“WHAT ARE THE BENEFITS OF THE IMPLEMENTATION OF DANCE INTO ELEMENTARY CURRICULUM ON CHILD DEVELOPMENT?”

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Introduction

The performing art of dance has proved to be one of the most powerful forms of non-verbal communication utilized among humans throughout history. For thousands of years, dance has been used as a cultural practice to pass down stories and teachings to younger generations. (Thomas, 1995) Traditional forms of dance, including ballet, modern, and roots of jazz dance have been passed along since the times of early civilization. The earliest of dance genres have branched and diverged into the hundreds of dance forms that are currently being studied. (Mataga, 2008). Dance courses today teach the student to be knowledgeable of themselves, their bodies, and their surroundings and leads to an overall bettering of the self. Dance students understand through disciplined and creative tasks that studying themselves completely as an individual on a physical, mental, and emotional level is the only way to grow and advance through the art. The deep connection that the dancers build with themselves provides many benefits to their development. It also teaches the students integral lessons that they can carry into their everyday lives outside of the dance room. (Lewis, 1983)

In a world that is constantly changing, adaptations must be made in all aspects of life to ensure keeping up with the times. One of these aspects is education and what comprises the curriculum. Education is something that should never remain stagnant due to the continuous research performed on human cognition and how children’s minds are able to absorb new information. The concept of an ever-changing curriculum can be seen most dramatically in elementary curriculum as young children tend to be primarily auditory, visual, or kinesthetic learners. (Sri and Krishna, 2014) There should always be an ongoing search for novel methods of relaying concepts to kids in attempts to reach a broader variety of learners. In addition to neurocognitive functioning, schools additionally aim to develop their students on a social-
emotional level, which is not always easily done by remaining sedentary in a desk as the educator lectures the class. It is proven that children who undergo a PATHS (Promoting Alternative Thinking Strategies) curriculum perform stronger particularly in the categories of non-verbal reasoning, and quality of planning. (Wang and Walberg, 2004) A very influential addition that can be made to elementary curriculum to promote alternative thinking strategies would be the implementation of a dance education. In addition to there being countless mental, physical, and emotional benefits to beginning a dance education at a young age, dance can be used as a tool to relay concepts to kids that would typically be relayed through conventional classroom teaching methods. (Bresler, 2004) Dance also reaches all types of learners. Visual learners discover through visually processing the movement being displayed by the instructor. Auditory learners are driven by the musical component of dance. Kinesthetic learners benefit by using physical movements and hands-on application to reinforce concepts that are studied.

There are two major components of a dance education. The first is the regimented aspect that focuses on technique, placement, steps, and performing the movements accurately and correctly. The second is the creative aspect that allows the dancer to explore movement and become increasingly aware of their bodies and their surroundings. This creative aspect is a continuous self-study that continues well beyond the conclusion of the dance education. (Smith-Autard, 2000) The implementation of dance into elementary curriculum would provide numerous benefits to child development and provide an alternative method of relaying a variety of different elementary-level concepts to students.

**Addressing Counterarguments Proposed**
Though it is known that a curriculum that promotes alternative thinking is most beneficial in understanding concepts and provides the greatest increase in development, there are critics that do not believe dance should be utilized and implemented into elementary teachings and lesson plans.

My first counterpoint to the critics’ position is that it is important to note the difference between *dance training* and a *dance education*. *Dance training* is taught through a private studio or program and entails a more rigorous, intense, pre-professional training. *Dance training* requires intense physical conditioning, mental discipline, and a demanding schedule. In an elementary level classroom, what is being advocated for implementation is a *dance education*. A *dance education* does not train the students for performance-level mastery, but rather utilizes movement training to allow the individuals to develop and learn a variety of concepts. In a *dance education* classroom, small tasks are given that are specially formulated to work on particular skills. To give an example of just such an activity, the class can be split into groups of four or five individuals, one at a time perform a movement phrase for their group, and following the observation, the other members recreate that movement. Through this one simple specially formulated task, the students are working on their memorization abilities of the movement sequence, attention to detail of the movements being performed, and working together with their peers to replicate the movement that their classmate had just performed. To achieve the goal of this exercise, it does not take formal dance training to complete yet can be beneficial in that it can teach a variety of different concepts to students. Critics often misunderstand the difference between these two extremely contrasting studies of *dance training* versus a *dance education*, which is a reason for their argument on why dance should be implemented into elementary curriculum. (Koff, 2000)
A second rebuttal to the critic is to refute the concern that dancing is a very vulnerable activity that takes a lot of courage to simply participate. As such, they are concerned for the shy or introverted child. Children that are more introverted in nature may feel uncomfortable participating in these specialized dance tasks. These tasks ask the students to use think outside of the box in front of their classmates. Though taking part in the dance exercises would have more advantages than sitting out, there are benefits of solely observing the class if a student does not feel comfortable enough to participate. The Lateral Occipitotemporal Center (LOTC) of the brain is a visual processing complex that dancers learn about, train, and utilize often. It allows the student to visually process the movements being demonstrated by the instructor and convert what is being seen into physically performing the movement with their own body. A study performed that measured the three regions of the LOTC, including the extrastriate body area (EBA), the lateral occipital complex (LOC) and the motion (MT+) found that individuals that were solely observing dance had increased activity in those regions of the brain than the individuals that are taking part in the tasks. (Nota et al, 2016) The activation of these regions of the brain increases the individual’s ability to understand the movements being performed with more specificity and attention to detail. (Kable and Chatterjee, 2006) The students would be encouraged to jump in and participate in the activities whenever they feel they are comfortable enough to do so, but in the meantime, they would be training these visual processing centers of the LOTC of the brain while merely just observing the dance class.

