Seven Elements of PLAY and How They Impact Learning in the Classroom

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Balancing, Sliding, Brachiating, Spinning, Climbing, Swinging, & Sensory

Introduction

Close your eyes for just a moment and think about the playgrounds that you enjoyed when you were a child. Remember the old days when you would grab your bike and friends and go down to the park and play on the playground for hours? Maybe it was the monkey bars, rocking horses, sea saws, or the twirlers you remember most. The high metal slides had a lot of squeaks as you slid to the bottom and often landed in the dirt. Swings were always a challenge to go higher each time so that your toes could touch the sky. The faster kids pushed the merry-go-round, making kids dizzy and causing them to stagger when they got off. Parents didn't worry about children at the playground because they knew they were safe, active, and having a great time, as long as they came home in time for supper! Playgrounds were where magic happened for children. Frost (1992, p. 42) states, “Play is the chief vehicle for the development of imagination and intelligence, language, social skills, and perceptual-motor abilities in infants and young children." Modern-day playgrounds and play, in general, have changed immensely since those long-lost days. The reasons for the changes vary from safety issues, imaginative play, and developmental issues, but play is still valued and essential for all ages.

According to Oxford’s English dictionary (2018), the word PLAY has many different meanings. Several of the definitions that are useful regarding young children are:

- Engage in activity for enjoyment and recreation rather than a serious or practical purpose (e.g., the children were playing by the swings)
- Engage in a game or activity for enjoyment (e.g., to play duck-duck-goose)

- Amuse oneself by engaging in imaginative pretense (e.g., to pretend you're a butterfly)
- Engage in without proper seriousness or understanding (e.g., to play peek-a-boo or sing a silly song)
- Activity engaged in for enjoyment and recreation, especially by children (e.g., to play tag)

PLAY is often interpreted as a frivolous activity, a time to release inhibitions and break the monotony of mindless sitting in the classroom.

> Summing up the formal characteristic of play, we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings that tend to surround themselves with secrecy and to stress the difference from the common world by disguise or other means (Huizinga, 1980, p. 13).

Six benefits of play that regularly impact children and their development are highlighted at the genius of play website (Six Benefits of Play, 2017). Physical, emotional, social, cognitive, creative, and communication are all benefits that are evident in the classroom and on the playground (Frost, Wortham, & Reifel, 2012). Even with the reimaging of today's modern playgrounds, establishing objectives that contribute to learning and development of the total child are essential (Fox, 1993). Educators can place children in environments that allow them to discover and explore as they play. Fromberg (1990, p. 223) states that play is the "ultimate integrator of human experience" as children draw from past experiences to build on the play

experience and move forward. What exactly happens when children play? When children play, they develop motor skills (running, climbing), problem-solving skills (how do I get up this slide backward?), language development (push me higher) and communication skills (talking with friends) (Fox, 1993).

Many factors combine to integrate and enhance the development of the cognitive experience (Frost et al., 2012). The two theories of cognitive development that dominate the early childhood literature come from the work of Piaget (1962) and Vygotsky (1967). Piaget (1962) describes play as a process that allows children to practice what they have previously learned in the classroom. Vygotsky (1967) views play as a process where new learning can occur and cognitive development increases. Both theories are instrumental in examining play and can be seen in different contexts of children's play. Piaget's theory is evident in a child that dresses up as a nurse and cares for a sick child as they are rehearsing the role of a health care provider. Vygotsky's theory promotes new information construction that progresses as a child learns to wait in line for a swing to waiting to be called on by the teacher during a classroom lesson. Play augments cognitive development whether children are constructing new knowledge or practicing what was previously learned, as both are important. Both theories are essential, as they impart to a child the opportunity to have both an indoor and outdoor classroom. The outdoor play environment should be an extension of the indoor environment as each can function as a classroom with careful planning to enhance motor, social and cognitive functioning (Hymes, 1981).

The importance of cognitive development and the value of play has been emphasized and expounded upon for years. During the decade of the 90's, scientists learned more about the brain and how it worked than they had learned previously in the past 100 years. Around 1995 began

the avalanche of studies on the effect of play and physical activity on the brain. Researchers (Jenson, 2000; Medina, 2008; Ratey, 2008) found that without the foundation that physical activity/movement/play provides, learning is hampered or altered for many children. The connection supports what physical and play educators have known for years, and that is 'movement enhances learning!' (Hannaford, 2007).

