Chapter 12: Movement Domains

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The purpose of the chapter is to introduce the movement domains that describe five major categories of physical activities for physical education. Each movement domain is unique due to its particular characteristics and consequently provides students with an array of experiences intended to empower students physically, intellectually, socially, and emotionally through their developing skills, abilities, and experiences. These domains offer variety in the physical education program and their sound implementation should help to promote students' physical literacy and positive attitudes (e.g., joy of movement) for lifelong active living. The five movement domains are dance, alternative environment physical activities, individual physical activities, games, and gymnastics (DAIGG). Instruction using these movement activities should be developmentally appropriate, engage the affective and socio-emotional realms, and foster movement competence, healthy living, and enhanced fitness. For example, students can learn respect for self, others, and their environment, and increase in their appreciation for the role of activity in health and well-being. Students will also learn about movement through concepts, skills, tactics, and patterns found in the array of movement domains. Laban's movement framework provides the fundamental concepts related to the body, the space in which someone moves, the effort quality of that movement, and the relationships to others and objects. By integrating the movement domain, movement concepts and fundamental movement skills like locomotion (travelling), stability (non-manipulation and manipulation, the three foundational building blocks of physical education lessons is established.

Introduction

The goal of physical education is to assist children and youth to develop the necessary knowledge, skills, and attitudes necessary for a healthy, active lifestyle. To do so, a variety of physical activities must be introduced to all students, regardless of their diverse needs. A comprehensive framework of physical activities (DAIGG) is provided (see Table 3) to help physical educators to understand the broad spectrum of physical activities and to facilitate their planning in physical education curricula design, implementation, and evaluation (Lu & De Lisio, 2009). These five movement domains are generally reflective of each of the provincial curricula in Canada. Each of the five categories is unique and cannot be replaced by another. It should be noted that some activities may fit in more than one category (e.g., aerobic dance).

Although the framework does not include an exhaustive list of physical activities in school, all five categories and major sub-categories of physical activities should be introduced to students. In the elementary school, movement skill competency is typically achieved through a balanced program of games, gymnastics, and dance and blends fitness into each. As students mature into high school, the emphasis towards individual physical activities and alternative environment activities increases; however, teachers should develop their program in consultation with students based on instructional goals and objectives, students' needs and preferences, the teachers' expertise, the availability of resources (e.g., facilities, equipment, assistants, transportation) and time, administrative and parental approval, and school tradition and culture. It is critical that the selection of physical activities should align with the current philosophies and goals of physical education. For example, priorities may be given to those that may foster

lifetime, health-oriented, recreational, enjoyable, learner-based, cooperative (less competitive), and community-related physical activities.

Every activity must be regarded as the raw movement material that should be modified or adjusted to be developmentally appropriate in order to meet learners' needs and abilities and to nurture their positive experiences. Schools should develop a variety of programs and structural organizations to promote sustainable physical activities for all students such as clubs (e.g., dance, walking, skating) and themed school days (e.g., skipping day, multicultural games day). These programs and structural organizations may be developed under the conceptual frameworks of comprehensive school physical activities (e.g., physical education class, intramural, after school) and comprehensive school health (i.e., health promoting schools).

Movement Concepts

Teaching physical education through movement concepts forms the basis of a lesson's movement theme and facilitates students becoming educated *in* and *through* movement as they learn *about* movement (Wall & Murray, 1994). Rudolf Laban's (1947) descriptive analysis of human movement allows us to describe any human activity in terms of four major concepts and advantages both teacher and student. The four broad movement concepts answer the following questions:

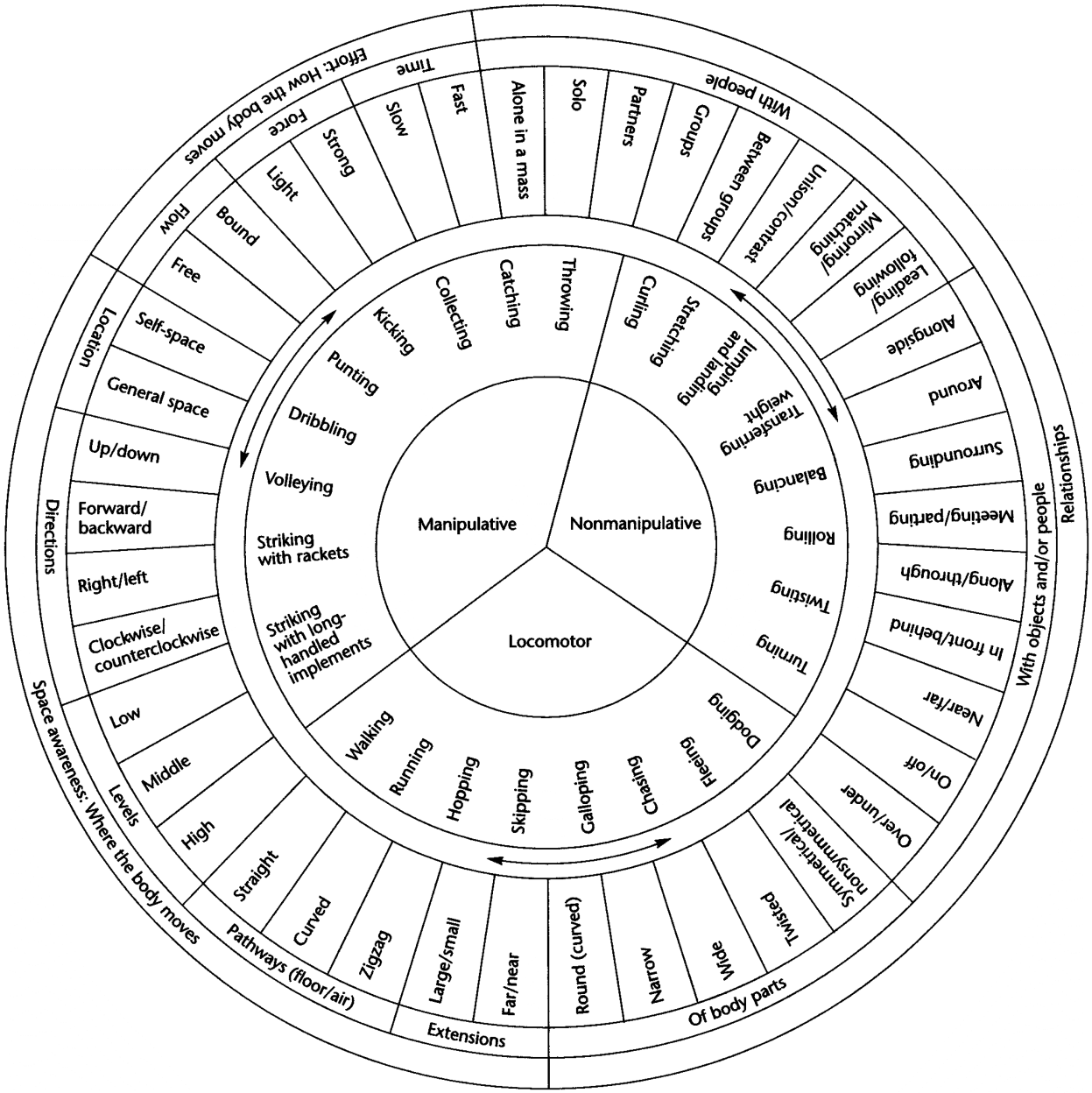
1. What is the body doing? (body concepts: body shape, body parts, locomotion, balance, body functions)
2. Where is the movement going? (spatial concepts: directions, levels pathways)
3. What is the dynamic content or quality of movement? (effort quality concepts: time, weight, space, flow)
4. With whom or to what is the mover relating? (relationship concepts: to people and objects)

Besides being able to describe any movement, we can also teach a new skill, and develop and refine existing skills through observation, discussion, and analysis by using the movement concepts to modify and alter the learner's movement patterns. The concepts enable us to:

1. Structure learning tasks and ask strategic questions
2. Observe and analyze movement
3. Communicate with others by using common terminology
4. Evaluate students' movement and the content of the program.

