DOCUMENT RESUME

ED 207 314 EC 140 057

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TITLE	Movement Exploration as a Technique for Teaching Pre-Swimming Skills to Students with Developmental Delays.
INSTITUTION	American Alliance for Health, Physical Education, Recreation and Dance, Reston, Va. Information and Research Utilization Center.
PUB DATE	Dec 80
NOTE	25p.
AVAILABLE FROM	American Alliance for Health, Physical Education, Recreation and Dance, 1900 Association Dr., Reston, VA 22091 ($2.00).
JOURNAL CIT	Practical Pointers; v4 n8 Dec 1980
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Disabilities; Elementary Secondary Education; Motor Development; *Movement Education; Perceptual Motor Coordination; *Recreational Activities; *Swimming; Teaching Methods

ABSTRACT

Background, rationale, and techniques for using movement exploration to teach preswimming skills to developmentally delayed persons are given. Objectives (beyond the primary one of safety) of such a program include body awareness, spatial awareness, movement, and perceptual motor functions. Guidelins for activity selection and adaptation are given. The document concludes with descriptions of 42 tasks designed to promote breath control, balance, body awareness, movement, spatial awareness, manipulation, and sensory response. (CL)

PRACTICAL POINTERS

American Alliance for Health, Physical Education, Recreation and Dance
Physical Education and Recreation for the Handicapped Information and Research Utilization Center
1900 Association Drive,
Reston, VA 22091

Volume 4, Number 8
December 1980

MOVEMENT EXPLORATION AS A TECHNIQUE FOR TEACHING PRE-SWIMMING SKILLS TO STUDENTS WITH DEVELOPMENTAL DELAYS

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AAHPERD Publications • 1981 •
The American Alliance for Health, Physical Education, Recreation and Dance
1900 Association Drive, Reston, VA 22091

Stock Number: 245-26862

Acknowledgements

Movement education continues to be an effective method for teaching physical and motor skills to students with developmental delays. While movement education has been used in swimming pools as well as in gymnasia and on playgrounds, little specific and definitive have been written about its uses in aquatic environments. Information and materials on movement education for aquatic programs and activities can be found in several publications on adapted physical education and instructional swimming in general and for teaching mentally retarded students in particular. At least one publication deals in depth with applying movement education to aquatic programs and activities. However, all of these sources are rather general in their approaches to and applications of movement education to swimming.

This Practical Pointer on the other hand is developmentally approached. Activities are presented in terms of developmental levels, whether or not they are appropriate for non-ambulatory participants, and include ways to individualize and personalize activities and approaches according to each participant's needs, abilities, and disabilities. Values of each activity and an easy to use index add to practical and functional contributions of this publication. With this organizational approach activities presented can be used as means to reach goals and objectives related to pre-swimming and swimming skills as well as goals and objectives related to various perceptual-motor functions and traits.

For this excellent contribution based on their personal and professional experiences, thanks, appreciation, and gratitude are extended to Joyce M. Buis and Catherine S. Schane. Their teamwork and cooperation in collaborating on this Practical Pointer shows working together at its best. Each of the authors draws from her own background and experience to add to values and contributions of this Practical Pointer. Ladies, thanks and well done.

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Movement exploration offers exciting possibilities for adapted aquatics programs, particularly for individuals whose disabilities include poor development in perceptual-motor patterns and functions related to mastery of swimming skills. Not surprisingly, use of movement exploration for fostering fundamental movement abilities in water has received increasing attention over the last decade (American National Red Cross, 1977; Moran and Kalakian, 1977; Hackett, 1970); this approach is congruent with the growing humanistic movement in psychology and education.

In this Practical Pointer...

...reasons for using movement exploration in teaching beginners with developmental delays in swimming programs are given;

...appropriate objectives are listed;

...particular needs of students that can be met with this approach are explored; and

...specific activities illustrating how the technique can be used to help meet listed objectives and needs are described.

The term developmental delays is used in the broad sense to mean any mental or physical developmental level that is below what is normally seen in a person of like age, and that impairs an individual's functioning in some important ways. Mental retardation, emotional disturbances, and learning disabilities are conditions likely to be accompanied by delays in development; such delays can also be associated with cerebral palsy, sensory impairments, and a variety of other handicapping conditions.

