

## Content Specific Pedagogy for Effective Teaching in Educational Gymnastics

by Lynda M. Nilges

Educational gymnastics provides a developmentally appropriate approach to teaching gymnastics when varied ability groups exist and teachers wish to meet the needs of all students (Nilges, 2000). Many of the outcomes the National Association for Sport and Physical Education (1995) outlines for contemporary physical education programs (e.g., movement competency, responsible personal and social behavior, respect for movement preferences and differences, and the application of movement concepts) can be attained through educational gymnastics content. Teachers, however, often do not have an extensive background in the content specific pedagogy necessary to successfully engage students

high levels of learning and performance in the educational gymnastics setting. Content specific pedagogy suggests that teachers must not rely on an unchanging set of teaching skills but rather learn to modify and adapt their teaching skills to different situations and contexts (Rink, 1998). Without knowledge of content specific pedagogy, Logsdon and colleagues (1984) claim that many teachers fail to move children beyond "mat groveling" or unrefined exploratory work when teaching educational gymnastics. This article, therefore, focuses on the content specific pedagogy needed to effectively teach educational gymnastics. Five pedagogical strategies will be discussed relative to their use in an educational gymnastics setting characterized by indirect teaching.

Before considering pedagogical issues related to teaching educational gymnastics, some discussion of teaching style is necessary. In traditional gymnastics, learners are asked to repeat ideas and perform and practice as told. This typically results in identical outcomes for all students. For example, in a traditional gymnastics class, all students might be asked to perform a forward roll or a cartwheel. Outcomes in educational gymnastics, however, support the developmental level of the individual student and promote critical thinking and problem solving. For example, students might find multiple ways to roll with a wide body shape or be asked to combine a traveling action with a roll while moving over or under a piece of equipment (see Nilges, 1997, 1999, 2000 for an extensive discussion of content development). When presenting open-ended tasks, the

teacher first identifies the parameters of the task and then invites learners to discover and refine actions that "fit" the parameters. Thus, multiple correct solutions are likely to arise given the varying level of skill and cognitive maturity across a group of students.

It is vital to recognize the relationship between multiple "correct" solutions as a valued outcome of educational gymnastics and the actions of the teacher during a lesson. If students are to produce options within the subject matter, teachers must assume the role of a facilitator, and instruction needs to be primarily indirect or delivered in a way that transfers responsibility and decision making to the learner. It follows that students must be pedagogically supported in their attempt to produce and refine movement in a manner different from a direct teaching setting.

### Content Specific Pedagogy for Educational Gymnastics

Pedagogical skills related to establishing an environment for learning, sequencing content, refining student performance, demonstration, and questioning need to be carefully attended to in an educational gymnastics lesson if students are to successfully produce and discover options in a content area characterized by indirect teaching. These pedagogical skills are discussed relative to their content specific use in an educational gymnastics program.

#### Establishing an Environment for Learning

In any physical education lesson, an environment that is conducive to learning is necessary for efficient use of time, student safety, and success. Given the nature of educational gymnastics content, certain rules and routines need to be established with students. These rules and routines are content specific and should be taught to younger students and reviewed with older students prior to gymnastics activity. Failing to establish content specific rules and routines will result in management difficulties because students are not aware of how to handle everyday tasks and events. Sample content specific rules and routines that need to be established with students are discussed next.

If students are to remove their shoes for gymnastics activity, a routine for handling this activity must be taught and practiced. Shoes should be placed with heels to a designated wall with the left shoe and right shoe placed accordingly. Consistently placing shoes by a predetermined wall helps to eliminate safety concerns from shoes scattered about the gym. In addition, placing left and right shoes accordingly helps students quickly get their shoes back on the correct feet at the end of the lesson.

Other lesson-related routines that are needed for educational gymnastics include routines for (a) moving from one mat or piece of equipment to another, (b) handling/moving equipment, and (c) safely stopping activity on signal (Nilges & Lathrop, 2000). Students should be taught to move

about the gym using open floor space rather than space occupied by mats or equipment. This better assures that a student moving to a new work space will not interfere with a student using a given mat or piece of equipment. In addition, proper lifting techniques should be taught and practiced before students are asked to move or handle equipment (e.g., work with a partner or in groups, lift with the legs, keep the back straight and face forward while walking). If students are asked to assist in setting up the workspace, they should be taught that mats should not overlap or be placed too close to walls based on the momentum of the skill(s) that will be worked on. Finally, it is recommended that a signal of "pause" or "all rest" be established for managing the learning environment in a gymnastics setting because such terms imply a gradually slowing of the body. In a gymnastics setting, where most skills can't be immediately arrested, a verbal signal of "stop" can be dangerous.