Fundamental Movement Skills

Fundamental movement skills (FMS) are the most basic movement skills found in any complex skill. They provide individuals with the requisite understanding and ability to be able to advance to more complex skills. Fundamental movement skills must be taught and are not acquired naturally. For example, to dribble a soccer ball on offense requires the skills of running, dodging, turning and changing speed without a ball (PHE Canada, 2011b). Common fundamental movement skills include run, stop, turn, roll, balance, jump, skip, gallop, hop, leap, kick, throw, and catch and contribute to an individual's physical literacy. Figure 1 illustrates the interrelationship amongst Laban's movement analysis, fundamental movement skills, and some specific skills from the movement domains (stability is commonly used to describe non-manipulative skills).



Graham, Holt/Hale & Parker, 2007, p. 284.

Movement Domains

It is helpful to categorize physical activities in physical education for numerous reasons such as facilitating the understanding and conceptualization of physical activities, helping teachers provide a variety of physical activities for students in curricular planning in physical education, and designing other programs (e.g., intramurals, after school) to ensure that students' movement preferences are offered. The following table outlines the five movement domains and forms each may take. What may also be considered is the variety found in each with respect to rules, use of equipment (e.g., balls, gymnastic boxes, skis) social expectations (e.g., collaboration, co-operation, competition), the environment (e.g., playing field, dance studio), and the ultimate

purpose of the activity; that is, whether it is functional (e.g., games), expressive (e.g., dance) or pursued for the pleasure of engagement in the environment (e.g., snow-shoeing).

Table 3: Movement domains (DAIGG)

Movement Concepts				
Fundamental Movement Skills				
Dance	**Alternative environment activities**	**Individual physical activities**	**Gymnastics**	**Games**
Rhythmic singing & clapping, step dancing… **Educational** creative, modern… **Folk** Aboriginal, hip-hop… **Ballroom and Social** jive, Latin…	**Land-based** hiking, orienteering… **Ice/snow-based** curling, ice skating… **Water-based** swimming, canoeing…	**Exercise without equipment** walking, running… **Exercise with equipment** cycling, inline skating… **Fitness** personal fitness, weight training… **Mindfulness exercise** Yoga, Eastern martial arts…	**Educational gymnastics** alone or in small groups, with small or large equipment… **Rhythmic gymnastics** ribbons, hoops…	**Low organizational games** chasing, catching… **Target** golf, bocce… **Net/wall** volleyball, badminton… **Territory/Invasion** basketball, soccer… **Batting/Fielding** baseball, softball…

Note: This is not a complete list of physical activities within each category.

Dance

Dance has received tremendous attention by the media in recent years, perhaps because of its demanding physicality and skill, evocative emotion, and tremendous variety within the art form. But dance is not new, as "every age has had its dance; …dance is consistent with life" (H'Doubler, 1940, p. 3). Over the centuries, dance has existed in some form in every culture and society as it fulfills social, recreational, competitive, religious, therapeutic and artistic functions (Oliver, 2009). Dance is so interwoven into human behavioral patterns that, although the forms may change according to the practices and values of the particular society, involvement is a hallmark of being human (Hill, 1982).

Overview

Dance lessons provide an opportunity for students of all ages to express themselves and be themselves. Dance education is valued because it offers the student a different way of knowing, a means for thinking and a form for expression and understanding of self and others, issues and events (Dewey, 1934; Eisner, 1998; Shapiro, 1998). The inclusion of dance depends upon whether the teacher considers it important for students to become skillful in and

knowledgeable about expressive movement. Many teachers assume; "because I don't dance; I cannot teach dance." When teachers begin with what they know and are comfortable with—and engage their skills of observation, movement analysis towards students' skill refinement, effective lessons can ensue.

Sometimes the question is asked if dance is part of the physical education program, part of the arts education program or a stand-alone subject. On reflection, it may not matter where dance is located in the curriculum. What is important is that children have learning experiences in the expressive form of movement.

The Material of Dance

When we dance, we either "replicate pre-set movements or we create our own movements" (Rutledge, 2006, p. 87). Regardless, dance lessons should be enjoyable for the teachers and the students. These lessons are times for movement exploration, sharing, selecting and rejecting ideas, participating in the creativity of others, observing dances being developed, and evaluating so teacher and students refine and clarify the product. Adshead (1981) advocates that students should learn to effectively create, perform, and observe dance. This implies that students should have opportunities to develop and dance their own dances, perform dances that others have choreographed, and observe one another as well as professional dancers.

Dance is a physical activity which is based upon fundamental movement skills. It is also an art form with a specific language and a social forum through which students' life skills can develop. Defined as such, educational theorists such as Eisner (1998), Gardner, (1983) and Vygotsky (1934) would likely endorse the educative value of dance. Once the movement material is identified, one or two relevant movement themes chosen by the teacher will guide the lesson idea and focus the students' skills. For example, in most Latin dances the hips are paramount as is the rhythm. The teacher should focus the initial lesson on body parts (hips) and time. When students are more proficient in the step patterns, the teacher may focus the steps in relation to a partner (theme of partner relationships) or add the complexity of changing directions (directions theme).

Anthoney's writing (1979) is helpful because it alerts us to the unique role of the dance teacher as being different from other movement forms. In dance, the teacher and students transform everyday movement into an artistic experience. This, according to Anthoney, occurs at three levels which provide us with a focus when we plan learning experiences for students.

- *Level 1.* Movement for movement's sake, to develop an awareness of enjoyment in moving. Beginners of dance of any age particularly need this kind of focus in their lessons.
- *Level 2.* The concern is with having an aesthetic experience. Our everyday movements are transformed into a form with new meaning. A quality dance program should give the students this level of dance experience.
- *Level 3.* This completes the transition from the everyday to artistic movement. The intention is "to give form… to create a structured dance…to show someone the dance" (Dewar, 1980, p. 28). An arts program, rather than a physical education program, would aim to reach this level of experience with all of the students.

Each of the three levels is a legitimate dance experience, and more or less emphasis will be placed on each of them at different stages of learning, according to the focus of the learning experience.

Dance Forms

Because Canada is so tremendously diverse in its culture, the number of dance forms that the teacher may include is almost endless. We have pockets of step- dancing, Ukrainian dancing, Aboriginal dancing, urban or hop- hop dancing, line dancing, square dancing, French- Canadian, Latin, Filipino, Indian, (plus many more) as well as educational forms of dance such as creative and modern dance. Some students may have had private dance studio training and be skilled in the dance forms of ballet, jazz, lyrical, musical theatre, acro (acrobatic) or tap—in which case they may wish to share their skills and knowledge in socially sensitive and developmentally appropriate ways.

The teacher's choice of dance forms should be based on the students' backgrounds, their interests, needs and capabilities at that particular time. As well, dance content may overlap with other subject areas and provide relevant and enriching educational material. For example, the teacher may decide that the students need help in working cooperatively with others and so select a particular cultural dance that requires this. The teacher may wish to prepare students for an upcoming graduation dance and teach the jive, waltz or tango. Or the students may be dealing with bullying and create a dance about friendship and respect for others through the teacher's guidance in creative or modern dance.

Folk and Social Dance

Most of us have images of established folk dances and social dances such as the waltz and jive. However, most dance forms are actually folk dances as they originate from the folk of the time. Even hip- hop, urban dance and jazz were originally considered folk dances. Folk and social dance is really borrowed from the adult world as they were the social dances of people. When schooling became compulsory and some form of physical activity was considered essential for the children, adult movement activities were scaled down and included in the curriculum. Teachers knew the dances, and they were considered easy to teach.

Over the years, folk and social dance has become firmly established in many school programs, and it is probably one of the most common dance forms taught. Students of all ages can have very positive learning experiences when established dances are taught by sensitive and confident teachers who are able to select and adapt predetermined dances to meet the developmental needs of their particular students, ensuring that all students are included.

Because there are a plethora of resources available for teachers who wish to teach pre-set dances, the steps involved will not be presented here. Rather, readers are encouraged to seek these printed and electronic resources available.