Developmental delays accompanying or resulting from these disabling conditions can have several causes. Physical causes include objective results of trauma or inherited impairment, secondary weakening of other body systems, and time lost due to confinement. Psychological causes of delay include poor self-perceptions and unfavorable perceptions of others. Physical and attitudinal barriers in the environment can also delay development.

Short attention span, poor spatial awareness, and unusually awkward, ineffective movement skills are among the most obvious indicators of developmental delays. Other signs which point to delayed development are poor memory, need for frequent encouragement, weak self-identity, and poor body image. A student who consistently displays several of these characteristics and to considerable degrees may lack necessary basic movement skills for learning to swim. Such an individual can benefit from participating in types of activities presented.

Rationale

Rationale for using any method must include answers to three basic questions--

. Are program and/or activity objectives worthwhile?

. Is there specific need for action?

. Why use this approach?

Perhaps not every person needs to know how to swim, but every person needs to know how to move effectively. Movement is considered by some educators to be an excellent learning route to all behavioral domains (Feldenkrais, 1977, p. 15). One of four basic elements of the wakeful state of human behavior, movement exists in dynamic interaction with feelings, perceptions, and thoughts. These last three named processes, however, are internal. Only through some type of movement can we consciously express our feelings, respond to situations as we perceive them, and make others aware of our thoughts. Without movement we would be unable to act on our choices or achieve the slightest control over our lives. Physical educators understand readily how important fundamental movement education is to individuals whose development has been delayed.

But why swimming particularly? Swimming has all physical, psychological, and social benefits that vigorous movement activities have for anyone, plus some unique to itself. Competence or mastery over one's environment is an important human need according to humanistic psychology (Maslow, 1968). Competence in water may very well have greater benefits for self-concept than other kinds of mastery over physical environments because water is not Homosapiens' natural habitat. Relaxation is best aided by rhythmic, free-swinging movement, stretching, and improved breathing according to a report from the American Medical Association's Committee on Medical Aspects of Sports. Swimming provides all three and is extraordinarily beneficial in the last respect--improved breathing--because extra pressure exerted by water additionally strengthens respiratory functions. The popular attitude toward swimming, especially among young people, is that it is a cool sport, thus providing motivation for learning the skills. Swimming, unlike many sports learned in childhood and youth, is especially suitable and available as a lifetime recreational pursuit.

Swimming has even more pronounced rewards for individuals whose disabilities limit other forms of exercise. Cushioning effects of water provide support for weak limbs and break falls. Because gravity is not the problem it is on land, physical skills may be easier to perform in water, particularly for individuals with severe motor impairments. Water offers greater resistance to movement than air, so movements made in water result in stronger kinesthetic and proprioceptive feedback and a surer sense of where the body is and what it is doing. Added resistance also strengthens and tones muscles to relatively greater degrees than movements on land. Even muscles not actually used are benefitted by movement and pressure of water surrounding them. Finally, water literally as well as figuratively hides disabilities. When people are swimming, each moves independently though they are together, and it may not be readily apparent if some have impairments or disabilities.

A problem suggested here is that swimming is potentially very beneficial to many persons with disabilities, but that many of these individuals may not have fundamental movement abilities needed to learn skills required for safe, independent functioning in water. Movement exploration as an approach for teaching basic movement skills has three main activities...

...aids initial mental and physical adjustments to water;

...is effective in teaching desired skills; and

...has widely recognized psychological values beyond those implicit in successful experiences.

Movement exploration is a problem-solving or guided discovery technique. A challenge is presented -- "Move around in your (marked-off) space without going outside it."* A participant may respond by circling inside the periphery of the space, moving back and forth across it in an orderly way, walking, swimming, going backwards or sideward, moving rapidly or slowly. Any movement that does not cross boundaries of the designated space accomplishes the task that was presented. Whatever the challenge, every response is individual and none measured against a norm. The method is characterized by informal but carefully planned, progressive activities that involve participants in successful, non-competitive movement experiences.

Adjustment to an aquatic environment is made easier because participants are involved at their own levels and without pressure to perform. The playful attitude of this approach releases tensions and alleviates fear of failure. Inactivity is minimized and practice time increased.