The use of positron emission tomography (PET) scans and computerized tomography (CT) scans have enhanced the acumen of scientists as they discovered children use certain parts of the brain when they learn, but have also use the same parts of the brain when they move (Ratey, 2008). Jenson (2000) believes we can change a student's brain through everyday experiences. Physical activity allows the growth of new neural connections, which assist in learning in other educational arenas (Madina, 2008; Ratey, 2008). Educating brains is the responsibility of teachers and is the only organ in the body that can be sculpted by experience (Wolfe, 2010). The brain responds like muscles do, growing with use and withering with inactivity. Teaching skills are the same whether reading or dribbling a ball; repetition is what engrains the learning concepts (Hannaford, 2007).

To achieve efficient brain development, integration of movement and sensory experiences during the early developing years is necessary (Greenough & Black, 1992; Shatz, 1992). Medina (2008) and Ratey (2008) discuss the role of brain-derived neurotrophic factor (BDNF) in what they refer to as miracle grow for the brain. BDNF functions to translate physical activity into neural and cognitive synaptic connections. "A piece of brain tissue the size of a grain of sand contains 100,000 neurons and one billion synapses all 'talking' to one another" (Harley, 2013, p. 34). Play experiences enable these neural connections to grow stronger (Ratey, 2008). The adage 'practice makes perfect' is evident in that neural connections that utilized

during a learning experience become permanent and those not used are pruned away (Ratey, 2008). Once initiated, experience strengthens and bonds synapses and connections made between neurons. The potential for growth of these neural connections is enormous especially when play and movement reinforcement occurs (Frost et al., 2012; Lester & Russell, 2008).

The purpose of this article is to examine the seven elements of play in light of how they impact learning on the playground and in the educational environment. These elements have the potential to affect children as they practice what they have previously learned in the classroom and create new learning experiences that can impact cognitive development. Much of the input for this article is taken from the work of Jami Murdock, an early childhood educator for over 25 years. She outlines the seven elements of play that contribute significantly to the development of the brain and the transfer of learning in the educational environment (Murdock, 2016 a, b, c, d, e, f, g). Each of the seven elements of play begins with a definition, benefits that are evident on the playground, and benefits in the classroom environment. The seven elements include balancing, sliding, brachiating, spinning, climbing, swinging, and sensory development. The seven elements are the fundamental tools used in play that benefit all aspects of growth and development **(**Frost et al., 2012). Physical fitness is an important component that is enhanced and developed through many of these seven elements. It does not matter where fitness levels are being strengthened (inside or outside), but this health component is an additional benefit that occurs as children play. Physical fitness is a significant benefit to consider, however for this paper individual aspects of fitness will only be included as outcomes of play participation. Different elements of play aid in early childhood development which shape a child's future learning ability **(**Frost et al., 2012). We thought kids were just having fun on the playground, and they were, but much more is happening than we ever imagined.

Element #1: Balancing

Adults and children need to understand the importance of play and all it can do to build cognitive and physical development in children (Fox, 1993). With the push for higher test scores in our schools, many leaders think the answer is to decrease or eliminate physical education and play time. Current brain research is telling us just the opposite (Ratey, 2008). Exploration and discovery are critical elements in the environment that enable children to learn (Bento & Dias, 2017). The first element of play is that of balancing, and it is a missing element in the development of many school-age children (Belgau, F., & Belgau, B., 1982).

Although physical educators define balancing as the ability to stay upright and in control of body movement (Wood, 2018) the dictionary definition by Webster (2018) examines more of the specifics involved with stability (Table 1). Balancing occurs in many areas of the playground and is essential to the development of classroom reading and writing skills (Hubert, 2001). The channels in the brain connected with seeing and hearing are interwoven with the balancing process. Because the two are intertwined, children with seeing and hearing deficits will have issues with balance and children with balance issues will have problems with seeing and hearing and ultimately academic work (Delacato, 1982). Improved balance, hearing and vision are vital to increasing academic work (Hubert, 2001).

Balance is the pillar beneath every motor skill we use (Figure 1). It is more challenged than ever because of excessive leaning over computers, heavy backpacks, and obesity, which all affect posture and balance. Balance is an overlooked skill in the classroom environment as it is essential for everyday skills such as walking, sitting, and even writing where students need to balance letters and words on a page to initiate fundamental writing skills. In gymnastics, balance is a beginning skill that progresses from walking a line on the floor to intricate moves on the

balance beam. Balancing activities on the playground enable children to practice taking turns and learning to work together in a related task. Balance is also integral in developing muscle strength and endurance, particularly core strength which is needed more and more in today's society for healthy posture (Murdock, 2016e).

