Overview
This is the sixth of eight training modules in the Art to Heart Training Series. This module explores movement and dance concepts and strategies for using movement and dance activities to promote development of basic motor skills and early learning.

Workplace Outcomes
When you return to your workplace, you will be able to:
• provide opportunities for children to engage in movement and dance activities that will include planned movement exploration activities; integration of movement into non-movement curriculum activities (for example, story time); and spontaneous movement activities.
• help families and others understand the value of movement and dance experiences for young children.

Training Outcomes
By the end of the session, you will be able to:
• identify three types of fundamental motor skills and give an example of each.
• identify the three elements of movements and give an example of each.
• distinguish between movement exploration, creative dance/movement, and formal dance.
• explain how movement and dance experiences enhance learning.
• define and give an example of divergent problem solving.
• identify three strategies that will promote integration of movement and dance into the classroom.

Art to Heart Training Series
This training series was developed by KET (Kentucky Educational Television) and the University of Kentucky Human Development Institute. Funding for its development was provided by the Kentucky Department of Education using KIDS NOW funds from the proceeds of the Master Tobacco Settlement and by the W. Paul and Lucille Caudill Little Arts Endowment for KET.

Content developed by Nicki Patton Rowe, Human Development Institute, UK, with contributions by Vickie Bowman, Kim Buckner, Rena Hallam, Chris Kelley, and Nancy Newberry. Edited by Teresa Day and Ben Allen, with graphic design by Missy Miller, and Sara O’Keefe, and CD-ROM design by Dave Hamon, all of KET.

The Art to Heart: Early Childhood Creativity television series was produced by KET with support from the W. Paul and Lucille Caudill Little Arts Endowment for KET and the National Endowment for the Arts.
ABOUT

the Art to Heart Training Series

This training is one part of an eight-part training series based on an award-winning national public television series entitled Art to Heart: Early Childhood Creativity. The television series was produced by KET (Kentucky Educational Television) and has aired on PBS stations across the United States.

Art to Heart explores the importance of visual arts, music, dance, drama, and literature in the lives of infants, toddlers, and young children. There are eight half-hour programs in the series:

Program 1: Children's First Language
Program 2: Visual Arts
Program 3: Music
Program 4: Movement & Dance
Program 5: Drama & the Literary Arts
Program 6: The Artful Environment
Program 7: Arts for Learning
Program 8: Arts Everyday

Each program shows model activities in schools, child care centers, and homes and features interviews with researchers, teachers, parents, and other advocates of early arts activities.

This training module uses brief segments from the Art to Heart program on Movement and Dance. You may enjoy and benefit from watching the entire program and other programs in the series. Check the KET schedule for broadcast times on KET. The Art to Heart series can also be purchased on DVD.

To find out the broadcast schedule or about purchasing the series visit the web site www.ket.org/arttoheart. This web site includes a downloadable Viewing Guide and additional ideas and information.

Additional Uses for the Art to Heart DVD and Viewing Guide

Early childhood education programs could use the DVD and Viewing Guide to provide additional professional development opportunities for staff. For example:

• Use individual segments to initiate discussion during a staff meeting.
• Encourage staff to view segments using a laptop computer with DVD during naptime.
• Encourage families to check out the DVD and Viewing Guide to watch at home.
• Plan a parent meeting/training around one or more Art to Heart segments.

The Training Modules

The Art to Heart Training Series is designed for child care professionals and consists of eight training modules exploring the arts in early childhood. Modules provide a foundation of understanding of brain development and the connection of creative activities such as visual art, dance and movement, music, and drama to early learning.

Each of the eight training modules takes a hands-on, active approach giving early childhood educators an opportunity to explore...
different aspects of the arts and gain practical ideas for their classroom.

Module topics include:

Module 1: The Arts & Early Brain Development
An overview of the arts and the role the arts play in brain development. Participants gain a deeper understanding of brain development and the importance of teaching about the arts and through the arts.

Module 2: The Arts & Early Learning
An overview of the ways in which young children learn. Participants learn programming approaches to enhance young children’s learning about the arts.