Movement exploration allows some autonomy, some choice. Accomplishments therefore build self-esteem, confidence, and courage. Through greater self-acceptance an individual finds more acceptance in other areas, greater cooperation is fostered, and the positive spiral continues. Satisfying peer interactions increase rewards. The participant feels a sense of control resulting from increased competence, and self-concept is further improved.

Positive values of developing and applying a problem-solving approach to tasks,** other people, and life cannot be overemphasized. However, problem-solving is an enormously complex process. Although only a few values, usually based on skills important for swimming are listed for each activity presented, a participant's responses to movement-exploration tasks are always neuro-muscular patterns that include as a minimum...

...perception of a challenge;

...comprehension of its meaning;

...conceptualization of possible solutions and outcomes;

...choice of solutions;

...motor responses to choices; and

...evaluation of outcomes.

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* Avoid introducing problems with phrases such as "Can you" -- this can back teachers or leaders into a corner if a participant answers, "No!"

**Problem solving techniques and approaches can be used for many different purposes. To change focus, simply change emphasis or problems posed. Problem solving through movement exploration is a method, a technique, an approach -- not a goal or an objective.

Using the movement-exploration approach is not difficult, nor does it demand extensive technical knowledge. It does require a clear understanding of objectives, an appreciation of each student's needs, and a repertoire of activities that can be used for movement education.

Objectives

Safety, support, and skill are chief objectives of any swimming program. Safety must always come first--(1) safety of all involved while in a swimming program, and (2) teaching water-safety practices. A good aquatics leader wants to prevent any possibility of drowning, and avoid any trauma that might cause a participant to be more fearful in water or elsewhere. Support involves personal respect that a teacher gives a student as a right due another human being, plus nurturing one owes to anyone for whom he/she is responsible--efforts to develop, insofar as possible, each person's potential. Movement exploration, based on the theory that problem-solving aids growth more directly than rote learning, is compatible with both ideas of support.

Desired skill development is in psychomotor functions which underlie ability to control breathing, balance in water, use water for locomotion, and finally master more-advanced swimming techniques. Many basic movement skills needed to learn to swim are identified as values in Suggested Activities (pages 9 to 22). Other motor functions as well as many social and preacademic skills can be promoted by these activities, but are not listed. The following outline shows major perceptual-motor traits that suggested activities can foster and further.

Body Awareness

- Image - body parts, shapes, surfaces
- Functions - what the body does (see Movement, below)

Spatial Awareness

- Laterality/Directionality - right, left; up, down; forward, backward, sideward
- Pathways - straight, curved, zig-zag
- Levels - high, low, middle
- Relationships - over, under; in, out; around; together; beside

Movement

- Types of Movements
  - -- Axial movements* such as bending, stretching, twisting, pushing, pulling, kicking
  - -- Locomotor movements such as walking, running, jumping, hopping, climbing

*In swimming, normally axial (non-locomotor) movements such as pulling, pushing, and kicking become chief means of locomotion.

Qualities of Movements
- -- Timing - fast, slow; simultaneous, sequential
- -- Force - strong, weak
- -- Flow - continuous, interrupted

Perceptual-Motor Functions

- Breath Control - ability to hold breath and control exhalation in water
- Balance - using the body's buoyancy and properties of water to achieve stability in various positions
- Manipulation - controlled handling of objects through throwing, catching, hitting, turning, pushing, pulling
- Responding to sensory cues
  - -- Auditory - following directions; moving on signal
  - -- Visual - eye-hand coordination; eye-foot coordination; visual tracking (following a moving object with the eyes)

Special Needs

Myriad adaptations can be made to meet special needs of individuals having all types and severities of disabling conditions. The full range of applicability in adapted-aquatic activities is suggested in general requirements and typical techniques.