In the classroom, environment balance affects concentration needed to sit without slumping over and to pay attention in class. The concept of balancing utilizes numerous mechanical principles which help children understand concepts like gravity, equilibrium, counterbalance and other sports concepts. It promotes questioning and problem-solving skills to sort out questions like ‘why do I fall over if I lean back in my chair?’ or ‘how do I move when I meet in the middle of the beam?’. When a child participates in a task or interacts with the environment, they must be able to maintain their balance. A child with visual issues may be affected in their posture and balance, especially during movement activity (Belgau, F., & Belgau, B., 1982). It is critical in the development of eye-hand coordination, so children can balance letters and words on a page as they learn to write. It also assists in postural control to develop the strength to balance in a chair, not get tired, and focus on the task at hand (Murdock, 2016e). Postural control provides the body with stability to carry out normal activities like walking or standing.

Table 1

Balancing definition and benefits

Balancing

stability produced by even distribution of weight on each side of the vertical axis (Merriam-Webster, 2018)	
Benefits on the playground	Benefits in the classroom environment
develop balance and stability	develop better concentration
promotes pretend play	understand concepts such as gravity, equilibrium, counterbalance and other sports skills.
motor skill development	promotes questioning and problem-solving skills
	develops eye-hand coordination
	develops postural control

Note. Murdock, J. (2016e)

Element #2: Sliding

Even with the reimaging of today's modern playgrounds, new designs, layouts, and equipment, the expectations to promote playgrounds as an environment that is educational is still vital. If we eliminate play and activity, then we impact the child's ability to have the opportunity to learn through movement activity (Medina, 2008). Sliding is the second element of play, and it enhances spatial awareness, balance, and coordination skills (Table 2). Spatial awareness can help children judge when it is an appropriate time to start down the slide and when to put their feet down at the bottom. Balance and coordination can come into play as children experiment with going up the slide backward without slipping, which is good for kids. We know that quality physical activity enhances the neural connections in the brain that impact learning (Ratey, 2008). The development of neural connections in the brain that are increased with sliding can promote spatial awareness in the brain as children integrate information from all the senses (Belgau, F., & Belgau, B., 1982).

Spatial awareness is important whenever we move. In the classroom or on the playground, children need to learn to move without bumping into people or objects. These same neural connections are developed in the classroom with children that struggle with following directions, the spacing between letters, and basic writing skills (Hubert, 2001). Children learn patience as they wait in line and cooperative play as they climb up the slide backward all while problem-solving the solutions. Problem-solving skills are used to decide how to vary the way they slide using different techniques like two at a time backward or sliding down on their belly.

Sliding needs to be practiced as it is one of the elements of play that can be indicative of developmental delays that involve ‘W’ sitting (Biel, Peske, & Grandin, 2009). ‘W’ sitting (Figure 2) involves a child that sits on the floor, his bottom is between his legs, and his knees bent with legs rotated away from the body. The child's trunk posture is often droopy, and they

cannot move their arms outside of their base of support to play. The ‘W’ position is a natural position for the child because they do not have to work on keeping their balance (“The trouble with W sitting”). This position inhibits the child's ability to shift their weight, develop core strength, balance, and cross the midline. Sliding helps prevent ‘W’ sitting which can be a precursor to developmental delays (Biel et al., 2009). ‘W’ sitting will aggravate a child with poor flexibility in the legs and hips because it does not allow a child to rotate the truck, twist side to side, and it discourages hand preference (Murdock, 2016c). Sliding allows the hips to become more flexible and forces ‘W’ sitters to put the legs in front (“The trouble with W sitting”).

Table 2

Sliding definition and benefits

Sliding to move over a surface while maintaining smooth continuous contact (Merriam-Webster, 2018)	
Benefits on the playground	Benefits in the classroom environment
Spatial awareness	Spatial awareness
Balance & coordination	Following directions
Prevent ‘W’ sitting	Letter spacing
	Patience & cooperative play

	Critical thinking skills

Note. Murdock, J. (2016c)

Element #3: Brachiating

Brachiating (Table 3) is the third element of play and where or how brachiating occurs on the playground is unfamiliar to many. Brachiating is an animal movement that is accomplished by swinging from one hold to another with the arms (Figure 3). Brachiating happens as a child is crossing the monkey bars; unfortunately, there are not a lot of playgrounds with this type of equipment left for the development of this critical element. What is needed in the newer playgrounds to develop this element where the equipment is lower to the ground (safer) and where children can raise their arms and maintain contact with their feet on the ground ("What is brachiation?"). The vital component in brachiating is the alternating pattern, not the fact that the child is suspended in the air (Murdock, 2016g).

