Dance Teaching Techniques and Practices

Informing Other Disciplines

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There is a rift in dance education over the best way to justify the importance of dance in America's public schools. On one side, there are those that believe there is value in the teaching process dance educators employ and that this process maximizes student engagement in their work. Therefore, the argument goes, other disciplines could do well to employ the same techniques. On the other side, there are those that are disturbed by this approach. They feel that this approach somehow diminishes dance. They believe that dance is an art form, as valuable as any other, and should be included in the curriculum based solely on its intrinsic value. When one steps back and objectively assesses both sides of this controversy, it becomes apparent that dance can do both and that dance educators should advance both aspects when advocating the inclusion of dance in the K-12 curriculum.

I remember the Florentine cathedrals and museums that were showcases for the work of Michelangelo during a recent trip to Italy. This great master fused his understanding of human anatomy with tremendous artistry and passion. In the *Galleria dell'Accademia* I encircled Michelangelo's great "David," the ripple of muscle and contour of tendons and bone that lay just beneath David's marbled skin were clearly delineated by the master's chisel. Michelangelo's scientific investigation of human anatomy and understanding of kinesiology undoubtedly fed and inspired his work as an artist. He was also an architect who understood the principles of physics and engineering. In a generation of distinguished architects, it took one trained as a sculptor to bring artistic and architectural unity to St. Peter's Basilica in Rome.

The arts and sciences share common traits. Its practitioners are researchers who use the materials and techniques of their discipline to reveal the truth and meaning of the world in which they live. What emerges, or better, what they create are the objective results of their explorations. They also share common processes that lead them toward such discoveries. Each explores, selects, deletes, revises, "rehearses" or experiments, analyzes, interprets, and presents their work. Simply stated, artists and scientists make something from some previously unformed idea, movement sequence or lump of matter – like the piece of Carrara marble from which Michelangelo fashioned "David." At the core of their investigations was their intense involvement in the creative process, which led them to a product, whether a sculpture, a dance, or the discovery of the "KCNK9" breast cancer gene.

Dance education has operated a lot like Michelangelo by applying scientific knowledge, namely, brain-base educational research, to the artistic medium. In the K-12 setting, dance continues to be infused into the academic curriculum. Increasingly, research linking movement and learning is on the rise. This research has made K-12 education more hospitable for dance. Initially, Piaget confirmed this theory by connecting sensory-motor development and cognitive development. From the ages two through seven, or the "preoperational period," a child begins to conceptualize "through concrete and motor examination of the many dimensions of the external world..." according to motor learning theorist Harriet Williams.[1] This fact does not change as children continue into their young adult years.

According to Steven Zemelman, Harvey Daniels, and Arthur Hyde, experiential, expressive, collabora-

tive, and constructivist learning are best practices they outline, among nine others, in their book, *Best Practices: New Standards for Teaching and Learning in America's Schools*.[2] Experiential learning is active, hands-on, and concrete. Thus, the child is immersed in the most direct experience of the content as possible. Expressive learning is employed when students experience a whole range of communicative media in relationship to the subject matter – speech, writing, drawing, poetry, dance, drama (storytelling), music, visual arts, and visual displays of information including charts, graphs, pictographs, and diagrams. Collaborative learning activities tap the power of learning better than competitive and individualistic approaches. From a constructivist perspective, children do not just receive content, they re-create it and construct meaning based on scaffolded learning that occurs in incremental segments.

Eric Jensen, an educator who has developed brain-compatible learning programs, discusses how vital the "kinesthetic arts" are. He defines the kinesthetic arts as "dramatic" (dance and theatre), "industrial" (sculpting, auto repair, design, electronics, building, metal or woodworking), and "recreational" (recess, classroom games, physical education, sports, and active health programs). "Ultimately," Jensen contends that the kinesthetic arts "contribute to the development and enhancement of critical neurobiological systems, including cognition, emotions, immune, circulatory, and perceptual motor."[3]

In her book, *Magic Trees of the Mind*, Dr. Marion Diamond discusses the link between enriched learning opportunities and dendrite production in young minds.[4] Arts experiences are rich and multi-sensory by design because they are based on learning opportunities that are visual, auditory, and kinesthetic and tactile.