Needs of students with developmental delays are primarily the same as those of any student--acceptance and respect, attention to physical well-being, and opportunities to grow. In working with special populations, swimming instructors may have to adjust teaching methods to meet those needs. That is partly what is meant by adapted programing. For example--

- Students with large deficits in either motor or behavior control may require one-to-one aides while in water.
- A hyperkenetic child may also require one-to-one supervision.
- Students with severe physical impairments can be given independent mobility with inflatable swimsuits and other wearable flotation devices, but safety considerations demand constant companionship.
- Mentally retarded students may need assistance to overcome lack of communication skills. In many cases having one aide for every two or three mentally retarded students should be enough; the aide can repeat directions when needed and promote learning by encouraging student movements and verbal responses.
- Mentally retarded adults should be treated as adults--they don't play tea party even in water--although some individuals

can benefit from participating in selected activities that children do.*

The problem-solving approach used in movement exploration, together with the novelty of the aquatic environment, take boredom out of doing simple things. Many students with developmental delays can be served well with kinds of general adaptations described in the Suggested Activities section (pages 9 to 22). However other individuals have special needs that must be assessed by professionals responsible for overall education and treatment programs.

Activity Guidelines

A partial list of activities which can help develop or reinforce fundamental movement skills follows. These activities are preceded by information on how they are arranged and classified.

Descriptions of some activities include specific ways to vary called for basic movements, adding different elements of time, force, or distance to original problems. Some entries give directions for adaptations. These adaptations are suggestive only, for all activities can be varied and adapted, most in many different ways.

A progression of breath-control activities heads the list; remaining activities are given by levels in ascending order of breath control required for comfortable participation. Good breath control is essential to safety in water and for developing locomotor skills there. Every swimming period should include appropriate level breath-control activities. Control of balance and body position is the second most important aquatic skill, so several activities are suggested for its practice. Other problems concern body awareness, locomotion, qualities of movements, manipulation of objects, and other functions outlined previously (pages 6 and 7). Many activities are useful for improving perceptual traits basic to movement skills--visual, auditory, tactile, and kinesthetic.

Activities should be chosen and adapted as necessary to be...

...suited to each participant's level of breath control and adjustment to an aquatic environment;

...appropriate for developmental needs of students; and

...compatible with conditions of staff, place, time, and other resources.

Some aides should be in the water at all times to lend hands in recovering unexpectedly lost footings and reassure frightened participants. Even

*Logical and simple adaptations can make many children's activities appropriate for and appealing to adults. Changes can be in such things as approach, manner, terminology, name of the activity, music used. Do not insult an adult's intelligence, age, experience, maturity, or size by treating him/her as a child.

momentary submersion can cause panic in the uninitiated because breathing is shut off. Other important general considerations in programing include--

- Demonstrate what a word means, but don't show how a movement-exploration problem is solved. Evidence suggests that in terms of overall development, correction and formal guidance may be counterproductive at this stage (Laban, 1975, p. 20).
- Increase structure in some activities when needed for emotionally disturbed or learning disabled participants.
- Provide each mentally retarded or emotionally disturbed participant with his/her own equipment when manipulative skills are being developed.
- Start unfamiliar movements slowly; build up speed, vary force, and/or increase distance after a pattern becomes familiar.
- Increase time to build attention span; use favorite activities for this purpose.
- Verbalize frequently what students are doing, especially for individuals who are non-verbal.
- Encourage students to verbalize their own responses to reinforce conceptualization.
- Refer to previous activities briefly even when they are not to be repeated to fix learning and establish habit or recall.
- Play music with simple rhythmic patterns during activities to foster rhythmic ways of moving.
- Remember that safety of students is always an instructor's first responsibility.

Suggested Activities

Movement-exploration activities presented are in no way all inclusive--countless others are suitable for aquatic use; and many variations and adaptations can be found for those both named and unnamed in the following pages. Possibilities are virtually limitless because most movement activities can be adapted in some fashion to water.

This listing is designed as follows--

- The top line of each entry gives a Level number, type of Task, and information about its usefulness for Non-Ambulatory participants.
- Major skills or traits that may be enhanced by this activity follow; these are called Values.

- Description gives basic information for developing the activity.

- Any needed special Information, Precautions, Adaptations, and/or Variations are provided.

Definitions for several abbreviations and specific terms used in entries help in understanding the information. Unless otherwise designated, level to which an activity is assigned presupposes an ambulatory participant is unassisted and in water no deeper than chest-high.

- Level 1 includes activities involving little splashing of water and no locomotion in water more than waist-high.

- Level 2 denotes considerable possibilities for splashing, but has the same locomotor requirements as Level 1.