Critics also argue that many students will have no interest in studying dance and that it is unfair to force these individuals to learn through dance education if they do not wish to do so. Some believe that dance is too “girly” and “feminine,” and steer young boys away from dance and towards a physical activity that is more socially accepted for boys to take part. (Holdsworth,
What is not considered by these critics is that the level of body awareness that is learned through studying dance can increase the individual’s athleticism and agility. Dance can be used as a method of cross-training for athletes. A study performed in Stockholm, Sweden demonstrated the increase in joint mobility, muscle flexibility, speed, and agility in elite preteen cross-country skiers after taking part in dance classes. The experimental group of individuals after participating in only three months of dance courses had increased their slalom-test times by an average of 0.3 seconds. It was also found that the experimental group showed an increase in thoracic spine flexibility by an average increase of 7.5° after the initial three-month training period. (Alricsson et al, 2013) Dance is a method of cross-training that focuses on thoroughly developing specific skill sets that the student can carry into their sport.

**The Benefits of the “Regimented” Aspect of a Dance Education**

The first key facet of a dance education is the regimented aspect which focuses on placement, lines, and technique of the student.

At an elementary level, students will be asked to perform steps repeatedly to master the mental association of the movement being performed. Dance is an activity that builds in difficulty as the course progresses, so it is imperative that steps are mastered before advancing forward to more complex moves. By using repetition, the specific muscle groups used to perform each movement are strengthened and articulated so that the student has more control over that motion. The concept of repetition is used to ingrain concepts into the brain, and the more that repetition is studied, students will become more proficient at using this skill on a regular basis, including outside the classroom. (Wogan and Waters, 1959) At an elementary level, students use repetition to ingrain their knowledge of the numbers, letters, shapes, seasons
and more into their long-term memory. A dance education also practices this concept of sensitization, which is defined as “enhancement of the response to a stimulus as a result of strong stimulation with another stimulus.” (Friedman et al, 1986) Over time, dance students build a repertoire of knowledge of names of steps that they can now associate with movements. This skill as a result increases the students’ capabilities to retain new words and the meanings that correspond with them.

Students that study dance have shown to have stronger memorization abilities that students that do not. Dale’s Cone of Learning is a model that shows the effectiveness of learner involvement. The model states, “People generally remember 10% of what they read, 20% of what they hear, and 30% of what they see. People generally remember 90% of what they do.” (Balgaonkar, 2010) The most effective way for students to learn concepts is by allowing them to form a physical association with the lesson, as dance provides. Dance encompasses reading, hearing, seeing, and doing what is being taught by the instructor, which allows for the greatest ability to retain information and ingrain it into their memory. All types of learners benefit through studying concepts using dance because dance encompasses the use of more of the human senses in comparison to conventional classroom learning. By implementing a dance education, students will be taught their lesson plans in a way in which they can more thoroughly understand the concept in comparison to solely learning using standard teaching methods.

When addressing the concept of coordination, it is important to note that this skill is acquired by conditioning individual muscles and parts of the body. In addition to working these muscles, it is equally as important to educate the students on the basic human anatomy, physiology, and kinesiology that instigates the body parts to move in the ways they can move. As knowledge and awareness of the body parts increase, the individual is more capable of
performing physical tasks. The individual that is knowledgeable of their range of motion, strength, and capability of their body parts, and knows how to gain full control over their motions becomes increasingly coordinated and agile. (Franklin, 2004) Through a dance education, students use repetition as exercises to train individual muscles, allowing the personal mastery of control over these body parts. For example, in ballet, the tendu is a simple movement in which the dancer glides the bottom of the foot across the floor with an extended knee, rolling through the foot to a point. The dancer uses resistance to push the foot against the floor and ends in full a plantar flexion of the working foot. The tendu is a way for dancers to articulate through the muscles and tendons surrounding the tarsals, metatarsals, and phalanges of the feet to gain more muscle control over these areas. (Trajkova and Ferati, 2015) Dancers train this part of the body so that when they advance to more complex movements, such as leaps, they can use this foot control to land from elevations off the ground safely and softly. A dance education provides the students with a level of body awareness that allows them to control the ways in which their bodies move.