Module 3: Visual Arts
An overview of visual arts in early learning and an exploration of the importance of scribbling and its relationship to reading and writing. Participants learn the stages of drawing and gain ideas for providing appropriate drawing materials.

Module 4: The Language of Visual Arts
An exploration of visual arts concepts and terminology. Participants learn how to talk to children about their artwork using terminology that will build children’s vocabulary and awareness of the elements of art.

Module 5: Music
An exploration of music and the role it plays in early learning. Participants learn how to build children’s vocabulary and awareness of musical concepts as well as ways to encourage exploration of sound through singing, listening, and playing with instruments.

Module 6: Movement and Dance
An exploration of movement and dance concepts and terminology. Participants learn how to use movement and dance activities to promote development of basic motor skills and early learning.

Module 7: Literacy and Drama
An overview of storytelling and drama and its role in early learning. Participants gain a deeper appreciation for socio-dramatic play and the role of narrative and text in supporting development. They also learn strategies to enhance dramatic play scenarios, link dramatic play with text, and enhance the reading of text to support literacy development.

Module 8: The Arts at Home
Designed for use with parents, this module shows ways to help parents learn how the arts stimulate brain development and to encourage arts activities in the home. Participants learn how to conduct one-hour parent workshops on practical ways parents can promote learning at home using the arts.
LEARNING TO MOVE

What Is Movement?
Write your definition of movement.

List some examples of movement activities for young children.

Video Segment: Value of Movement and Dance
You will watch a segment from the Art to Heart series. In it a variety of experts discuss the value and importance of movement and dance in early childhood. As you watch, listen for and note answers to the questions below.

What are the primary reasons identified for movement and dance activities during early childhood in this video segment?

What does the mind-body connection mean to you?

Which comment stands out most to you? Why?
Is Motor Development Being Left to Chance?

Many early childhood professionals are raising the alarm, questioning whether young children are being provided with sufficient opportunities to become skillful movers.

“It is unfortunate, however, that the motor development of young children is sometimes left to chance. Many preschool children in homes, agencies, centers, and schools participate in physical activities that are ‘unplanned’ and self-selected. While self-selected play is important for young children, so is movement instruction that has been planned, sequenced, and delivered by an informed teacher. Without planned instruction and teacher-directed opportunities, movement learning and the acquisition and improvement of motor skills is left to chance. To become skillful movers, young children need a foundation of carefully selected movement experiences.” (Carson, 2001)

“…There may be movement, but no education in movement. That is, children are allowed a period of free play, where they can choose what they would like to do, given the equipment, and provided space. Although the children do have fun and may benefit from the physical activity, there is no structured motor development and intentional learning.” (Gagen & Getchell, 2006)

“…More and more early childhood professionals say they have trouble fitting movement into the program because they’re too busy preparing children for academics.” (Pica, 2006)

“Why are more and more children having difficulty with basic movement skills and timing patterns? With a good experience base in the natural process of growing up, these basic skills should be in place by the time a child enters kindergarten. However, many children today do not seem to have enough motor development opportunities to promote the necessary basic skills, i.e., crawling, hopping, and skipping.” (Weikart, 1998)

Childhood obesity is quickly becoming a health crisis in the United States. According to movement specialist Rae Pica, almost 25% of preschoolers in the United States are overweight. While our tendency to “super size” our meals certainly contributes to the childhood obesity problem, Pica asserts that the bigger problem is that children aren’t moving enough.