- Level 3 participants may move through water above waist-deep, but not more than chest-deep.

- Level 4 activities involve both splashing and locomotion in water up to chest-high.

- In Level 5, letting the nose and mouth go under water is either encouraged, invited, or likely to happen because of the nature of movements involved.

- Total submersion is planned or considered likely in Level 6 activities.

- A participant should have good breath control and moderately good balancing skills before being asked to do Level 5 and 6 tasks.

Conditions in a particular situation can raise or lower the level of an activity. For any participant in water more than chest-high, unassisted locomotion must be considered Level 5 or above. In water deeper than waist-high, an activity becomes at least Level 5 if it involves taking both feet off the bottom at the same time, e.g., jumping. Any Level 3 or 4 activities become Level 2 for a participant who is assisted.

NA in the first line of an entry means the activity is suitable as described for non-ambulatory participants who are able to hold on to a side or ladder or sit on steps. When an adaptation for non-ambulatory use is given at the end, or when a non-ambulatory participant can do the activity with assistance of an aide, designation is NA. A participant who is assisted always has a one-to-one aide at hand, even when no active help is being given. Participant is abbreviated in these entries as P, the plural being Ps.

Some general considerations for choosing, developing, and directing movement exploration exercises in water are listed in the section on Activity Guidelines (pages 8 to 9); these should be kept in mind when using the following activities.

	1	
Level 1	Breath Control Task	NA
Values	Controlled exhalation	
Description	Direct Ps to wet shoulders, arms, entire body up to neck; then blow on skin making each breath last a long time; have them wet skin again before each exhalation.	
Special Precaution	Watch for Ps who duck down without holding on to side or who lean over to blow into the water as near-complete submersion may cause loss of footing.	

	2	
Levels 1 and 2	Breath Control Task	NA
Values	Controlled exhalation	
Description	Challenge Ps to make ping-pong balls move on water surface by blowing on them, first through straws, then without straws.	
Special Precaution	Ps who stoop down to get mouth close to ball become less stable and can lose footing.	

	3	
Levels 1 and 2	Breath Control Task	NA
Values	Controlled exhalation Mental adjustment to exhaling into water	
Description	Have Ps make bubbles in cups or bowls of water by blowing through straws; then use straws to blow bubbles in pool water.	

	4	
Level 2	Breath Control Task	NA
Values	Breath-holding Manipulation of objects	
Description	Station Ps in water beside individual collections on deck of objects such as wash cloths, sponges, small plastic bowls, plastic cups; nonbreakable funnels, jug-showers; have Ps find all the different ways they can wet their faces.	
Special Information	Jug-showers can be made from plastic milk containers-cut out below the neck on one side to fill the jug; punch several holes in the bottom of the jug for a shower.	

5

Level 3	Breath Control Task	NA
Values	Repeated inhalation and controlled exhalation (rhythmic breathing) Locomotion Balance	
Description	Challenge Ps to blow ping-pong balls across pool without letting balls stop.	

6

Level 4	Breath Control Task	NA
Values	Exhalation in water Balance Locomotion	
Description	Have Ps get in a tight circle and make a nest of bubbles in the middle by blowing into water; next call for each P to make his/her own small nest.	

7

Level 5	Breath Control Task - Assisted	NA
Values	Breath-holding with face submerged Balancing body in horizontal position	
Description	Have each P place hands on aide's shoulders (aide is low in water) and let body float; make straight line with body; later, ask each P to get a breath without standing up.	

8

Levels 5 and 6	Breath Control Task	NA
Values	Rhythmic breathing Balance	
Description	Challenge Ps to go in and out of water in time to music.	
Special Information	Holding on to side of pool makes this a Level 5 activity; free-bobbing is Level 6.	

9

Level 6	Breath Control Task
Values	Breath-holding with face submerged

Values (cont'd)	Balance Responding to visual cues (eye-hand coordination)
Description	Challenge Ps to see how many objects they can pick up from pool bottom.
Special Information	Objects can be such things as smooth stones, pucks, weighted plastic flowers, plastic juice cans, and/or sinkable, nonbreakable toy animals.

Remaining activities are listed according to levels of breath-control required.