Eye-hand coordination, gross and fine motor skills, and kinesthetic awareness are benefits of brachiation that overlap with enhanced development on both the playground and in the classroom environment. Eye-hand coordination needed for reading, writing, and problem-solving develops as the child decides how to get from point a to b. Gross (swinging) and fine motor skills (grasping and releasing) develop as large and small muscle movement occurs. Kinesthetic awareness allows your body to know where it is in space (Biel et al., 2009). Many structures in your body have nerve receptors that act as conduits for information that the brain utilizes. The ear sends explicit information to your brain regarding the head's orientation to gravity, acceleration, deceleration, and direction of movement (Belgau, F., & Belgau, B., 1982). Your eyes provide depth perception and visual surveillance of objects around you. Your muscles

have a variety of receptors that tell the brain information concerning the tension in the muscle, if the muscle is elongated or stretched, how fast the muscle is moving, and most importantly the position of the associated joint (Hubert, 2001). Your brain receives this type of feedback information from your ears, eyes, muscles, ligaments, and skin every split second. Your brain requires this sensory information to guide your body through smooth movements, stay balanced, maintain posture, and react to the immediate environment (Alberta, 2015). The visual perception of distance, particularly between the monkey bars, is improved because as the child jumps up and hangs on the bar, he/she must decide to either let go and drop to their feet or yell for help. Any time both the left and right side of the body is used the child will also enhance the integration of both sides of the brain (Hannaford, 2007). Fine motor skills required for coloring, cutting, writing, painting, and upper body strength needed to sit with correct posture is increased along with communication and problem-solving skills to determine how to move from one place to another in the room (Murdock, 2016g).

Table 3

Brachiating definition and benefits

Brachiating to move by swinging with the arms from one hold to another on overhand equipment (Merriam-Webster, 2018)	
Benefits on the playground	Benefits in the classroom environment

upper body & grip strength	brain integration
endurance, flexibility, & coordination	eye-hand coordination
kinesthetic awareness	fine motor skills
rhythmic body movement	kinesthetic awareness
gross & fine motor skills	communication skills
eye-hand coordination	problem-solving
visual perception	

Note. Murdock, J. (2016g)

Element #4: Spinning

Traditional playgrounds used to provide ample opportunities for children to enhance spinning in the form of merry-go-rounds, spinning seats, and rockers (Figure 4). Today's modern playgrounds are less likely to provide equipment where children can spin an endless number of times due to safety concerns (“Merry-Go-Rounds: Revolving into a safer ride”). Spinning provokes an extreme reaction in the brain that children crave. Think about the number of carnival rides that involve spinning, where if done long enough the brain will react with dizziness, falling

over, nausea, flushing of the face, or even tossing your cookies! This reaction occurs because the brain is protecting itself from too much input and it responds by telling you it's time to stop with one of these reactions (Murdock, 2016d)**.** Vestibular stimulation helps the brain decide if it is ready for more learning and can process what's taught **(**Biel et al., 2009). More spinning activities need to be added to educational curriculums and playgrounds because of the impact it has on the developing brain (Table 4) (Hannaford, 2016).

Spinning is important, and it is one of the elements that positively impact the vestibular system (Hannaford, 2016). Kinesthetic awareness develops as the child must determine where he/she is in space and move without collisions. A hypersensitive child may be fearful of spinning and get dizzy quickly, but spinning can be used here as a tolerance builder for better vestibular input (Biel et al., 2009). Spinning allows children to experience shifts in their weight, develop depth perception, balance, and the cause and effect of motion (Hubert, 2001). Sensory information is varied, but spinning is the most potent form of sensory input that the brain takes in and processes (Biel et al., 2009). This type of movement enhances the vestibular system which acts as a switch for the development of reading, math and language development. (Hannaford, 2007).

Table 4

Spinning definition and benefits

Spinning
to rotate rapidly or a swift whirling motion
(Merriam-Webster, 2018)

Benefits on the playground	Benefits in the classroom environment
sensory stimulation in the area of touch, balance, and feel	brain integration
decision-making skills	pay better attention
postural control	vestibular stimulation
social interactions	understand laws of motion
kinesthetic awareness	sensory stimulation
muscle strength and endurance	

Note. Murdock, J. (2016d)

Element #5: Climbing

As children climb, they need to make decisions, solve problems and even visualize the solution (Murdock, 2016f). What will it take for me to climb to the top? Do I have to put my hand or foot in a specific place to move upward? Climbing requires focus, concentration, and perseverance. Climbing helps children gain confidence and learn to cope with fear and stress and develop self-reliance in this play element (Table 5). All the stretching, reaching, swinging, pulling and pushing with their limbs enhances awareness of their bodies and improves spatial

awareness and reasoning (Frost, 1992). Climbing does not have to be technical or complicated; children just need to go out and give it a go (Figure 5).