### Sequencing Content: The Role of Intratask Development

The ability to sequence content from simple to complex has been shown to facilitate learning (Rink, 1998). Most teachers agree that students need to develop individual skills and strategies before engaging in game play or modified game play. In educational gymnastics, however, failing to engage students adequately in skill work prior to tasks that require combining and sequencing skills is a common pedagogical error. Without a broad repertoire of individual skills, the quality of more advanced sequence work suffers because the number of options a student has available to draw from is limited.

The initial stage of learning in educational gymnastics involves exploring and varying four foundational skills (see Nilges, 1997, 1999, 2000). The foundational skills include rolling actions (weight transfer over adjacent body parts as in a forward roll), step-like actions (weight transfer across nonadjacent body parts as in a cartwheel), flight actions (weight transfer involving loss of contact with a supporting surface as in jumping and landing), and balance (holding the body in stillness over the smallest base possible as in a headstand). Within this initial stage, students should learn to vary each foundational skill using a wide array of movement concepts and practice conditions. For example, students might work on varying a roll based on its speed (fast, slow), shape (wide, narrow), relationship to equipment (on top of or moving over/under a piece of equipment), or the type of equipment used (individual mats, bench, vaulting box). This type of variety is encouraged through a progression of experiences that relate to a single movement skill or idea such as rolling or balance. Rink (1998) refers to this as intratask content development.

Effective intratask development can not be rushed through in a lesson and requires knowledge of the movement framework. Without adequate intratask development, teachers may inadvertently limit the movement repertoire of students. For example, if students are not challenged beyond finding several ways to roll, they are not likely to recognize the many possibilities for rolling that can be created when various concepts from the body, space, effort, and/or relationship aspect of the movement framework are explicitly considered. Therefore, intratask development is a critical pedagogical skill for developing variety and assessing

alternatives in the early stages of educational gymnastics. Without extensive intratask content development, the gymnastics work is likely to be unimpressive because students have not worked with a range of alternatives for each foundational skill. Table 1 offers two initial tasks and sample options for intratask development. Notice that intratask development in these examples focuses on movement concepts and varying practice conditions by manipulating the equipment and people.

### Refining Skill

Refining tasks are used to improve the quality of student performance (Parson, 1998; Seidentop, 1991). Educational gymnastics provides a unique challenge for teachers who are interested in developing proficient movement. If skill level is to be effectively refined, two questions should be considered. First, what should a teacher look for after a task has been presented? Second, how does the focus of refinement change as students move from individual skill development to combining skills and sequencing skills?

When refining skill in educational gymnastics, teachers must look past the individual variations students select and focus on the "generic" elements of the movement task. In the early stages of educational gymnastics, for example, students might work on balancing at high and low levels. In this task, the ideas of balance and level are the generic parts of the task and should be the focus of refinement. A teacher may refine the balances for stillness or extension of the free body parts. The concept of levels might be refined by focusing students on checking the height of their highest body part in order to see if a balance they design falls within a given level. Given the open-ended nature of educational gymnastics, refining tasks such as these allow skill proficiency to be developed around multiple correct responses.

It is also critical to recognize that the focus of refinement should shift during the later stages from how to do a particular foundational skill (e.g., balance, flight, step-like actions, or rolling) to how to use these skills in an increasingly aesthetic manner. As skills are combined and sequenced, refinement

**TABLE 1—Intratask Development**

#### **TASK 1—Jump off a bench and land softly**

- Jump for height
- Jump for distance
- Jump and make a shape in the air
- Jump and turn in the air
- Jump, land and immediately jump again
- Jump, land and immediately roll

#### **TASK 2—Balance on a variety of large and small body parts**

- Balance on four body parts, reduce to a balance on three body parts
- Balance in an inverted position on three body parts
- Balance with symmetrical and asymmetrical shapes using small body parts only
- Travel into and out of a balance using two different locomotor skills
- Balance on three body parts while partially supported by a piece of small equipment
- Create a matching balance alongside a partner using small and large body parts

should gradually begin to shift toward the performance dimension. The performance dimension contributes to how a performance looks and feels. For example, it is important that teachers refine areas of the performance aspect such as continuity, controlling muscle tension, careful placement of free body parts, a clear beginning and end to the performance, and the ability to practice a combination or sequence unchanged until it is perfected. Refinements such as these extend beyond individual skills and help students to develop the effortless look that characterizes high-level gymnastics sequences. (See Nilges, 1999, for an extensive discussion of skill refinement in educational gymnastics.)