Creative and Modern Dance

Creative and modern dance, - which offers students a diverse dance experience - requires a carefully designed lesson to promote students' skill development and sequential movement. Students may dance alone, with a few chosen friends, or individually within the whole class. The movement material or skills of these educational dance forms may be simple rhythmic step patterns or descriptive verbs (and actions) which emanate from ideas or concepts. These verbs may be chosen by the teacher, may be found in poetry or stories, or may be created by the students themselves with the help of the teacher.

Effective dance lessons incorporate movement material that relates to the specific interests of the students. Stimuli for dance lessons can be found in a favorite character from a movie or television show; a song (*If I had a million dollars*), social issues (bullying, the

environment) or a news event. Ideas can be explored by discussing, analyzing, improvising with or without any accompaniment, synthesizing, and transforming the ideas into concrete, repeatable movement patterns or motifs.

The Dance Process

It is imperative that the teacher knows what dance skills or actions will serve as the focus of the lesson so that students' movement may improve and become more refined. These may include any of the following, depending upon the dance form taught.

Locomotor actions: walk, run, skip, gallop, jump, leap, hop, turn…

Expressive actions: stretch, curl, shrink, explode, creep, pause, wring, slash…

Folk or social dance steps: step-hop, two step, box step, jazz square, grapevine, polka step, pony, slide, pop, lock…

A Dance teaching progression

The following progression is a suggestion for the teacher to use in creative or modern dance.

- Students brainstorm with teacher about the concept to be developed in the dance sequence (e.g., friendship, family, sports) and the teacher writes relevant words on the board.
- The teacher then translates those words into verbs or action words with the students on the board.
- The teacher assists the class in selecting 3-5 different words or actions that she can develop with the students with or without music.
- The teacher then works with students through each word- one at a time- in a fairly direct way by asking questions, to find specific qualities for each word
- The students (alone, in pairs or 3s) choose 3 actions that they will develop into a dance.
- If students demonstrate the capability to organize themselves in groups of four, they will decide who will move when, where, and how in response to the teacher's parameters set (e.g., 32 counts for this; 16 counts of that).

Simple Dance Ideas

1. Teacher puts on popular music and reviews all verbs as stated below, reminding students that there is no *right* or *wrong* way. Students get into groups of 4 and pick an action from the envelope that the teacher has prepared. Each person creates a movement to teach others so there is a sequence of 4 actions of 8 counts each.

Walk	Jump	Turn	Step- Kick	Hands Wave
Turn	Pivot	Clap/stamp	Shake	Push

2. **Telephone choreography**- Each movement gets a number; teacher reviews all movements with students physically so that movement is of quality. Each student creates a sequence with his/her phone number.

1. Turn slowly	2. Hop	3. Jump/leap
4. Balance	5. Grapevine step	6. Reach
7. Pony/polka step	8. Stretch	9. Skip

Resources

Bergmann Drewe, S. (1996). *Creative dance: Enriching understanding.* Calgary, AB: Detselig Enterprises Ltd.

Brehm, M. A., & McNett, L. (2008). *Creative dance for learning: The kinesthetic link.* New York: McGraw Higher Education.

Carline, S. (2011). *Lesson plans for creative dance: Connecting with literature, arts and music.* Windsor, ON: Human Kinetics.

Schrader, C. A. (2005). *A sense of dance: Exploring your movement potential (2nd ed.).* Champaign, IL: Human Kinetics.

Shapiro, S. (Ed.) (1998). *Dance, power and difference: Critical and feminist perspectives on dance education.* Champaign, IL: Human Kinetics.

Gymnastics

Because students naturally delight in running, jumping, rolling, and climbing, the gymnastic experience should be a positive one for all, regardless of the student's age (Wall & Murray, 1994). These basic skills are fundamental movement skills and are used in many sports including gymnastics and other activities. Gymnastic movement is worthy of emphasis within the physical education program due to the physical demands it requires. Muscles of the arms, legs, and trunk are taxed as students balance, spring, climb, and hang. Body control is the major objective of gymnastics; efficient movement is necessary in a variety of situations, both on the floor and on apparatus. Experience with larger apparatus provides excitement and challenge and demands conceptual understanding. Students learn skills of collaboration, planning, critical thinking and predicting as they solve movement problems alone, with a partner, and using a variety of apparatus.

Forms of Gymnastics

Gymnastics is an aesthetic sport (like diving, or figure skating) that is concerned with movement itself, the focus being how and where the body moves in relation to the floor and obstacles. What the action *is* and how it is performed is the essence of gymnastics, not the result of the action, nor the effect of the action (as in games). At all times we are trying to prove that we can defy gravity in a variety of specially constructed situations. Through the centuries, variations in gymnastics forms have evolved; however, the two most appropriate forms for school physical education are rhythmic gymnastics and educational gymnastics.

Rhythmic Gymnastics

Modern rhythmic gymnastics is a dancelike movement form, which incorporates elements from dance and games to create a sequence in which a ball, rope, hoop, ribbon, or club is manipulated in time to the music. Children and adolescents can enjoy the rhythmic elements of movements, and when they can catch, bounce, and throw balls with a degree of skill they will react positively to the challenge of performing these skills to music. They will also enjoy the challenge of composing a simple gymnastic sequence to popular music.

Educational Gymnastics

Educational gymnastics is aptly termed because its major goal is education. This implies that the student is most important, as opposed to the activity or movement skill. This is a form

we believe should be included in school physical educational programs as well as recreational programs.

In educational gymnastics, students work at their own level on tasks structured to develop understanding and skill in applying selected movement themes (see Table 4). While each student responds to the same task, the theoretical framework allows for skill progression appropriate for every child. The teacher's role is to observe and analyze students' responses and provide encouragement through increasingly detailed feedback individually, or to the entire class, which promotes the solving of movement problems through gymnastic activity.

Body awareness is heightened through a focus on the body's shape in jumping, landing, and rolling, balancing, hanging, swinging, and climbing. Students learn to control body parts and use them effectively to receive and support their weight as they perform various activities. They will discover that sudden, forceful movement is necessary at times, while energy must be harnessed to create an effective movement at other times. They will learn the importance of timing and rhythm, so movements may progress smoothly through a sequence of activities. Spatial dimensions will be explored so that height and distance are judged accurately in relation to both the body and objects.

Educational Gymnastic Content

The concepts of what the body is doing, where the body is moving, and how the body is moving in relation to the floor or apparatus are constantly being explored. Small apparatus, such as mats and hoops, as well as larger apparatus such as benches and boxes provide additional stimuli. When students work together, challenge is also increased. A partner may contribute to the movement sequence as an obstacle, a leader or follower, one who matches the movements, provides contrast, or one who assists a partner's movements.

Table 4. Gymnastic themes

Body concepts	Space concepts	Effort concepts	Relationship concepts
Body parts Body shape Body functions Locomotion Flight	Directions Levels Pathways	Time Flow	Partner work: copy, contrast, mirror, match, balance To the apparatus (or partner): over, under , around, through

Fundamental Gymnastic Skills

Locomotion - Locomotion implies traveling to a new place. Common types of locomotion used in gymnastic activities focus upon the feet (e.g., running and jumping), feet and hands (e.g., cartwheeling), and rolling.

Rolling **-** Most students can roll in some way. Rolling provides for the individual's safety upon landing while forming the basis for rotation in gymnastic movement. When a program involves climbing heights, traveling in unconventional ways, springing off apparatus into the air, or traveling backward, the teacher must provide a safety mechanism to prevent injury. The ability to tuck the body in a curled shape and continue moving until the momentum is dissipated prevents injury. Rolling has tremendous value for the child, not only as a form of safety but also because it necessitates focus on the use of body parts, body shape, weight bearing, and

transference of weight. Because of this, the sequence of *run, jump, land and roll* must be learned early in the gymnastic program.