10

Level 1	Balance Task	NA
Values	Use of arms in maintaining balance Locomotion	
Description	Give Ps float-rods (barbells) and challenge them to walk around, make turns, back up, change levels, and do other movement tasks while holding on to the rod. Float-rods are excellent for developing a sense of how to use water for balance.	
Special Information	Some otherwise non-ambulatory persons find it possible to walk in chest-deep water with float-rods which are often effective in getting them started. A float-rod is made with two empty half-gallon plastic jugs stuck tightly on the ends of a broom handle.	

11

Level 1	Body Awareness Task	NA
Values	Body image Axial movement Quality of movement (timing)	
Description	Say to Ps, "Partners stand shoulder-to-shoulder--now stand shoulder-to-shoulder with your partner." "Stand shoulder-to-shoulder another way." "How about back-to-back?" "Hip-to-hip." "Arm-to-arm." "Nose-to-nose." After Ps have done a series of relationships two or three times, call them out double-time; then do a series that speeds up and slows down--let voice indicate speed.	
Adaptation	Non-ambulatory Ps may be assisted, hold on to wall or ladder, and/or have ambulatory Ps as partners.	

12

Level 1 — Movement Task

Values: Locomotion
Directionality
Quality of movement (timing)

Description: Challenge Ps to walk the pool wall; have them change directions, name directions in which they are going; have them go more slowly at one time, faster at another; walk up the wall and then down.

Special Precaution: Frequent rests may be needed, especially by Ps with weak arms.

Variation: This can be a children's game with Ps in a train, engine at its head and caboose at end.

13

Level 1 — Body Awareness Task — NA

Values: Use of body parts
Manipulation

Description: Ask Ps to find different ways to send their balloons from water up onto deck; no restrictions on method at first; then with one hand, both hands, no hands.

14

Level 1 — Spatial Awareness Task — NA

Values: Spatial relationships
Manipulation

Description: Tell Ps to find different ways to be close to their hoola hoops--behind, in front of, inside, outside, going around, under, on top.

15

Level 1 — Movement Task — NA

Values: Axial movements (pulling, pushing water to develop balance and locomotor [stroking] skills)
Quality of movement (timing, force)

Description: Have Ps pull water towards body; then push water away from body--with hands and arms; with feet and legs; from/in different directions; with different forces; at different speeds.

16

Level 1	Body Awareness Task	NA
Values	Body image	
Description	Two people make twin shapes--each partner in turn creates a shape for the other to copy.	

17

Level 1	Body Awareness Task	NA
Values	Use of body parts	
Description	Two Ps find different ways to hold a balloon between them, at first without restriction, then with qualifications such as with only one arm, no hands, no hands or arms, hands clasped behind you, hands on top of head, heads only, legs only.	

18

Levels 1 to 3	Spatial Awareness Task
Values	Spatial relationships (around) Pathway (curved) Locomotion
Description	Have Ps move from wall, out to and around a buoy or object on bottom of pool, and back to side; challenge Ps to find different ways of moving.
Special Information	A weighted traffic cone makes an attractive, easily visible object in the pool.

19

Level 2	Movement Task	NA
Values	Axial movement Quality of movement (force, timing) Body awareness	
Description	Say to Ps, "Be a funky chicken. Flap your wings like a chicken." Later tell Ps to flap only one wing, then the other; then add qualities of force and timing to vary movements.	

20

Level 2	Body Awareness Task	NA
Values	Body image	

Values (cont'd) Responding to auditory cues

Description Ask Ps to relate various body parts and name them with such questions and commands as, "What do you clap with?" "Hold them up." "Now put them together." "Put your hands on what you hear with." "What are your hands on?" "What do you point with?" "Use them to point to what you see with." "What are your fingers pointing at?" "What are your eyes in?" "Use your head to turn your eyes from side to side." "What do you smell with?" "Draw an imaginary circle with your nose."

Level 2 — 21 — Movement Task - Assisted — NA

Values Locomotion with arms
Balance

Description Have one P at a time hold on to lifeline; start from increasingly greater distances from side, and pull to side; challenge P to pull so that body is balanced above or beside rope and face stays above water.