This skill of increased coordination and control of the body can then be carried into everyday life. For example, it is not unusual for kids to experience falls from high surfaces, and the risk of injury decreases when they have an awareness of their lower extremities and how each body part moves. Dancers learn that when they land their jumps that the hinge joint of the ankle dorsiflexes upon contact with the floor. This action becomes ingrained in their muscle memory because of repetitional movements of steps like the tendu. The child will be able to prepare themselves when they fall, landing in a way that articulates through the foot instead of landing on a flat foot. Landing improperly could lead to bone compression injuries of the spine or the lower limbs. Dancers also learn to land jumps in a slight plié or bending of the knees so that the
impact of the landing is not taxing on the knees and the energy of the jump is transferred in a way that does not put too much stress on one particular body part. (Howse and McCormack, 2009) The awareness and muscle control that dancers learn increase their coordination abilities and can lead to knowledge of the body that can prevent injury in their everyday lives.

A dance education also provides immense benefit on balance and weight shift. When holding a position, whether it be on two feet, one foot, on relevé (on the balls of the feet) or flat footed, the students are taught to identify the midline of the shape so they can hold their balance. If the dancer is standing in first position, utilizing external rotation of the hips and allowing the heels to connect together and the toes facing outwards, their center of gravity is the line directly in the center of their body, also known as their midline. If their weight is shifted too far left, right, front, or back, they will not be able to hold this position. If the dancer wants to then transfer to a one-footed balance, in a passé position with the toes of the lifted leg placed directly above the knee of the supporting leg, a weight shift must occur for the student to maintain this pose. The center of gravity is now a straight line originating from the center of their standing foot to the top of their head. Next, the dancer will remain in the passé position and shift onto a relevé on the ball of the foot of the supporting leg. The center of gravity and surface connection point to the floor has now become even smaller requiring the student to transfer their weight once again to locate their new midline. (Speck and Cisneros, 2019) The practice of weight transfer is something that is thoroughly studied in a dance education classroom to maintain balance in all positions. As the dancer progresses through the course, weight transfer is completed more seamlessly and absent-mindedly which shows the ways in which dance imbeds this concept into the individuals’ movement skills.
Posture training is another major skill that is emphasized through a dance education. When taking a dance class, students are told to stand up tall with their shoulders down, keeping the head lifted and the core engaged throughout the entirety of class. Maintaining proper poise alignment for extended periods of time, as opposed to sinking into arching the lower back, rounding of the shoulders, or slouching the spine leads to students maintaining this posture throughout their everyday lives, including outside of the dance room. The practice of constant proper alignment increases dancers’ field independency, which is their ability to maintain their posture no matter their surrounding environment. A study test performed on test groups of dancers and non-dancers showed that the dancer remains in proper posture no matter their surrounding environment. Even under “sensory-challenged” conditions, including the addition of visual and auditory distractions, the dancers were able to maintain posture, balance, and alignment. (Crotts et al, 1996) Balance enables greater injury prevention and greater awareness of the individuals’ center of gravity, which can prevent falls or injuries throughout everyday life.

The regimented side of a dance education includes dancing in groups and performing in unison. While performing in a group, the student must be attentive of the self to be sure that the correct steps are being performed, but they also must be aware of the rest of the group as well in order to dance in time with each other. The emphasis on awareness of others while performing in a group releases chemical endorphin in the body that increases the energy in the room and allows the group to feel unified as a “coherent unit.” (Tarr et al, 2017) This skill improves teamwork abilities as keeping time with the music in synchrony is something that requires every student to be mindful of while dancing in unison.

The Benefits of the “Creative” Aspect of a Dance Education
The second facet to a dance education is the creative aspect which is what constitutes dance a performing art. This component of dance allows the student to connect with themselves and the individuals, objects, and environment around them on an emotional level. In addition, creative dancing promotes thinking outside the box by exploring new paths of movement.

The creative aspect of a dance education is what makes it multi-disciplinary. Specialized lesson plans can be devised to help the students more fully understand the concepts they learn in a conventional classroom. For example, shapes are one of the concepts learned at a young age that can be reinforced with movement studies. The task given to instruct this topic may include the students having to make various shapes using poses. This concept can also be used a directional tool to guide the path of students across the floor in various shapes. (Kauffman and Dehline, 2014) The students can visualize and feel concepts come to life as they demonstrate a variety of specialized tasks given by the dance instructor.