Jumping – Jumping requires flight and takes the form of a transfer of weight from two feet to two feet, one foot to two feet, two feet to one foot, one foot to the other (leap), and one foot to the same foot (hop). Jumping is first experienced by stepping down from a height, then running and jumping. Later, jumping onto a height will be mastered. For this reason, the progression of jumping down, then up, over, and later onto apparatus should be employed.

Run, jump land, roll- Once students are adept at rocking and rolling, they may be asked to create a sequence of a stretched shape and a curled shape that will roll. These shapes should be joined together in a continuous fashion so that movement is not jerky and the rolling appears to grow naturally out of the curled shape. Stretched shapes may then be required to be vertical – or mostly vertical – so the student must tuck and roll, taking downward momentum into sideways, forward, or backward movement. This stage provides the basis for the absorption of downward force and may be made more complex, preceded by running. Then, the sequence of *run, jump, land, and roll* should be attempted. When students have practiced this sequence sufficiently and are adept at handling the momentum, they have acquired the basic safety skills necessary for more challenging work.

Weight Transference - Weight transference implies a change in base of support, either on the spot or takes the body to a new place. Weight transference may be accomplished in various ways. The body may stay on the spot and merely change shape as new body parts take the weight as in the headstand, handstand, and shoulder stand. Weight may also be transferred from one body part to the same body part through flight. Stepping actions, rolling actions, or jumping actions can initiate momentum for transference of weight. When apparatus is used, there is even greater potential for weight transference because new body parts may support weight.

Stepping Actions – Stepping actions are a form of locomotion involving only the feet or hands, or both feet and hands to travel. Walking on hands or traveling along a bar while hanging, cartwheeling, and scampering with feet and hands all involve stepping.

Balance- Balance includes static or stationary shapes when the center of gravity is above the base of support and is held for a period of time. Static balance involves balancing on specific body parts. Common static balances include the headstand, handstand, frog stand (where the heads prove the base of support and the body is in a curled shape, knees resting on elbows), and back arch.

There are four types of balance:

- *Overbalance* –Overbalance involves balancing and then slightly shifting the weight (center of gravity) outside of the base of support in order for transference of weight to occur. A common example of overbalance is a handstand or headstand into a forward roll.
- *Counter-resistance* – Counter-resistance involves two people (or more) *pushing* against one another in order to achieve stability. A typical example of this is two people leaning into each other, shoulders contacting to create an inverted V.
- *Counter-tension* – Counter-tension involves *pulling* away from the partner (or others) to achieve balance. A typical example of this is two people locking hands and leaning backward, creating the shape of a V. *Suspension* – Balance on apparatus takes the form of supports or hangs. In supports the head is above the base of support (e.g.,

gripping on horizontal bar, hips resting on the bar). In hangs, the head is below the base of support (e.g., hanging inverted by the knees on a horizontal bar).

Climbing – Traveling up hanging ropes, vertical ladders or poles, and climbing frames promote climbing. These actions promote upper body strength and require gripping with hands, ankles, and/or feet.

Flight – Flight is produced when we are without support, totally off the ground. Flight is a product of jumping but may also be achieved by releasing the base of support from large apparatus.

Sliding – Slinging requires tension as the body shape is held while traveling downhill.

Summary

Gymnastics plays a vital role in the students' development of physical literacy. The focus is on the body and how and where it moves in relation to the floor, others or apparatus. The movement concepts of the body, effort, space, and relationships are applied to particular gymnastic skills for variety in the lesson focus.

Resources

Baumgarten, S., & Pagnano-Richardson, K. (2010). Educational gymnastics enhancing children's physical literacy: Harnessing the natural actions of children offers a great way of developing body management. *The Journal of Physical Education, Recreation & Dance*, *81* (4), 18-25.

Coelho, J. (2010). Gymnastics and movement instruction: Fighting the decline in motor fitness. *The Journal of Physical Education, Recreation & Dance, 81*(1), 14-18.

Games

The purpose of this section is to describe the basic nature, structure, purpose, skills, tactics, activities, pedagogical strategies, and helpful resources associated with teaching games in physical education. Games tend to be the largest component of the physical education curriculum for most schools (Hardman & Marshall, 2000). They provide a generally engaging means to enhance functional movement skills, knowledge, and behaviours.

What are games and how do they relate to sports? A game "has explicit rules, specified or understood goals, the element of opposition or contest, and a sequence of rules and actions which is essentially repeatable every time the game is played" (Estes & Mechikoff, 1999, p. 14). In contrast to games, *sport* represents a broader cultural institution particularly through its poignant influence on human lifestyle through the attitudes and values it models through physical performances, politics, and the media. Educationally, games are more play-like than institutionalized sport through their heightened focus on being inclusive, developmentally appropriate, optimally challenging, and designed to meet holistic learning objectives. The fundamental aim of sport is more competitive (to win), specialized (e.g., sport-specific training), quantified (precise records of performances), and more closely follow the standardized formal rules that are bureaucratically governed and managed both internationally and locally.

Many physical education programs teach games *as* sport – at the expense of many students – in order to strengthen their school sports program or to succumb to a prevailing socio-political agenda or image of sport reflected in the media and culture. While such trends are troubling, the culture of sport does have an important role in fulfilling particular educational

objectives of physical education (see Pope, 2011 for a review) especially if students are taught the role of sport culture and "sport as one exemplar of a culturally relevant physical activity and by demonstrating ways in which sport can contribute to leading a full and valuable life" (Almond, 1997, p. 15).

Games Theory

In educational movement settings, games are often differentiated by their structure which includes their level of purpose, complexity, or formality (see Table 5). Developmental games tend to emphasize more basic *lead-up* features (e.g., skills, tactics, understandings) of broader or more formal games such as tennis or rugby. Games can be more individual or partner focused (e.g., running, jumping, and throwing activities associated with track and field) or more team-oriented (e.g., ultimate disc) and emphasize one or more environments such as ground, ice/snow, water, or in the air (e.g., diving).

Table 5. Game definitions

Term	Definition			
Developmental (Low-Organization) Game	Bears little resemblance to formal games. Consists of simple elements found in many games (running, dodging, guarding), makes little demand on the players in terms of roles, strategy, and rules, and no game form is specified (e.g., tag, "Red Light, Green Light") (Wall & Murray, 1994).			
Lead-Up Game	More complex and bears greater resemblance to formal games as it consists of a combination of elements (manipulative and non-manipulative skills, positional play, and tactics) found in a selected formal games form (e.g., Danish Rounders for striking-fielding) (Wall & Murray, 1994).			
Formal Game	Institutionalized game/sport that provides competitive opportunities between players or teams and that are governed by rules which allow equal opportunity for success (Adapted from Ellis, 1983).			
	Target	Striking-Fielding	Net-Wall	Territorial
	Golf, curling…	Baseball, cricket...	Badminton, squash...	Soccer, ultimate disc...

Games within each of these categories share similar fundamental rules, skills, and tactical problems that reflect movement strategies common within a game category (see Table 6 for tactical examples). This can help physical educators to transfer the movement learning of their students *thematically* across games in the same or another game category. For example, underhand throwing or rolling an object around obstacles towards a target has shared movement themes of the formal target games of curling, frisbee golf, or bocce. These include a focus on body parts used to deliver the object, the pathway (and level as in golf) of the object as well as the weight of the delivery and the relationship to the other objects (as in bocce and curling). These target game concepts are also relevant in the other game categories of striking-fielding (e.g., softball), net-wall (e.g., handball), and territorial (e.g., rugby). Further, the tactic of covering space is very similar across striking-fielding games whereas creating space is shared in most territorial games. Such an integration of movement skills, concepts, tactical awareness, and socio-emotional qualities is a staple of the Teaching Games for Understanding (TGfU)

pedagogical approach which is one reason it has been emphasized in some new physical education curricula such as Ontario.