Special Precautions. This is a worthwhile safety skill, but at this level any P trying it must have an aide at hand constantly. If, as is likely, the rope is near a sudden drop-off to deep water, anyone who is not a good deep-water swimmer must be assisted whenever this task is attempted.

Level 2 — 22 — Body Awareness Task — NA

Values Use of body parts
Quality of movement (force, timing)

Description Isolate body parts by naming them sequentially; have each P hold that part up, then put it in the water or touch it to the water in case of ear or tip of nose; later ask Ps to vary force and speed of movements.

Level 2 — 23 — Body Awareness Task — NA

Values Use of body parts
Quality of movement (force, timing)
Manipulation

Description — Give each P an easily handled, floatable object such as a medium-size rubber block; challenge P to find different ways to push the object under water, move the object through water, move water with the object.

24

Level 2 — Manipulation Task — NA

Values — Manipulation of object
Spatial awareness
Axial movement

Description — Give each P a hoola hoop; challenge Ps to make their hoola hoops do different things such as lie on the surface of the water, stand on their sides, circle some part of the body, go under the water, spin circles; ask Ps to make hoops go from one side of the body to the other to encourage twisting movements.

25

Level 3 — Movement Task

Values — Locomotion
Spatial awareness (straight, zig-zag pathways)
Responding to visual cues (eye-foot coordination)

Description — Use ladder placed on bottom of pool as an obstacle course; challenge Ps to step between rungs of the ladder without touching them, find different ways to travel the course; then direct them to do it straight, from side-to-side, backward, crossing the ladder at each rung.

26

Level 3 — Sensory Response Task

Values — Responding to visual cues (eye-foot coordination)
Balance
Directionality

Description — Challenge Ps to move along line painted (placed) on bottom of pool without stepping off line; challenge Ps to find another way to move along the line--backwards, sideward, cross over, giant steps, baby steps, heel-toe, scissor steps.

27

Level 3	Movement Task	NA
Values	Quality of movement (speed, force) Responding to tactile cues	
Description	Work with partners so that one P leads another across pool, then is challenged to lead partner in another way; partners switch roles; vary speed and/or force of movements.	
Special Precaution	Remind Ps always to latch on to someone else in non-hurtful ways.	

28

Level 3	Body Awareness Task	NA
Values	Body image Use of body parts Responding to visual cues (visual tracking) Quality of movement (force)	
Description	Give each P a balloon or beach ball; challenge each to tap his/her object into air with one hand, then the other; Ps later are asked to tap the balloon more than once before it hits the water; tap it without using the hands; tap it with head, elbow, shoulder, and other parts of the body in various combinations.	

29

Level 3	Spatial Awareness Task
Values	Directionality Locomotion
Description	Have Ps cross the pool facing the side they are headed towards (forward movement); then come back facing the side they are going away from (backward movement); challenge Ps to cross facing in still-different directions; ask, "What direction are you going when moving like that?"
Adaptations	Non-ambulatory Ps can be assisted or they can be individuals who call out directions in which they see others moving.

	30	
Level 3	Movement Task	NA
Values	Axial movement Manipulation	
Description	Give each P a balloon on a short string; ask Ps to find different ways of moving balloons over the water; have Ps name ways as they use them; aides can label movements for non-verbal Ps. Later direct Ps to make balloons move with different force and/or follow different pathways.	

	31	
Level 3	Movement Task	NA
Values	Axial movement Balance Manipulation Responding to visual cues (visual tracking)	
Description	Have P throw large ball into net; ask, "Did you use lifting (underhand) or pushing (overhand) throw?" Challenge P to do it the other way; then practice each method several times.	
Special Information	Net should be large and close to P when this is first attempted; distance can be increased as skills improve. Hoop resting between two chairs can substitute for net.	
Variation	Use small ball and one-hand throws.	

	32	
Level 3	Manipulation Task	NA
Values	Manipulation (pushing, pulling) Locomotor movement	
Description	Have pairs of Ps work together to find different ways of moving tires or hoola hoops across pool; ask them to verbalize what they do; one partner and then the other acts as leader.	

	33	
Level 3	Spatial Awareness Task	
Values	Spatial relationships Responding to visual cues (visual tracking)	

Description — Have Ps walk across pool in pairs with partners staying exactly beside each other all the way. While moving, ask Ps to say who is on the right, left, on which side the partner is; switch sides, repeat, and name positions again.