Check out the resources below for more information about the need to promote physical fitness and reduce obesity among the children we care for:

Benefits of Movement: Research Findings

“Movement supports children’s social-emotional development. Movement is associated with higher self-esteem and self-confidence. Children who are physically competent/skilled tend to be well-liked by their peers. (Pica 2003)

A study of Head Start preschoolers found that an eight-week program in creative dance/movement resulted in increased social competence and improved behavior. (Lobo & Winstel, 2006)

Improvisational movement exploration was used to teach at-risk first-grade students to discover how sounds can combine into words. The students made shapes with their bodies to represent letters and letter combinations. This resulted in improved basic reading skills. The researchers suggest that “the development of linguistic abilities mirror the development of dance phrase making….dance can help children discover the music of language.” (Bradley, in Deasey, 2002)

Children who engage in daily physical activity have been shown to have higher academic achievement. (Pica, 2003)

Children who have opportunities to engage in meaningful movement activities during the preschool period are more likely to be active adults. (Garcia, 1994)

The most consistent finding in an analysis of seven dance-related research studies is that dance instruction promotes creative thinking. (Bradley, in Deasey, 2002)

According to researchers David L Gallahue and Frances Cleland, “Learning to move, through motor skill acquisition and physical fitness enhancement, and learning through movement, by developing social skills and cognitive concepts, are essential goals of a developmentally appropriate physical education program.” (Cited in Derri & Pachta, 2007, p38)
Exploring Fundamental Motor Skills

Brainstorm! What does each pair of movements below have in common?

crawl/walk__________________________________________________________________________

kick/catch__________________________________________________________________________

stretch/bend_________________________________________________________________________

Three Ways the Body Can Move

______________________ skills are needed for movement that involves ______________________ from one place to another. Examples include crawling and walking.

______________________ skills are needed for movement that occurs while the body remains ______________________ (in one place). Examples include stretching and bending.

______________________ skills are needed for movement involving ______________________ and handling. Examples include kicking and catching.
### Fundamental Motor Skills

**Locomotor skills**
(Traveling)

- climbing
- creeping
- crawling
- galloping
- hopping
- jumping
- leaping
- running
- skipping
- sliding
- swinging
- walking

**Nonlocomotor Skills**
(Stationary, balance, stability)

- balancing
- bending
- curling
- dodging
- shaking
- sinking
- sitting
- spinning
- swinging
- stretching
- turning
- twisting

**Manipulative Skills**
(Object control and handling)

- bouncing a ball
- catching a ball
- dribbling a ball
- kicking a ball
- punting a ball
- rolling a ball
- striking a ball with a bat
- throwing a ball
- trapping a ball

### Move Like the Animals Move

**Locomotor movements**
- kangaroo jumping
- frog or rabbit hopping
- horse galloping
- snake slithering (or crawling)
- worm wiggling
- monkey swinging
- bird flying

**Nonlocomotor movements**
- squirrel or chipmunk picking nuts up off the ground (bending)
- giraffe eating leaves at the top of a tree (stretching)
- cat curling up for a nap
- dog shaking water off his fur
- Elephant swinging his trunk
# Exploring Elements of Movement

<table>
<thead>
<tr>
<th>Terms</th>
<th>Descriptive Words</th>
<th>Ways to Explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force the amount of muscular effort and muscular energy used to start, sustain, or stop a movement</td>
<td>heavy/strong; light/soft; sharp/smooth</td>
<td>How lightly can you hop? How would you walk if the wind was really strong? How could you move a heavy box without using your hands? What movements would be very sharp? (e.g., hitting a drum, kicking a ball) What movements would be very smooth? (e.g., clouds floating, skating)</td>
</tr>
<tr>
<td>Time the tempo (speed), beat (pulse), and duration (length of time) of a movement</td>
<td>tempo: fast, quick, slow, gradual, sudden beat: steady, irregular duration: short, long</td>
<td>How could you move your feet fast without leaving your space? What parts of your body could you swing very slowly?</td>
</tr>
<tr>
<td>Space the area occupied by the moving body. This element can be broken down into 4 components:</td>
<td>wide, thin, twisted, big, little, small, tall, circle, ball, square, triangle forward, backward, sideways, up, down, left, right, front, back, side straight, curved, zigzag high, medium, low</td>
<td>How small can you make yourself? How tall? How many ways can you make a circle with your hands? With your body? With a partner? Can you bend your body forward? Can you bend it sideways? How many directions can you shake your foot in? Can you find two ways to move sideways on the balance beam (or rope)? Can you slither in a curvy line? How many ways can you move in a zigzag line without touching or getting in anyone else’s space? Raise your body as high as it will go. Now make your body go as low as it can go.</td>
</tr>
<tr>
<td><em>Shape of the body while moving</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Direction of the movement</em></td>
<td></td>
<td></td>
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<tr>
<td><em>Pathway, or pattern of movement made by the body as it moves</em></td>
<td></td>
<td></td>
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<tr>
<td><em>Level, or height of the body from the floor</em></td>
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<td></td>
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</tbody>
</table>
Dance