Table 6. Game tactics

Game Category	Relevant Movement Theme	Generic Offensive Tactics	Generic Defensive Tactics
Target Games	Body parts Body shape Pathways Weight Relationship to Objects	Accuracy Raise	Setting up guards Take-outs
Striking-Fielding Games	Body parts Locomotion Levels Pathways Weight Relationships to others	Strike to an open space Knowing when to run Helping another runner to advance *Protecting* the strike zone	Positioning to covering (limit) space. Making the ball (spin) difficult to strike. Communicating with and backing up teammates.
Net-Wall Games	Body parts Body shape Weight Timing Levels (of self and object) Pathways (of self and object) Relationships to others	Striking to open space Variation of shot type and placement Adding spins and fakes Strategic attacks (e.g., smashes/spikes)	Footwork, positioning, and anticipation Returning to a neutral position and posture Blocking and digging
Territorial Games	Body parts Body shape Weight Timing Levels (of self and object) Pathways (of self and object) Relationships to others	Creating (finding) open space (width, depth, and support). Short, quick, and accurate passes Give and go Special plays (e.g., free kicks, throw ins)	Diagonal teammate support Marking the opponent (and variations in degree) Zone or person-to-person systems Clearing the implement. Tackling and rebounding

Games literacy

The development of *games literacy* is a key aim of games instruction in physical education. Mandigo and Holt (2004) report that

> students are games literate if they (a) have knowledge and understanding that enables them to anticipate patterns of play, (b) possess technical and tactical skills to deploy appropriate and imaginative responses, and (c) are able to experience positive motivational states while helping to facilitate motivation among others involved in the game. Rather than being literate in a single game,

children with games literacy will be able to engage with poise, confidence, and enthusiasm in a wide range of games. (p. 4)

Knowing the primary characteristics about game rules, skills, and tactics (such as body and space awareness, effort qualities, and relational concepts) of a variety of games and how they relate to those of other games is important for game performance. Knowledge consists of declarative (the "what" about a concept or skill), procedural ("how" to perform it), and conditional-strategic knowledge (If-Then knowing about "when" and "where" to apply it tactically). For example, in the formal game of badminton a student should be able to both demonstrate the knowledge of what constitutes a drop shot and the rules pertaining to its use (declarative) but also how (procedural) and when/where (conditional/strategic) it is best used (i.e., when the opponent is in their backcourt). Those with more movement skill tend to rely increasingly on procedural rather than declarative knowledge to more automatically control their movements. In addition to the role of knowledge, researchers (e.g., McPherson & Kernodle, 2003) have noted links between game expertise and better working memory, recollection of game-specific information, and superior cognitive processing speed and accuracy in recognizing patterns of play all of which enable more strategic decisions.

Games literate participants also need to be able to perform a variety of physical skills – both technical (e.g., passing, dribbling, shooting) and tactical (e.g., guarding, deciding, moving when not in possession of the ball) – for effective games performance in a variety of contexts. One's movement competency, that can be improved through games, consists of the physical proficiencies (e.g., strength, endurance, coordination, agility), sensory and perceptual-motor abilities (e.g., visual perception, rhythmic, timing), and the fundamental motor abilities of stability (e.g., bend, twist, balance), locomotion (e.g., run, jump), and manipulation (e.g., catch, throw, kick, punt, strike) necessary for performance in games. Competence in fundamental movements avails one to increasingly apply these in diverse game settings that require advanced elaborations, combinations, and specializations of movements. For example, if one is able to run, field, jump, and throw with power and accuracy, this combination of skills can be applied in specialized formal game settings such as softball and basketball or other recreational activities--all of which can contribute to a more active lifestyle.

Socio-affective factors such as positive relationships, intrinsic motivation, and feelings of competence, enjoyment, safety, and support are being increasingly recognized as critical for games literacy. For example, Biddle et al (2004) reports that levels of enjoyment, feeling included, positive mood, body image, well-being, perceptions of competence, social comparisons (e.g., long wait lines), and peer relationships are associated with been linked to degrees of engagement in game settings. They add that positive experiences in games have also demonstrated links to improved life skills such as empathy, critical thinking, respect, and self-control.

Games curricula and pedagogy

There appear to be two primary curricular approaches to teaching games. A *top-down approach* formulates an instructional unit around the content (e.g., skills, tactics, rules) of a particular formal game or sport such as volleyball with lessons designed to meet the learning objectives relative to that sport. Francis (2009) reports that such an approach was historically more technical (skill-focused) to enable playing the game at the adult level and the teacher was the authority, expert model, and source of information, direction, and feedback. Alternatively, a *bottom-up approach* that is more common in elementary physical education curricula, reflects

units of instruction and sequential lessons that highlight the key movement strategies (e.g., skills, tactics, rules) related to the themes within particular game forms/categories (target, striking-fielding, net-wall, territorial). As a result, meeting the game themes becomes the chief aim rather than mastering the formal game or sport. Sample transferable skills in this approach could be catching and passing wisely and quickly, finding open space, using the most efficient footwork, and using strategic positions to maximize effectiveness.

Games pedagogy tends to fit somewhere between the two extremes of direct teacher-centered (behaviourist) and indirect (constructivist) learning theory (Rink, 2002). There is ample evidence that when done well, direct instruction can facilitate the learning of motor skills; particularly skills with several required technical elements such as the golf swing or the tennis serve. Meanwhile, teaching more indirectly has been linked more to improved affective (e.g., cooperation) and cognitive (e.g., tactical awareness in games) outcomes. Using this method (often in the form of instructional models such as TGfU, Peer Teaching, Cooperative Learning, or Sport Education), students are empowered to construct their own learning while working collaboratively with others (hence the term constructivist). Games instructors using this method might, for example, structure the lesson to facilitate cooperative problem-solving about the equipment or rule modifications needed to enhance their learning or experience, about tactical and skill challenges and solutions, and by having students function in certain team roles (coach, manager) to help meet mutual team and lesson goals. In TGfU, for example, playing a sample of games from the four main game categories (including most sports) serves as a vehicle for shared learning and engagement in physical education. Games are structured and regularly modified by the teacher or learner to be developmentally appropriate (e.g., optimally complex) and inclusive and (see PHE Canada, 2011, Volume III for more). Storey and Butler (2010) highlight the potential role of TGfU in teaching games as "inherently complex learning systems" (p. 142). They state that

> If teachers accept that games are sites of communal learning and adaptation for learners, then the purpose of games for society and the individual, from a values perspective, is an important consideration. If, on the other hand, we seek social efficiency (in which the purpose of our games is to foster competition and individualism in order to survive in our constructed economic and public spheres), then we do not need to rethink zero-sum children's games and common notions of winners and losers. If, on the other hand, we seek social reconstruction and want our teaching to create alternatives to the status quo, then alternative understandings of competition and cooperation (such as ecological understanding) provide insights into potentially different outcomes of the communal adaptation that can occur during games. (p. 142)

Activities for Teaching Games

For enhanced experiences in games it is important to include lead-up activities that that are inclusive, relatively novel, creative, tailored to learning objectives, developmentally appropriate, optimally challenging, as *game-like* as possible (versus teacher-centered *drills*), and that reduce public comparisons (as in activities with long wait times where idle students watch one another). As an aid, Rink (2002) posits the following four games stages based on their complexity: (1) developing control of the object; (2) complex control and combinations of skills; (3) beginning offensive and defensive strategies; and, (4) complex game play. Rink emphasizes that the two middle stages tend to be the most neglected in physical education and emphasizes

that "skill development out of context for a long time followed by game playing for a long time is an inappropriate approach to teaching games and sports" (p. 301).

Another way to enhance game activities is to modify activities to either simplify or extend (make more complex) them and to provide students with opportunities to do so. For example, the size and shape of the playing area, basic rules, equipment (e.g., ball type, goal size), number of participants, and other game conditions can readily be altered to engage more learners in the activity. It is also important for learning if the teacher or peers provide short, memorable, helpful, and timely skill and tactical refinements (learning cues and feedback) to participants.

Resources

Graham, G., Holt-Hale, S. A., & Parker, M. (2010). *Children moving: A reflective approach to teaching physical education.* New York, NY: McGraw-Hill.

