

L. Find Your Mate
Players are given cards with the names of animals, insects, whatever. Two players have the same animal. On "go" players begin making "non-verbal" movements relating to that animal. Sooner or later everybody will be paired up. Recommended for ages 9-12.

M. Hand Baseball
Two players. Make a decision as to who bats first. Each player puts one hand behind his back. On "go" each player sticks his hand out with 1-5 fingers showing. Totals are then made for both players. Even numbers help the batter. Odd numbers help the pitcher. Runners must be forced to next base except on an out. Recommended for children ages 12-14.

Code for Hand Baseball

Even	Odd
2 fingers - walk	3 fingers - out
4 fingers - single	5 fingers - out
6 fingers - double	7 fingers - double play
8 fingers - triple	9 fingers - triple play
10 fingers - homerun	

VI. Cooperative Activities (Recommended for children ages 9-12, but can be modified for other ages.)

A. Tummy Ball - Three students advance ball using only their tummies. For distance or time.

B. Three Rear-Enders - Three students advance ball using only rears. For distance or time.

C. Sit, Throw and Catch - Nerf ball, like a hot potato. When one misses he/she must hum a tune. Can't stop humming until catching a second ball.

D. Dumbball Tag - One with a beanbag, one is "it." "It" is trying to catch one with beanbag. Other students pass beanbag at random.

E. Pass in Duck Relays - Players stand in line facing the leader about 5' away. The leader passes the ball to Player 1. Player 1 passes it back and leader passes to Player 2 as Player 1 ducks. Continue passing and ducking until all have caught and passed the ball.

F. Beanbag Grab - Two players sitting on floor facing each other. Beanbag is between the two players. On "go" each grab for the bag. Continue play, but adding routines. Ex. - hands on knees - on "go" clap hands, slap floor, grab for the beanbag. Many possible variations.

VI. Running and Tag Activities (Recommended for children ages 9-12, but can be modified for other ages.)

A. Find personal space. One half stays in personal space with one foot touching that spot at all times. Other one half starts running in and around general space. Ones who are in personal space try to tag ones who are running. When tagged, trade places.

B. All are moving in general space. The "its" are trying to tag other with a soft body part. Try hard body part, round body part.

C. Movers and followers. All are moving in general space. On signal, the followers start following the movers and must make same patterns. Can change at random or on signal.

D. Partners. One is "it." It tries to tag partner. See how long it takes to tag partner.

E. Two lines facing. As the lines get closer together, signal is given for one line to be the chasers. The other line tries to flee.

F. Place circles (or hoops) on floor. Its are in the circle. Others must move around going into and out of circles. Its try to tag other players as they move in and out of circles.

G. Crazy Walk Tag. All are "it" in crazy walk position. Crazy Walk--Start with R leg crossed over L leg. Now swing R leg around behind the L and then L leg around behind R. Continue to walk this way. Forward progress should be made on each step.

H. Half of group is it. Both groups must move differently on teacher commands. Ex. - Teacher calls run-walk. The ones who are not "it" can run--the its must walk. Movement changes can be made at random--positions are changed when tag is made.

I. Hoop tag for partners. Put hoop between partners and on signal each starts trying to tag the other. Can't go across the hoop. More points given for lower body tag than upper body tag. When one gets 10 points then they find a new partner.

All of the preceding activities have several things in common. These are that children must:

1. Think before moving throughout the activity.

2. Analyze certain phases of the activity in order to act upon it.

3. Relate to multiple variables required for successful participation.

4. Understand various relationships of movement to other variables (equipment, time, etc.).

5. Develop feelings about activity because of the various movements required for participation.

6. Develop a sense for the meaning of play because all the activities contain this element.

It is critical to remember that virtually all physical education activities for children have these qualities. It is up to the physical education teacher working with the students to assure that the maximum learning experience occurs in the quest for total development.

Relays, games and other activities for teaching sport related skills can be used effectively to promote total development in children. The following examples describe how the maximum learning experience may evolve from sport activities.

1. Jumping and Dribbling - Soccer

Each child has a ball. The drill is started with the ball placed on the floor in front of the child. The movements for this drill are:

a) Jump over ball - front to back.
b) Jump around ball - right side to front to left side and back behind it.
c) Place feet on either side of ball and pick it up with feet, place in hands. Once in the hands place back on floor. Do this four times.
d) Dribble the ball in some direction making eight instep kicks. Stop and do eight instep kicks in another direction.
e) Repeat the above movements for seven to eight minutes.

NOTE: Put emphasis on practicing like you play. Good opportunity for children to try their skills in a game like setting. The drill also accounts for individual differences in skill levels.

Once the drill is completed ask the students:

a) What happens to your skills when you're tired?
b) What is the importance of jumping in soccer?
c) What is the relationship of the instep kick to control?

2. Basketball Passing Drill

Form a double circle with children facing each other. The movement starts with the children passing a basketball back and forth to each other as they slide-step counter-clockwise. The circles are moving in opposite directions. Start with a chest pass using only one ball, then add another ball. The circles may change directions on the teacher's command. The object of the drill is to make good passes at the proper angle and not let the ball touch the floor for six to eight minutes.

NOTE: Put emphasis upon proper skill execution while moving. Can easily change to bounce passes or overhead passes and/or use a combination of passes together. Slide stepping is good for defensive skills (footwork). Stress control and quality.

Once the drill is completed ask the following questions:

a) Why is control and good skill execution difficult when moving?
b) What is the relationship of good fitness to skill execution?

c) Which pass is more difficult to make while moving? Why?
d) What is the relationship of angles to good passing?

Again, these activities are not necessarily new to physical education for children. The idea of getting the maximum benefits from the activity to enhance total development in children is important.