Videos: Born to Move-Ballet Babies
You are going to watch a segment from the Art to Heart series on ballet for young children. As you watch, take notes on the following questions.

Should young children take dance lessons? _____________________________________________
________________________________________________________________________________

How does COCA use knowledge about child development to structure the content of the ballet classes? Why does COCA do this?
________________________________________________________________________________
________________________________________________________________________________

After Watching
Reflect on these questions:
Does this segment offer information that can be applied to other types of lessons and physical activities? ______________________________________________________________________
________________________________________________________________________________

Do you think other physical activities (such as sports, gymnastics, etc.) are similar to ballet in terms of drawbacks and physical risks if children begin too early? ______________________________________________________________________
________________________________________________________________________________
Movement/Dance Continuum

______________________ exploration: movement activities that focus on different ways to move the body.

For example:

How slow can you glide across the room?

How many ways can you shake your body?

______________________ dance/movement: movement activities that use movement to express ideas and feelings, to communicate. For example:

How could you make your body look like a ball?

What would it look like if your body was “popping corn?”

______________________ : movement activities that are very structured, usually requires learning specific steps, routines. For example:

ballet, tap, folk dancing

In her article Fostering Creativity in Movement and Music Learning Centers Rae Pica gives this advice to teachers:

“Encourage children to find more than one answer to every challenge. Start...with invitations to ‘Find another way...’ or ‘Find two different ways to...’ Once the children are comfortable with this approach, and developmentally ready, issue the broader question: ‘How many was can you find to...?’”

Video Segments:

Culture Afoot: Mexican Hat Dance and African Dance Class

As you watch the two video segments from Art to Heart, listen for answers to these questions:

What do children learn in each activity? ________________________________________________
________________________________________________________________________________

How do they benefit?_______________________________________________________________
________________________________________________________________________________

Why would young children be interested in dances like these?
________________________________________________________________________________
_______________________________________________________________________________

Examples of locomotor and nonlocomotor movements include:______________________________
________________________________________________________________________________
**MOVING ENHANCES LEARNING**

Movement ______________________ the brain, creating more synaptic connections, which increases a child’s capacity to learn.

Movement improves ______________________ functioning by:

- sending more oxygen and glucose to the brain (brain fuel)
- balancing brain chemicals and hormones
- boosting neuron ability to communicate (Blaydes, 2002-2007)

Movement “turns the brain on” by activating key ______________________ processes.

“In a nutshell, the part of the brain that processes movement is the same part of the brain that processes learning.”

*Eric Jensen, former teacher and author of numerous books on brain research and education*

**For More Information on Learning and the Brain**

- Eric Jensen’s book *Arts with the Brain in Mind* (2001, Association for Supervision and Curriculum Development, Alexandria, VA) is a review of research.
- Movement expert Rae Pica has numerous articles at her web site Moving and Learning [www.movingandlearning.com](http://www.movingandlearning.com). Under the list of articles, two to look for in particular are “Movements and Infants” and “More Movement, Smarter Kids.”

**Become a Movement Advocate**

Key Talking Points: __________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

____________________________________________________________

“In a nutshell, the part of the brain that processes movement is the same part of the brain that processes learning.”

*Eric Jensen, former teacher and author of numerous books on brain research and education*
Video: Motor Skills 101

You are going to watch a video segment from Art to Heart in which movement expert Rae Pica works with a group of young children on movement exploration. As you watch, use this space to take notes.