Griffin, L., Mitchell, S., & Oslin, J. (2005). *Teaching sport concepts and skills – A tactical games approach. (2nd Ed.).* Windsor, ON: Human Kinetics.

Pangrazi, R. P., & Gibbons, S. L. (2003). *Dynamic physical education for elementary school children: Canadian edition.* Needham Heights, MA: Allyn & Bacon.

PHE Canada. (2011). *Fundamental movement skills (Volumes I - IV)*. Ottawa, ON.

Individual Physical Activities

Individual physical activities are activities that are performed alone but may be enjoyed socially as well. They are enormously important because of our lifetime need for physical activity as an integral part of our lifestyle.

Overview

Individual physical activities are easily implemented in our daily routines with minimal cost, scheduling flexibility, and are not dependent upon others for engagement. The most popular physical activities performed by Canadians are individual ones such as walking, swimming, and bicycling (Canadian Fitness & Lifestyle Research Institute, 1998). Nonetheless, there are not many resources or programs available to support individual physical activities in schools or communities. This may be due to the fact that individual physical activities are not commonly conceptualized as a category of physical activities. Many individual activities are related to activities of alternative environments (see the section of alternative environments activities) and many individual activities can be conducted in groups. These include activities such as fitness classes, swimming and jogging. The popular and simple individual activities include walking, jogging, running, personal fitness, mindfulness exercise such as yoga, martial arts, and Pilates as well as outdoor activities such as cycling, inline skating, skate boarding and horse-back riding (Canadian Fitness & Lifestyle Research Institute, 1998). All individual physical activities, when conducted safely, have various health benefits and reduce health risks. They are generally convenient, self-regulated, and simple to be integrated into an individual's daily life.

Basic knowledge and skills

Walking is probably the most popular physical activity because it is an easy and convenient exercise to do for almost everyone. Walking is different from jogging or running as the former has one foot is always in contact with the ground while the latter has both feet are in the air at one point in time. There are three types of walking: simple walking, power-walking (speed-walking), and race-walking. In school settings, programs should be developed to promote

walking, for example, walking to school, walking clubs (e.g., intramural, after school), and a school walking day. Urban planning should assist safe commuting on foot by designing or re-designing pedestrian friendly roads with maximal walkability for school, shopping, and recreation. Considerations in school walking activities include having no earphones for mindfulness, walking individually or in groups, and walking as a form of stress relief (see details in mindful exercise section). Pedometers may be used effectively to count steps and monitor students' progress.

Running is to go move steadily by springing steps to have both feet leave the ground (in the air) at once. *Jogging* is running at a slow gentle pace while sprinting is running at very fast pace usually for a short distance. Running is probably one of oldest human gaits and sports for survival, hunting, and recreation (e.g., ancient Greek sports). Different types of running include track, road, cross-country, trail, and mountain (hill) running for both recreation and competition. Jogging and running are the simplest and easiest physical fitness activities with a number of health benefits. Enthusiastic students may be assisted by online running programs which instruct and assist beginners to develop regular running, through scheduling. Safety considerations in jogging and running include having medical clearance, proper footwear (e.g., running shoes, socks) and appropriate clothing such as dressing in layers with hats, glasses, finding an appropriate route, , appropriate warm-up and cool-down, and plentiful water.

Physical fitness is the ability to function efficiently and effectively in regular daily life, work, and leisure activities. It is also a physical state of well-being influenced by genetic inheritance, diet, and exercise (Pangrazi & Gibbons, 2009). Physical fitness is different from weight training (an exercise with an emphasis on muscular strength) or weight related sports such as competitive weightlifting (a sport to compete for a single weight lift) and bodybuilding (a sport for body modifications). The two types of physical fitness are health (functional) related and skill (performance) related (see Table 7) (Pangrazi & Gibbons, 2009). Health-related fitness must be emphasized and should be integrated into students' daily life. The FITT principle must be followed: frequency (e.g., three times a week), intensity (measured by heart rate levels), time (e.g., a total of 30-minute workout duration), and type (e.g., running, skipping rope, cycling). A *personal fitness (or exercise) plan* (PEP) may include: a goal and specific measurable objectives, time frame for completion, current health-related fitness level (e.g., fitness test results), weekly planned activities (using FITT principle), weekly or monthly tracking records (e.g., when, what, how), fitness level (e.g., fitness test results) at the end of the plan, and reflection and considerations for next PEP. Fitness tests must be used with sensitivity as the purpose of fitness tests is to educate students about their fitness level, inform them of their progress, and motivate them to improve (process vs. product). Test results must be confidential, and should be used for comparison with one's own progress, not for comparison with other individuals or for awards. It is preferable to have simple, short, and routine fitness activities in physical education classes, school daily physical activity (DPA), intramural activities, and at home. The goal of teaching fitness is to help students integrate fitness into their daily life as part of their regular life individually and with family.

Table 7. Health-related and skill-related physical fitness

Health-related fitness	Skill-related fitness
Cardiovascular endurance	Agility & coordination
Muscular strength and endurance	Balance
Flexibility	Speed

Body composition	power

Mindfulness exercise as a term used here is not intended to suggest that other physical activities do not engage the mind. Rather, mindfulness is used to address the importance of integrating the body, mind, and spirit for the whole Self, as opposed to engaging in activity and being lost in thought about something totally unrelated to what one is doing (PHE Canada, 2011a). In fact, any exercise adopting mindfulness can be mindfulness exercise because it directly addresses the state of being fully engaged in the present moment, *here* and *now*. The most popular mindfulness exercises currently include East-Asian martial arts, yoga, qigong, and Pilates (PHE Canada, 2011a). Aiming for holistic health, these activities are executed with an inward-directed focus on a body-mind connection, breathing, controlled and deliberate motions, flow, center, balance, and repetitious movement. Critical knowledge and techniques include:

- *Breathing*: Be aware of breathing all the time, and breathe naturally or follow movements (inhaling when opening body and exhaling when closing body). Try to use deep abdominal breathing.
- *Avoid multi-tasking*: Do not have music or the television on when doing exercise. Let your mind go along with your movement.
- *Focus on the process*: Perform every single movement well and do not rush...
- *Appreciate the surroundings*: Impartially feel inanimate surroundings (e.g., equipment, gym, playing fields) and the animate environment (flowers, trees, a creek, others playing games).
- *Accept self and others:* Appreciate oneself and others regardless of body size, movement abilities, race, ethnicities, etc. without much judgment trapped by artificial categories.
- *Connect body-mind:* Not to conceptualize the exercise only for the physical aspects (e.g., heart, muscle) or mental aspects (e.g., stress, calmness).

Resources

http://www.canadianfitness.net/
http://www.mindfullivingprograms.com/
http://www.runnersworld.com/
http://www.thewalkingsite.com/
http://ojs.acadiau.ca/index.php/phenex/article/viewFile/30/21

Hoeger, W., & Hoeger, S. (2012). *Lifetime physical fitness and wellness: A personalized program* (12th ed.). Belmont, CA: Wadsworth.

Pangrazi, R., & Gibbons, S. (2009). *Dynamic physical education for elementary school children* (2nd Canadian ed.). Toronto, ON: Pearson.

PHE Canada. (2011a). *Fundamental movement skills: Alternative activities and pursuits*. Ottawa, ON: PHE Canada.

Rodgers, B., & Douglas, S. (1998). *The complete idiot's guide to jogging and running*. New York, NY: Alpha Books.

Stanton, J. (2009). *Walking: A complete guide to walking for fitness, health, and weight loss.* Toronto, ON: Penguin Canada.

Alternative Environment Activities

Alternative environment activities refer to those that are not normally performed in the gym or school playing field. These physical activities are usually conducted the out of doors and are land-based (e.g., hiking, orienteering), ice or snow-based (e.g., curling, snow skiing), or water-based (e.g., swimming, canoeing). In addition to direct health and fitness benefits, learning these physical activities is crucial for students to develop active lifestyles through their adulthood. Furthermore, engaging in these activities is a unique way to appreciate nature and integrate other subjects such as geography, math, social studies, biology, and environment studies).