As children use the skill of climbing they increase muscle tone, strength and fine and gross motor movements. Climbing helps marshmallow kids that slouch in their chair develop better muscle tone (Frost et al., 2012). Visual perception skills are sharpened when they must decide where to place a foot or hand to move and climb up or down. Climbing develops motor skills as poor muscle tone, and motor skills reflect directly back to the classroom ("Building motor skills on the playground"). In the classroom, a child may not be able to perform appropriate writing skills or may not even be able to hold a pencil. This is important as many educators do not understand the connection between motor skills and the educational environment. All skills used in the classroom (reading, writing, moving around) are reflective of motor skills! (Hannaford, 2007).

As a child climbs, spatial awareness is improved as they have to know where to place body parts to move. The same connection is made in the classroom as they have to determine where to place objects on a page or label body parts in a picture (nose goes below eyes, mouth goes below the nose). Visual perception is impacted when children have problems where they cannot sort, color, identify shapes, build with blocks, or use memory and matching games. Coordinated eye movements with the head assist with copying from the blackboard and reading across a page. It also helps develop crossing the midline of the body where they need to reach across the body to learn, play, or write to assist in determining hand dominance (Murdock, 2016f).

Table 5

Climbing definition and benefits

Climbing to move upward, primarily by using the hands and feet (Merriam-Webster, 2018)	
Benefits on the playground	Benefits in the classroom environment
fine and gross motor movements	motor skills
perceptual motor skills	follow directions
visual perception skills	spatial awareness
vestibular system	visual perception
motor fitness	crossing the midline
problem-solving & decision-making skills	coordinated eye movements

Note. Murdock, J. (2016f)

Element #6: Swinging

The desire to fly through the air and fall as you jump from the swing makes swinging a favorite for all ages. It strengthens arms, legs, and core, as it takes a great deal of coordination to make a swing move (Figure 6). Postural stability in the area of proprioception comes into play and is essential for tying shoes, buttons, pouring drinks, and washing hands (Murdock, 2016b).

Swinging (Table 6) is a natural activity that coordinates eye and head movements as they move back and forth the motion can motivate the child to either get excited, relax or calm down (Bento & Dias, 2017). Children begin to understand that actions have consequences as in ‘what goes up, must come down' or ‘if I walk in front of that swing, I may get knocked down.'

Research shows that many of the seven elements of play help children's brain development and improves the ability to pay attention, as it stimulates the vestibular system (Belgau, F., & Belgau, B., 1982). Brain development is enhanced as the child learns about mechanical principles like speed and direction which may benefit children with visual processing deficits. Swinging assists with balance as spatial awareness is engaged to know where their body is in space. Practice with fine motor skills (gripping the swing chain), gross motor skills (legs pump to go higher) and coordination (fluid motion) all occur (Frost et al., 2012). In the classroom, environment swinging helps with sensory processing information, writing, coloring, and cutting (Vygotsky, 1967).

Table 6

Swinging definition and benefits

Swinging to move back and forth suspended or as if suspended from above in one particular direction (Merriam-Webster, 2018)	
Benefits on the playground	Benefits in the classroom environment
vestibular system	sensory processing information

whole body awareness & coordination	postural stability
proprioceptive system	relaxes & calms
strengthens arms, legs, and core	problem-solving and risk-taking
actions have consequences	fine motor skills

Note. Murdock, J. (2016b)

Element #7: Sensory Development

Current brain research verifies the neuroplasticity of the brain's amazing ability to change and adapt to stimuli in the environment (Hannaford, 2007). This natural process occurs as the child interacts with both the classroom and play environment. As children take in new information, new neural connections are created that allow the child to process the world around them. Our senses are interconnected with our memory and cognitive development, so that lack of development in one area may be related to lack of development in another (Alberta, 2015).

The final element of play involves sensory experiences (Table 7), as play can stimulate excitement, calmness, and alertness that can contribute back to learning. Playgrounds provide a variety of sensory experiences for children as they learn to order and adjust their senses as they move (Alberta, 2015). It encourages children to use one or more of the senses, stimulating sight, sound, smell, touch, taste, balance and movement (Figure 7). The different textures present on

the playground from the sand to the smooth metal on the slides, to the feel of the grass, provides a smorgasbord of sensory experiences (Biel et al., 2009).