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

In particular, listen for answers to these questions:

1. What is the difference between “divergent problem solving” and “convergent problem solving”?
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

2. Which is more appropriate for young children?
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

Movement Education

The approach Rae Pica used in the video segment Movement 10 is called “movement education.” Characteristics of movement education include:

• Content focus is on the development of fundamental movements and movement concepts (elements of movement).

• Primary teaching strategies include exploration and divergent problem solving.
Before integrating movement and dance into your classroom, become familiar with state and national movement and dance standards

• Kentucky Early Childhood Standards: A part of the Building A Strong Foundation for School Success series, these standards were developed to provide a common framework for understanding what young children should know and be able to do during the early years of birth through age 4. These standards can be found online at www.kidsnow.ky.gov.

• National Dance Education Organization (NDEO): NDEO is a non-profit organization dedicated to promoting standards of excellence in dance education. NDEO has created three sets of standards, including standards for Dance in Early Childhood. The standards, along with additional information on research and resources, can be found online at the NDEO web site www.ndeo.org.

• National Association for Sport and Physical Education (NASPE): NASPE has developed Premises of Quality Movement Programs, physical education practices recommended as being in the best interest of children. They include guidelines for curriculum design, learning experiences, fitness activities, fitness testing, assessment, and participation levels. The guidelines are offered for ages 3-5 and elementary, as well as higher grade levels. You can access these guidelines through the web site of American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD), of which NASPE is a part www.aahperd.org/aahperd.

Use these strategies to integrate movement and dance activities throughout the day:

1. Plan movement exploration and creative dance/movement experiences that are specifically designed to promote development of motor skills.

2. Integrate movement into non-movement activities.
   Pica reminds us that children “acquire knowledge experientially” and “retain more information when it is introduced through multiple senses” (1997, p. 9)

3. Take advantage of spontaneous opportunities.
   Ask yourself, “Can this concept, object, creature, or feeling we are talking, reading, or singing about be acted out with movement?” (Rodger, 1996, 4.)

4. Use the language of movement to describe children’s movements. This will build their vocabulary and make abstract concepts more concrete.
Movement and Dance Activities Throughout the Day

- As you talk to babies or toddlers, point to and name body parts. Describe your movements and the child’s movements.
- Use characters and events in stories to inspire movement.
- Encourage toddlers and older children to develop body and movement awareness by making a game of it. Ask, “How many ways can you move your arms (legs, etc.)?” Practice both locomotor and nonlocomotor movements. Be sure to include cross-lateral movements—movements that require crossing the midline of the body (such as patting a knee with an opposite hand). They’re important because they stimulate communication between the two hemispheres of the brain.
- Play games like “Copy Cat,” in which you and the children take turns mimicking each other’s movements. In a group, children can play in a circle, with everyone mimicking the movement chosen by a child in the center.
- Play a variety of music. Encourage children to move using scarves, crepe streamers, or hoops. Encourage them to vary the shapes, directions, tempos, and forces of their movements.
- Research holidays and special occasions that provide opportunities to enjoy dances and music from other cultures. Look for opportunities to bring teaching artists or parents into your program to teach cultural dances.
- With older preschoolers, play “Can you…” games. Try a variety of levels, shapes, directions, and tempos. For example: “Can you…
  …pretend to be a kite flying high in the sky?
  …swim like a whale?
  …jump like a frog?
  …pretend to be leaves falling from a tree in a big wind?
  …rain falling from the sky?
  …make your body look like a table?
  …look like a beach ball? A baseball?
  …quietly creep and crawl like a spider?
  …dance through the air like a butterfly?
  …move heavily like an elephant?

- Add books about dance to your book area.
- Add pictures of different kinds of dancing/dancers to your music and/or movement learning centers.
- Check out the articles “10 Reasons to Promote Emergent Literacy Through Movement & Active Learning” and “Linking Literacy and Movement” at Rae Pica’s Moving and Learning web site www.movingandlearning.com.