## Demonstration

Demonstration is a vital component of effective task presentation. Demonstrations visually communicate tasks to students. Given the multiple outcomes that are desired in educational gymnastics, demonstrations need to be carefully handled to assure that students do not simply copy what has been demonstrated. For example, if a task was given to a group of students to link a balance and roll together using a smooth transition (i.e., linking skill), the teacher should demonstrate multiple ways that this task might be accomplished. The teacher may elect to show one option while selecting a student in the class to demonstrate another option for fulfilling the task. If a student is not available, the teacher might demonstrate one option and then ask students to verbally identify a variety of ways. In an indirect teaching setting, it is critical to continually remind students that variety and uniqueness are highly desired. Demonstrations could provide an idea of the kind of responses that are appropriate to a given task. Students should be encouraged to develop their own ideas rather than copy what has been demonstrated.

When demonstrating in an educational gymnastics lesson, it is also critical that the parameters of the movement task are clarified with students. From the previous example, students might be asked to focus generally on the type of balance, roll, or transitional movement used in a demonstration or more specifically on how a concept such as direction or pathway is employed. Teacher questioning after a demonstration that focuses on the conceptual and/or component parts of an educational gymnastics task should assist students in developing their own responses around a framework that is understood by all.

## Questioning

In most cases, teachers use questioning to get feedback from students about whether or not they understand what they have been asked to do. In the educational gymnastics setting, however, questioning plays an important role in not only checking for comprehension of the movement task but also facilitating the problem-solving process. Effective questioning in educational gymnastics is multifaceted and should include questions that (a) check for comprehension of major concepts, (b) enhance the variety of student work, and (c) enhance the quality of student work.

Because educational gymnastics content is typically developed around movement concepts (e.g., levels, pathways, symmetry, etc.), the critical features of each concept must be taught. Questions that help students develop an idea of what a concept "is" or "is not" provide a

cognitive base for designing movement responses. Assume that the concept of symmetry is being taught. Questions such as "If I'm balancing symmetrically does each side of my body look the same or different?" or "Name two things in the room that have a symmetrical shape" reinforce the critical features of the concept of symmetry.

Questions designed to enhance variety of student response should also be used when teaching educational gymnastics. The purpose this type of question is to encourage students to explore options that have not been considered. For example, students might be working on creating matching balances with a partner. After an initial period of problem solving, the teacher might challenge different partnerships to begin to consider new variations. Questions such as "Is there an inverted balance that you can match?" or "What would happen if you reduced the size of your base of support from 4 body parts to 3 body parts and tried to match?"

Questioning that appropriately increases variety requires careful observation and knowledge of the skill level of the student or group of students being addressed.

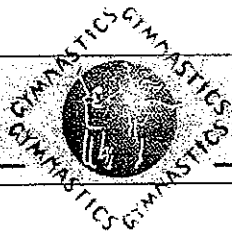
Questions designed to enhance the quality of student work serve to focus student attention on areas of his/her work that need refining. For example, a teacher may ask questions such as "Did your feet land softly?" or "Were your legs fully extended after takeoff?" to increase the quality in a jumping and landing task. Questioning to increase quality of performance requires knowledge of the critical components and relates to the refinement dimension of content development.

## Conclusion

Pedagogical skills related to establishing an environment for learning, sequencing content, refining student performance, demonstration, and questioning must be applied differently, depending on the content area being taught. The article provides pedagogical considerations for teaching educational gymnastics. For students to successfully produce and discover options in a content area such as educational gymnastics that is characterized by indirect teaching, it is important that teachers adjust their pedagogical strategies accordingly. As Rink (1998) suggests, effective teachers who are truly interested in promoting learning must not rely on a set of unchanging teaching skills but rather learn to modify and adapt their teaching skills to different situations and contexts.