Children rely on sensory input to learn about the environment, and it builds neural connections that support thought, learning and creativity (Hannaford, 2016). Language development, cognitive growth, fine/gross motor skills, problem-solving, reasoning abilities, and social interaction are impacted (Hannaford, 2007). Sensory stimulation enhances learning through a variety of channels. Tactile development refers to the sense of touch as the skin is the sensory receptor. The tactile system is the largest sensory system in the body and helps children determine cold, wet, hot, sharp, etc. Touch activities require the use of muscles while jumping on a trampoline, crab walking, running a three-legged race or obstacle course, playing leapfrog or hopscotch, tossing and catching games, and tug of war. The sandbox is also an excellent tactual activity and is very relaxing for many children (Murdock, 2016a). Visual processing skills help children move their eyes in specific directions developing eye fitness for reading and tracking skills (Hubert, 2001). Visual processing aids in differentiating between object size, similarities, interpretation, and understanding visual information (i.e., catching a moving object/tracking a ball in flight) (Hannaford, 2016).

Table 7

Sensory definition and benefits

Sensory of or relating to the senses or sensation (Merriam-Webster, 2018)

Benefits on the playground	Benefits in the classroom environment
builds neural connections	tactile development
language development	visual and auditory organization
fine/gross motor skills	stimulate a child's senses
problem-solving	builds neural connections
reasoning abilities	supports language development
social interaction	cognitive growth
auditory activities	enhances memory
visual processing	calms an anxious or frustrated child
	learn sensory attributes

Note. Murdock, J. (2016a)

Conclusion

As children head outside for recess, the race is on to swing, slide and climb. Health-enhancing playgrounds enable children to rejuvenate their bodies and strengthen their muscles. “It is paradoxical that many educators and parents still differentiate between a time for learning and a time for play without seeing the vital connection between them” (Warner, 2018, p. 1). We

cannot biologically see the physical enhancement that is going on, but we can see the positive effects on mood and activity levels, as children are just having fun. At a very early age, play is what enables children to engage and interact with the world around them. As they play, they learn to conquer their fears and develop the confidence they may need to face future challenges. Play is an integral part of the academic community, and when used appropriately in the educational setting it augments not just cognitive development, but social and emotional aspects, as well (Frost et al., 2012).

Physical activities in all forms (physical education, recess, sports clubs, integrated learning, after-school programs) are critical to the growth and development of children. The comprehensive school physical activity program (CSPAP) is a multifaceted approach where schools combine efforts to enable children to be more active throughout the school and community. This national approach supported by SHAPE America documents provide evidence on how physical activity in any form can improve academic performance and have a positive impact on education in many facets (Centers for Disease Control and Prevention, 2010). Physical educators can include learning opportunities through curriculum inside that reinforce these same elements during lessons taught outside through play.

Educators for far too long have devalued the use of these seven elements indoors as negative or damaging behavior. This is evident when we tell children to stop spinning and sit still, don't climb on that equipment or you will get hurt, quite sliding on the floor when we should provide them opportunities to learn safe techniques inside regarding all seven elements. Let's install slides to move from one level to another quickly. Climbing walls and inside obstacle courses are attractive to children to encourage movement. Let's use our climbing ropes for additional enhancement and allow children to swing like Tarzan thru the jungle. Instead of

punishing children for sliding on the floor, let's teach them how to slide correctly and safely, so they do not get hurt. Set up stations where balance skills are challenged and improved as children move on different levels and climb on indoor equipment which can promote a wide range of sensory experiences and opportunities.

Each of the seven elements of play aid in childhood development and shapes a child's future learning ability (Lester & Russell, 2008). Understanding the impact of these elements will lead to understanding how cognitive growth is enhanced in the classroom every day through play. Researchers and physical educators that focus on the mind-body connection all assert one concept: movement is essential to learning (Frost et al., 2017; Hannaford, 2016). Play is critical to growth and development so children can learn to solve problems, communicate effectively with others and develop motor skills ("Building motor skills on the playground"). The seven elements of play can challenge your thinking and provide you with new insights that you can share with teachers, parents, and administrators. It's crucial that parents and educators understand that 'play does matter' because it develops a multitude of cognitive and physical functions as we move (Murdock, 2016 a, b, c, d, e, f, g).

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