Variation — Use in front of and behind for spatial relationships. Ask, "Who's in front?" "Who's behind?".

34

Level 4 — Movement Task

Values — Locomotion
Balance

Description — Challenge Ps to move across the pool in as many different ways as they can find; name each way of moving as it is done; watch for and direct attention to hopping (pre-skipping) and skipping movements; music with strong four beat and simple rhythm is good for this activity.

35

Level 4 — Manipulation Task — NA

Values — Manipulation (throwing, catching, hitting)
Responding to visual cues (visual tracking, eye-hand coordination)

Description — Give each P a balloon or beach ball; challenge each P to "See how long you can make your balloon/ball stay in the air without touching the water." "Try tapping it back up instead of catching it."

36

Level 4 — Balance Task

Values — Balancing on one foot
Responding to visual cues (eye-foot coordination)
Spatial awareness (pathways--straight, curved)

Description — Have Ps move objects on bottom of pool without touching them with their hands; challenge Ps to push objects in straight lines, circles, triangles, squares, rectangles, zig-zag lines.

37

Level 5 — Movement Task

Values — Locomotion

Values (cont'd) Balance

Description Have each P step onto and off a low, weighted plastic stool placed on bottom of pool; then, step off with both feet at the same time; have Ps name different locomotor movements.

38

Level 5 — Movement Task

Values
Locomotion
Balance

Description Challenge Ps to move from wall to middle of pool on one foot, without letting the other foot touch the bottom; ask them to label movements; repeat on the other foot.

Special Information This difficult motor task is often easier to do in water than on land, so the activity is especially good to use.

39

Level 5 — Spatial Awareness Task — NA

Values
Directionality
Object relationships
Balance

Description Have two aides hold a float-rod or broomstick about six inches above the water; challenge each P to see how he/she can get under the rod.

Variations This can be a Level 4 activity if the rod is held farther above the water, or a Level 6 if the rod is on the surface.

40

Level 5 — Movement Task

Values
Locomotion
Balance
Directionality
Object relationship

Description Ask Ps to find all the ways they can go through hoola hoops which are held vertically, partly above and partly below the surface of the water.

41

Level 6	Balance Task - Assisted	NA
Values	Balance (pre-floating skill) Breath control	
Description	Challenge Ps to hold breath and try to fall down in the water; make body stay under for five seconds; sit on pool bottom; describe what happens when the body is submerged.	
Special Precaution	Each P must have an aide at hand when this activity is first attempted to help P recover to feet if necessary.	

42

Level 6	Balance Task - Assisted	NA
Values	Balance (floating skill) Breath control	
Description	Give these directions to Ps--"Hold breath and roll your body up into a ball. Let the water hold your body-ball for a moment."	
Special Precaution	Be certain each P has an aide at hand until it is clear that P can recover to feet unassisted.	

Index of Activities

Identified Value	Activity Number*
Axial movement	11, 15, 19, 24, 30, 31
Balance	5, 6, 7, 8, 9, 10, 21, 26, 31, 34, 36, 37, 38, 39, 40, 41, 42
Body awareness	19
Body image	11, 16, 20, 28
Breath holding	4, 7, 9, 41, 42
Controlled exhalation	1, 2, 3, 6
Directionality	12, 26, 29, 39, 40
Eye-foot coordination	25, 26, 36
Eye-hand coordination	9, 35
Force of movement	15, 19, 22, 23, 27, 28
Locomotor movement	5, 6, 10, 12, 18, 21, 25, 29, 32, 34, 37, 38, 40
Manipulation of objects	4, 13, 14, 23, 24, 30, 31, 32, 35
Object relationships	39, 40
Pathways	18, 25, 36
Responding to auditory cues	20
Responding to tactile cues	27
Rhythmic breathing	5, 8
Spatial relationships	14, 18, 24, 25, 33, 36, 39, 40
Timing of movement (speed)	11, 12, 15, 19, 22, 23, 27
Use of arms in maintaining balance	10
Use of body parts	13, 17, 22, 23, 28
Visual tracking	28, 31, 33, 35

*Refers to number above the name of each activity

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