Safety must be the top priority in these physical activities as they are not normally carried out in more controlled settings. The school, school board, and provincial policies and guidelines regarding these activities must be followed like all other school activities. In cases of certification required, properly trained instructors can be invited to teach preferably on a voluntary basis (minimal cost). Parents may be involved to increase the adult-student ratio for safety. Local resources (e.g., woods, swimming pools) should be considered first when planning such activities. This will link the activities to the community for students and reduce transportation. Two sample activities within each of the three categories are introduced.

Basic knowledge and skills

Land-oriented physical activities are recreational and usually non- competitive physical activities conducted on land such as hiking, orienteering, navigation, backpacking, camping, horse-back riding, caving, and rock or mountain climbing.

Hiking involves walking in outdoor natural environments (e.g., wilderness, grassland, parkland) usually on a trail for recreational and health purposes. The equipment may include proper footwear (e.g., hard sole, closed-toe) and proper clothing should respond to the weather (e.g., keep warm) and to the environment (e.g., long pant and sleeves to protect legs and arms from the underbrush, insect bites, and thorns). For a longer day trip, additional equipment to include in a backpack would be drinking water, food, first-aid kit, mobile phone, map, compass, whistle, flashlight, insect repellent, and sunscreen.

Orienteering is a sport that involves navigational skills primarily using a map and compass to navigate from point/location to point in a defined, unfamiliar terrain (e.g., school yards, local parks, forests, lakes). It can be recreational or competitive, individual or in group, and on foot or on equipment such as a canoe or bicycle. Competitive orienteering requires participants to locate a series of designated control points in the shortest time possible. Equipment in orienteering includes maps, compasses, proper clothing, footwear, drinking water, and a whistle.

Ice/snow-based physical activities are conducted on ice or snow and include curling, snow skiing, ice skating, snow shoeing, and sledding.

Curling is an aiming game on ice-where players *throw* curling rocks (stones) across ice towards a target (house). It is in the same family of bowling and shuffleboard. Curling is one of the most popular winter sports in Canada and an official sport in the Winter Olympic Games (Pangrazi & Gibbons, 2009). Many communities in Canada have curling facilities and clubs. The equipment in curling includes junior curling rocks for young players, brooms, proper footwear (two grippers for novices). Alternative curling games can be played in the gym using taped sheet course and hockey puck (or beanbags) as stones.

Snow skiing is a snow-based recreational or competitive activity of traveling on snow (e.g., cross-county, telemark, back-country, alpine, snowboard). It can be performed on hill or flat terrain, on trail or open snow. Cross-country skiing and downhill skiing are among the most

popular ones. Snow skiing has great benefits for fitness, especially muscular strength and endurance, cardiovascular endurance, coordination, and balance. The equipment includes suitable skis, poles, boots, proper dress with layers, hats or helmets, gloves/mitts, and goggles. Risky skiing should not be introduced to students (e.g., backcountry, freestyle, ski jumping,

Water-based physical activities are recreational or competitive physical activities conducted on the water (e.g., boating, rowing, canoeing, kayaking, dragon boat race, surfing), in the water (e.g., swimming, water exercise, water polo), or under the water (e.g., diving, scuba, snorkelling).

Swimming is one of the most popular and ancient water-based PAs. It is also among most important physical activities that all individuals should learn as 1.2 million people around the world die by drowning each year (more than two persons per minute) (International Life Saving Federation, 2012). Unlike many animals that instinctively swim, human must learn how to swim and survive in the water (from qualified instructors). It is among most valuable lifelong fitness activities and most accessible exercises regardless of age, sex, ability, or cultural background. Equipment for learning swim in aquatics facilities may include pool noodles, kickboard, pull buoys, floats belts, personal flotation devices (PED), instructional floatation devices (IFD), and swim fins. Learning sequence may include water orientation, holding positions (e.g., entry), basic swim skills (e.g., float, glide), basic survival skills (e.g., survival floating, treading, elementary backstroke), strokes (e.g., front crawl, back crawl, breaststroke); and diving (e.g., slide in, sitting, standing).

Canoeing is one of the most enjoyable outdoor water-based PAs conducted individually or in groups (e.g., family, friends) for all levels of abilities, usually in still or calm moving water on a river, lake, or ocean. The equipment includes shorter canoes in a shallow V-hull shape, paddles; personal floatation device (PFD) (approved lifejacket). A progressive learning sequence may include selecting a canoe, a paddle, and a PFD; carrying a canoe; boarding a canoe; basic paddling skills; self and buddy rescue skills; strokes (e.g., forward, sweep, draw, pry, J-stroke) in still shallow water. It is also helpful to learn how to paddle in the bow- to paddle in the front and look for obstacles and hazards- as well as paddle in the stern and steer. In addition, it is important to learn how to right a capsized canoe.

Resources

International Life Saving Federation (2012). Drowning facts and figures. Retrieved from http://ilsf.org/drowning/facts

Pangrazi, R. P., & Gibbons, S. L. (2009). *Dynamic physical education for elementary school children*. Toronto, ON: Pearson Education Canada.

PHE Canada. (2011a). *Fundamental movement skills: Alternative activities and pursuits*. Ottawa, ON: PHE Canada.

Schmottlach, N., & McManama, J. (2009). *The physical education activity handbook* (12th ed.). San Francisco, CA: Pearson Education.

http://www.olympiasportscamp.com/outdoor-education/index.php

http://www.redcross.ca/article.asp?id=000881&tid=024

Conclusion

This chapter addresses fundamental movement skills, movement concepts and the five movement domains Physical educators should introduce the whole spectrum physical activities in order to educate students in a variety of activities that will promote movement competence in

a wide variety of activities, movement knowledge and understanding, promote physical fitness and foster life skills.

Review Questions

1. Does the comprehensive framework (chart) of PAs address the whole spectrum of PAs that should be taught in school?
2. How would you select PAs in your future physical education, intramural, and after-school PA programs to foster healthy active lifestyle? Why?
3. What is the difference between sport and games? Developmental, lead-up, and formal games?
4. List each of the characteristics of games literacy. Why is it important to demonstrate tactics, skills, and knowledge that are transferable within and between game categories?
5. Discuss five values inherent in dance education.
6. Describe and discuss the roles of movement skill and movement theme for either gymnastics or dance education.

Case Studies

Case 1: 'Top-Down' or 'Bottom-Up'?

Two seventh-grade teachers vary in their approach to teaching an eight-lesson unit on the concepts of formal net games such as badminton.

Teacher One applies a *top-down approach* in which the lessons are designed with badminton in mind; that is, to foster skills, tactics, knowledge (e.g. of rules), and affective qualities associated with the sport of badminton. The unit begins with a teaching of the rules and then progresses through the main skills, tactics, and affective qualities needed to succeed at badminton. Drills and lead-up games are used so students become increasingly proficient in their badminton playing performance; most lessons end with game play. The teacher designs, models, implements, and teaches all of the content and gives all students plenty of feedback and questions to answer to maximize their learning. The final two lessons implement a class badminton tournament using the official rules and time for the teacher's assessment of students' skills.

Teacher Two utilizes a *bottom-up approach* designed to meet the learning objectives relative to formal net games. Since net games such as badminton, and volleyball, share similar fundamental rules, skills, and tactical problems Teacher Two implements a unit of instruction that targets the themes of relationships to people and levels (of the birdie and ball). In other words, meeting the net-game themes becomes the chief aim rather than performing a particular formal net-game. Sample net-game themes could be finding (striking or throwing to) or covering space (pathways) with optimal footwork (body parts) and communication, using the appropriate type (levels) (e.g., clear, drop shot, smash) and force of shot (weight) according to the game situation, and being aware of how each of these vary when using a racquet (badminton), hand (volleyball), or foot (sepak takraw). Lessons use movement tasks that are increasingly complex by having both the teacher and students involved in altering the conditions of play (e.g., changing the rules, equipment, number of players), conducting assessments, and providing further information and feedback. Lessons often begin and end with a modified game so that students experience a motivating context upon which to construct their learning.