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# Gymnastics

## Eleven Safety Tips for Educational Gymnastics

by Lynda M. Nilges and Anna H. Lathrop

Concerns related to safety often lead teachers to eliminate gymnastics from the curriculum. In their popular textbook, *Children Moving* (1998), Graham, Holt/Hale, and Parker suggest that when the focus is on educational gymnastics and experiences are presented sequentially and in an appropriate manner, gymnastics is no more dangerous than other physical education activities. To ensure that educational gymnastics is safely presented, please review the following eleven safety tips.

**Establishing Protocols.** Make sure that protocols for appropriate behavior in the educational gymnastics setting are established. Children should be responsive to cues such as "please rest," or "stop." A word such as "rest" may be more appropriate in the gymnastics setting because it implies a gradual slowing of the body. Many gymnastics actions can't be stopped instantly. Daring others or off task behavior should be discouraged. Noise level should be carefully monitored to allow students to concentrate on the body. Finally, protocols should be established for how many children are allowed on a mat or a piece of equipment at a time and what constitutes a safe distance while waiting a turn.

**Safety Rolls.** Children should be taught to regain balance and equilibrium by continuing to move in the direction of the weight of the body. Safety rolls (i.e., the body is rounded and weight is quickly transferred from the feet to other body parts and then back to the feet) are often a natural way to achieve this. Make sure children understand the purpose of safety rolls and have practiced safety rolls (sideward and forward) out of traveling and jumping/landing tasks.

**Appropriate Clothing.** Children should wear appropriate clothing for gymnastics. Loose fitting (but not overly loose) shirts and shorts that allow free movement should be worn. All jewelry should be removed. If teaching indoors, bare feet will allow children to develop the kinesthetic sense necessary for gymnastics. Make sure your school district permits bare feet before asking students to remove their shoes.

**Maintaining Equipment.** Regularly check mats and equipment for wear. Any equipment that contains splinters or broken pieces should be immediately removed for repair. Check all mats for tears that children may trip over or catch body parts on. Mats should be regularly sanitized with a disinfecting cleaner (available through most physical education supply catalogs) that will not irritate the skin.

**Handling and Moving Equipment.** Children should be gradually taught appropriate equipment set-up and takedown procedures. Teachers should monitor the placement of mats and equipment so they are adequately spaced and away from walls.

Mats should be placed on flat surfaces so they do not overlap or leave dangerous gaps. If children are asked to carry mats or equipment, appropriate lifting techniques should be reviewed (e.g., work with a partner or in groups, lift with the legs, keep the back straight, and face forward while walking).

**Progressive Skill Development.** As in any physical education unit, sound progression is an important element of creating a safe work environment. Children who have not mastered individual skills should not begin to combine and sequence skills. Work at floor-level should precede work on equipment. Work on low level, single pieces of equipment should precede work on higher level, multiple pieces of equipment. Finally, partner and group gymnastics work should not be attempted until the teacher is confident that the children have developed adequate levels of body management working individually. The stages of content development used throughout this feature provide a framework for developing sound progression in gymnastics.

**Providing Assistance.** Children should only attempt actions within their skill capability. In the event that a child needs assistance to "kinesthetically feel" a new movement, the teacher (with an understanding of the skill, knowledge of how to assist, and sufficient strength) should spot children. With the limited exposure most children have to gymnastics, they should *not* be asked to spot each other.

**Getting Ready.** Begin each lesson with a vigorous warm-up that will prepare children mentally and physically. The warm-up should include a gradual increase in speed and energy (to increase cardiovascular activity), use of the lower limbs (to practice carrying and receiving body weight), and use of the upper limbs and trunk area through bending, stretching, and twisting actions.

**Monitoring Fatigue Level.** Teachers should monitor the fatigue level of the class and ensure that the children do not stay too long on a task that places demand on a particular area of the body. For example, most children will tire easily with a great deal of work taking weight on hands. Jumping and landing for an extended period of time can also cause fatigue in the legs and ankles.

**Controlling Access to Equipment.** Avoid unauthorized use of equipment and mats. Mats and equipment should be stored in a locked room. In addition, if mats and equipment remain set up in-between classes or over lunch, a clear system (e.g., signs, cones, ropes) should be used to identify the equipment as "off limits."

**Positive Press.** Make it known to parents and administrators that gymnastics is part of your curriculum. Highlight your philosophy for teaching gymnastics and the safety precaution you take in a school newsletter that goes home to parents. Consider organizing a gymnastics show that displays the work of your students to demonstrate the positive outcomes that are possible when teaching gymnastics. *tepe*