Integrate Movement into Non-Movement Activities

Science
• Encourage children to move to represent concepts in science. For example, to accompany a lesson in which children plant seeds, have them pretend to be seeds, planted in the ground, then sprouting and growing. Ask them to move as they might when they feel sunshine or rain or if they aren’t watered.
• Divide older children into groups to create movement sequences about the water cycle, different types of clouds, or other weather activity.
• Have children move as if they are various animals. Encourage them to use the elements of movement in varied ways-to incorporate a variety of shapes, levels, and pathways into their movements. (Note: don’t ask them to “be a…” Instead, ask them to “move like a…” Using imagery is better than “pretending to be.” Have students explore many movement possibilities for the same image.

Math
• Explore the concept of numbers through singing games that add or take away players (such as “The Farmer in the Dell”).
• Explore patterns through locomotor and nonlocomotor movements and the elements of dance such as direction and level. For example, have children hop forward three times, walk sideways two steps, or stretch high three times, stretch low two times.

Music/Circle Time
Sing songs that introduce elements of movement, such as “Head, Shoulders, Knees and Toes,” “I’m a Little Teapot,” “Itsy Bitsy Spider,” “The Hokey Pokey,” and ‘Wheels on the Bus.”

Language/Literacy
• Help children learn the shapes of letters by making the shapes with their bodies. They could do this standing up and using their arms and legs to form the lines and curves of letters or they could lie down on the ground and form the letter. Two or three children could work together to make letter shapes.
• Help children learn letters by thinking of the pathways used in printing. All letters are formed by straight, curved, or zigzag lines. Encourage children to trace those pathways with different parts of their bodies, such as their elbows or the top of their heads. Let them create pathways with their feet and walk the shape of a letter.
• Reading (and writing) involves going from the top to the bottom of a page. This activity provides practice with the experience of moving in a downward direction. The more children physically experience directionality, the more it is imprinted on their bodies and in their minds.
• With older children, read a story with movement potential and have them work in groups to in creative movement activities, creating movement sequences that reflect the characters and the story. Do not ask them to “act out” the story, but, rather, to move in the manner of a character or characters and to move as that character might have felt at certain points in the plot. Encourage them to use varied elements of dance in their movements.


Take Advantage of Spontaneous Opportunities for Movement
• As children move in and out of the classroom, have them move in different ways. For example, have them explore different ways of walking to the library by altering an element of movement, e.g., changing the shape by taking really small or really big steps, changing direction by walking sideways, or changing level by walking on tiptoes.
• Offer stretch/movement “breaks” between other lessons or activities. This will help to get blood flowing and minds awake.

Use the Language of Movement
Make a poster that includes examples of locomotor, nonlocomotor, and manipulative skills as well as words that you can use to describe force, time, and space. Post it on the wall in your classroom and use as a reminder to use the language of movement.
RESOURCES
for Movement Curriculum and Activity Ideas

Books


*Wiggle, Giggle, & Shake: 200 Ways to Move & Learn* by Rae Pica. Gryphon House, 2001. Note: Pica has written numerous other books relating to movement and learning, including some relating to integrating movement into other subject areas.

Online

Moving and Learning web site [www.movingandlearning.com](http://www.movingandlearning.com) is movement expert Rae Pica’s web site. The site includes numerous ideas and articles as well as information about Pica’s books and CDs.

PE Central web site [www.pecentral.org](http://www.pecentral.org) has numerous lesson plans. The link to the preschool lesson plans is [www.pecentral.org/lessonideas/searchresults.asp?category=50](http://www.pecentral.org/lessonideas/searchresults.asp?category=50).


The Center for Weight and Health, part of the College of Natural Resources, University of California, Berkeley, web site has a guide called *Children on the Move - Physical Activity for Early Childhood* with activity and equipment ideas. Access the guide at [www.cnr.berkeley.edu/cwh/PDFs/Kimbrell.pdf](http://www.cnr.berkeley.edu/cwh/PDFs/Kimbrell.pdf).
Action Plan

1. Identify two or three things you want to begin doing differently or want to begin doing as a result of this training.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2. Identify two or three key points you want to share with a co-worker.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
References for This Training Module