Questions to Consider:

1. To which of the following approaches to teaching games have you been most exposed?
2. List and then discuss the main advantages and disadvantages of each.

Case 2: Can I Golf With You?

A physical educator arranges for his tenth-grade physical education class to play 4 holes of golf at a local golf course. One of the students (Terry) plays the second of the four holes (a par 4 hole) in the following way:

Terry drives his ball off the tee first because he arrived to the tee area first. He hit his ball deep into the woods (out of bounds) and swears loudly as he does so. Terry stands a safe distance directly behind the next person to tee off and begins to verbally tease his friend about his lofty score on the last hole. He quits this once all the players in their group of five have taken their first shot.

Upon arriving at the point of entry into the woods of his first shot, Terry climbs over a fence to access the out-of-bounds area where his ball entered. He looks for seven minutes and gives up only when players waiting to tee off behind him ask him to hurry up. He tosses a new ball into the middle of the fairway and strikes his next shot with all of the others in his group waiting for him on the green. His shot careens off a tree and into a sand trap near the green. In an angry response, he throws his golf club up and forward half-way to the green.

He takes a few practice swings in the sand trap carving out a divot in the sand on each one. Upon chipping the ball, it rolls close to the cup for which his group congratulates him. Another player farther from the cup is waiting to putt but he walks over the projected line of that player's shot and putts. He misses so he puts it again before it stops rolling and it finally enters the cup. He announces that he has earned a score of four (par) and walks off to the next tee before the others have finished putting.

Questions to Consider:

1. List all of the violations of golf etiquette in the description above.
2. Why is it useful for physical educators to teach the etiquette rules of various games?

Case 3 Teaching for Difference

Two Grade 5 teachers vary in their approach to teaching a selected skill in gymnastics.

Teacher One is of the opinion that all students should learn how to perform a cartwheel and informs the students that is their learning goal for the day. Once students are warmed up by running around the gym, he demonstrates the cartwheel many times so they can copy his action. The outcome is that some of the students could already perform a cartwheel, some students gained varying degrees of skill and some repeatedly fail and give up.

Teacher Two is of the opinion that all students can learn various ways in which to transfer their weight through stepping actions. The warm up consists of travelling on feet only in various ways followed by "taking weight on hands when you come to a mat." At mats, the teacher then encouraged the students to "Find 2 different, non- adjacent, body parts (e.g., 2 shoulders, l foot) to take your weight on, altering one, then the other so you travel." Students explored various body parts on their own, then observed ½ the class and discussed which worked better than others. The teacher then suggested that everyone take a small hoop and work on a feet-hands-feet action, placing hands only inside the hoop (feet always outside) making suggestions to each student for refinement. Students had tremendous variety in their final skills and were delighted with their progress.

Questions to Consider:

1. What specific teaching strategies did each teacher use to promote individualized skill development?
2. In what way is teacher two using constructivist teaching principles?

Case 4 Let's Go for a Fun Run.

The teacher, an avid runner, was keen to take her physical education class for a jog around the perimeter of the school block to enjoy the glorious spring weather. She told the students to line up at the gym door wearing their outdoor clothing and carrying their water bottles. When everyone was ready, the line of students ran through the playground, splashing through the pools of muddy water towards the street. The jog began well; however, as time progressed, the distance between the faster students and slower students grew. One student's winter boot fell off as he was running, which made everyone laugh because he continued to run in socks. Students, who were feeling hot, threw off their winter coats and slowed to a walk. The students behind them ran onto the busy street to catch up with the others. The students at the end of the line complained that they brought water bottles but they were still thirsty. As the students entered the schoolyard, the faster students jeered the slower ones; "Slow poke; slow poke!" The teacher was furious. The run was a disaster.

Questions to consider:

1. Select a specific age group for this scenario and write a list of things that Ms. Jones should have done.
2. What are some principles for ensuring students' safety that may be generalized to an array of situations?

References

Adshead, J. (1981). *The study of dance*. London: Dance Books Ltd.

Almond, L. (1997). *Physical education in schools*. London: Kogan-Page.

Anthoney, M. (1979). An introduction and position statement. In J. Emmel, D. Molnyeux & N. Wardrop (Eds.), *Values into action* (pp. 171-175). Australian Council for HPER.

Biddle, S. J. H., Gorely, T., & Stensel, D. J. (2004). Health-enhancing physical activity and sedentary behaviour in children and adolescents. *Journal of Sport Sciences, 22*, 679-701.

Canadian Fitness and Lifestyle Research Institute. (1998). Popular physical activities. *Progress in Prevention, 32*, 1-4. Retrieved from http://www.cflri.ca/media/node/177/files/pip32.pdf

Dewar, P. (1980). Teaching creative/modern dance in the schools. *CAHPER Journal, 46* (4), 27-29.

Ellis, M., (1983). *Similarities and differences in games: A system for classification.* Paper presented at the AIESEP Conference, Rome, Italy.

Eisner, E. (1998). *The enlightened eye: Qualitative inquire and the enhancement of educational practice*. New York: Macmillan.

Estes, S. G., & Mechikoff, R. A. (1999). *Knowing human movement*. Toronto, ON: Allyn and Bacon.

Francis, N. (2009). What's new within the U? Historical development of games education and current curricular relevancy of TGfU in Canada. In T. Hopper, J. Butler, & B. Storey

(Eds.,), *TGfU… Simply good pedagogy: Understanding a complex challenge* (pp. 35-47). Ottawa, ON: PHE Canada.
Gardner, H. (1983). *Frames of mind.* New York: Basic Books.
Graham, G., Holt/Hale, S.A., & Parker, M. (2007). *Children moving*. (6th ed.). Toronto: McGraw Hill.
Hardman, K., & Marshall, J. (2000). The state and status of physical education in schools in international context. *European Physical Education Review, 6*(3), 203-229.
H'Doubler, M. (1940). *Dance: A creative art experience.* Madison WI: The University of Wisconsin Press.
Hill, R. (1982). Let's teach sport and dance. *CAHPER Journal 48*(4), 13-16.
Laban R., & Lawrence, F. (1947). *Effort.* London: Macdonald & Evans.
Lu, C., & De Lisio, A. (2009). Specifics for generalists: Teaching elementary physical education. *International Electronic Journal of Elementary Education*, *1*(3), 170-187.
Mandigo, J. L., & Holt, N. L. (2004). Reading the game. Introducing the notion of games literacy. *Physical and Health Education Journal, 70*(3), 4-10.
McPherson, S. L., & Kernodle, M. W. (2003). Tactics, the neglected attribute of expertise. In J. L. Starkes & K. A. Ericsson (Eds.), *Expert performance in sports: Advances in research on sport expertise* (pp. 137-167). Champaign, IL: Human Kinetics.
Oliver, W. (2009). *Dance and culture: An introductory reader.* Reston VA: National Dance Association.
PHE Canada. (2011a). *Fundamental movement skills: Alternative activities and pursuits*. Ottawa, ON: PHE Canada.
PHE Canada. (2011b). *Fundamental movement skills: The building blocks for the development of physical literacy.* Ottawa: PHE Canada.
Pope, C. C. (2011). The physical education and sport interface: Models, maxims and maelstrom. *European Physical Education Review*, 17(3), 273-285.
Rink, J. E. (2010). *Teaching physical education* (6th ed.). New York: McGraw Hill.
Shapiro, S. (1998). *Dance, power and difference: Critical and feminist perspectives in dance education.* Windsor, ON: Human Kinetics.
Storey, B., & Butler, J. I. (2010). Ecological thinking and TGfU: Understanding games as complex adaptive systems. In J. I. Butler & L. L. Griffin (Eds.), *More teaching games for understanding: moving globally* (pp. 139-154). Champaign, IL: Human Kinetics.
Vygotsky, L. (1934/1986). *Thought and language.* Cambridge, MA: MIT Press.
Wall, J., & Murray, N. (1994). *Children and movement: Physical education in the elementary school*. Dubuque, IA: William C. Brown.