At a young age, students may be feeling a variety of emotions that they do not know how to express or verbalize. Through movement therapy and tasks, students build a stronger relationship with themselves by allowing their bodies to move in the ways that they so choose. Giving students this artistic freedom allows their movement to root from a place deep inside them, which opens the door to their understanding of feelings that they may have not known how to put into words. (Payne, 1992) Through the use of dance as an outlet for expression, students may undergo many levels of self-discovery and become increasingly curious to learn more about emotions they are feeling.

Music is used to drive the impetus behind the creative movement the students demonstrate in a dance education class. When exposed to different forms of music, the autonomic nervous system is directly impacted and creates physical changes in the listener.
When exposed to a high energy song with a fast tempo, the individual experiences an increase in heart rate and respirations, and in contrast a slow-paced, somber song results in a decrease in heart rate and respirations. The physical body changes that result from listening to the music instigates a difference in movement choices by the student when contrasting songs are played. Students are learning through music-driven improvisation to associate the tone of a song with the appropriate movement to accompany it. This is a way to train kids to be able to recognize gestural movements and identify body language in their everyday lives. This musical response is a reaction unconsciously elicited by students who partake in creative movement. (Alpert, 2011)

Exposure to different genres of music through dance education courses also activates regions of the brain involved in attentiveness. The brain activity peaks during the extremely brief moments of silence in the songs. These temporary periods of time that cause the peaks are accompanied by an increase in brain cells that are specialized for the quick recollection of knowledge that has been ingrained into the individuals’ memory. Thus, the individual is more readily able to recall and utilize information they have previously learned while taking standardized assessment tests. (Alpert, 2011) Listening to music in its many forms and genres has incredible effect on brain activation and the development of students’ ability to associate between tone of music and the correctly accompanying movements.

In a dance education course, a class lesson plan can be used as a reiteration and strengthening of the students’ understanding of words that have been taught in the classroom. For example, if the students were taught descriptive words in class, creative dance can be used to feel the contrast of the words, moving in a way that fits the description they are being taught. For example, the words wavy, spiral, and sharp can all be used to guide movements. The students can be instructed to move like a wave and explore the ways in which the body can
articulate in that manner, followed by moving in spiraling motions, and finally utilizing sharp movements. The differences in their movement choices will be quickly observed based on the definitions of the words they were taught. This idea of applying concepts to movement would additionally place emphasis on building the students’ true understanding of that concepts taught in class, not just solely memorizing its definition. It would be beneficial to perform this activity in multiple groups so that the students could feel the differences in movement that they are performing themselves and visually observe the differences in movement that their peers are displaying. Creative dance allows conceptual ideas to be more thoroughly understood after the physical application of the definition or concept to movement.

Dance Movement Therapy (DMT) also serves as a therapeutic release for people of all ages. After twelve weeks of DMT learning, students showed an increase in dopamine and serotonin levels, stabilizing their sympathetic nervous systems. (Jeong et al, 2009) As ecological studies of human behavior show, these chemicals that produce happiness in the individual do not occur naturally. Rather, they are released when needs are met that make the individual content with an accomplishment. Dance classes encompass setting personal goals continuously. When goals are set, these neurochemicals are released, which triggers the desire for the individual to accomplish even more goals. This positive feedback loop instills a sense of drive in the individual. (Breuning, 2016) Each goal accomplished makes the students feel rewarded and in turn they have more confidence in themselves. The self-esteem of the individuals also increases as the dancers learn to be confident with the artistic choices they make in the dance room. In an improvisation session, no movement is right or wrong. Giving students the ability to make artistic choices is a task that may first be uncomfortable, but as time progresses, they grow to learn that these tasks are used for self-exploration and to diversify creative abilities. A study
performed on students that have practiced dance over the course of three months demonstrated the increase in confidence and success levels in the categories of scholastic competence, social acceptance, athletic competence, physical appearance, and behavioral conduct. These individuals displayed an evident increase in self-esteem on social, emotional, and physical levels.

(Theodorakou and Zervas, 2010)

**Conclusion**

This paper has merely scratched the surface demonstrating ways in which a dance education can have positive developmental effects on child development. For future research, I hope to see standardized testing performed on students in regions that have implemented dance as a part of their curriculum in comparison to students from areas that do not study dance in school. Canadian primary schools have had dance education studies implemented into their curriculum for decades. The country places importance on learning the performing arts just as much as any other subject. Though Canada’s education system is ranked much higher in comparison to that of the United States, I believe that an identical examination given to Canadian and U.S. students would be beneficial in seeing the categories that Canadian students are more proficient. The results of these exams could pinpoint what specific implementations of Canadian curriculum has developed their education system so far ahead of the United States. (Hoad, 1990)

Something as incredibly powerful as dance has the capability to impact the lives of any individual. Dance’s deep-rooted history has developed through cultural practices and has flourished into the multi-disciplinary study it is today.
DeCusati: What are the Benefits of the Implementation of Dance into Elementary Education?

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