Inside the field of dance, Anne Green Gilbert stated at the 2003 NDEO conference in Albuquerque during her keynote address that "movement is the architect of the brain." Dance educator, Susan Griss authored a book entitled, *Minds in Motion: A Kinesthetic Approach to the Elementary Curriculum*.[5] Griss bridges theory and practice by providing examples of lesson plans that incorporate movement in science, math, language arts, and social studies.

The research base is continuing to build. It is conducted and applied by a range of scholars and practitioners in and outside of the field of dance. Movement can boost learning when it is incorporated into the academic curriculum. Some examples include:

1. Increasing reading comprehension and readiness through dramatic play,
2. Understanding the solar system and the concepts of rotation and revolution by creating "human planets,"
3. Investigating the structure of a DNA molecule by having students construct it in a hallway or gym floor by using their bodies,
4. Locating x and y coordinates on a grid constructed of masking tape by having students position themselves on the graph, or
5. Creating geometric transformations by sliding, flipping, and turning bodies on a classroom floor.

From a slightly different perspective, what intrinsic values exist in the dance creation and performance processes that can inform learning in a science classroom? If we could interview Michelangelo, what might he divulge about how he learned to bring form to his creations? What insights might he share with us as educators so that the children we teach learn to envision a broader landscape of possibilities? From his answers, we might notice parallels between what happens in our dance studios and what happened in Michelangelo's. We could then ask another question: what unique teaching techniques and practices of dance can be examined for the ways they can improve educational methods in other disciplines? What might the high school physics, biology, or chemistry teachers learn if they observed a dance composition class working collaboratively toward the creation of a dance?

As the previous research indicates, there is a reason why students are given lab partners and asked to physically manipulate objects and record results. Jensen correlated "hands-on" learning with "brains-on" learning.[6] Similarly, dance students work collaboratively as they use their bodies to manipulate movement in a studio in order to produce an ensemble work. Unfortunately some science teachers don't think about the process as much as the end result – the lab report. Therefore, they are not as "tuned in" to the experiential methodology they are trying to get students to employ. Isn't this how discoveries are made – through the process of dabbling, experimenting, asking questions, and accepting ambiguity until the creation or result takes form? Don't we want to equip our students so they can think critically, to think "outside of the box," and ultimately, to find promise or results because of their ability to ponder multiple possibilities? Pam Paulson, stated that "Masterful teachers find ways to extend student questions into the content they consider essential to learning."[7]

Often students are rushed through activities or are given group assignments that are to be completed as homework. This latter method creates a situation where the burden of organizing the group is borne by the student (and often the parents) on weekends and the activity is performed in the absence of the very educators who should be supervising the activity and

providing feedback. This is not an example of "collaborative learning" because students are not guided by the instructor, who should assist and stimulate them as they work.

There are some fundamental principles of the "create cycle" (create, perform, and respond) that define how dance teaching works and what works best. Dance education is founded on attention to process, often more than the final performance itself. Processes include acquiring the necessary body movement, choreographic, and performance skills with which to create and perform dance. That's why dancers spend so much time in the studio, training, rehearsing, analyzing, critiquing, and revising their work, before the dance ever reaches the stage. (Think of the year's artist's trained as apprentices during the Renaissance before they painted or sculpted.) The results are not known until the dance is completed. As students work, they entertain many possible solutions, or a "broader landscape," to their problem. They are encouraged by their instructor to tap into their own movement sources, to avoid imitation (no small task for dance educators since students are bombarded by the media driven choreographic "movement-bites"). They perform their dances using performance skills. Finally, they respond to their work and to their peer's through analysis and interpretation skills. How would learning be enhanced if high school lab partners had adequate time to probe as they conducted their experiments? Furthermore, how would their learning be enriched if they had the opportunity to present their results to their instructor and peers by discussing the stages of their experiment, commenting about their results, and inviting others into the conversation?

There is another reason why dance teaching techniques and practices engage students. First, the instructor is never very far away – coaching students as they work. Second, not unlike Michelangelo's passion as an artist, student involvement in the creative process engages emotions that spark learning. Similar to what Zemelman, Daniels, and Hyde and described as "expressive learning." As Paulson stated, "Emotions are key to long-term memory and learning...students must get involved with the situation in order to create a strong emotional memory."[7]

Realistically, however, dance is not for every student, but other disciplines can learn from the teaching practices employed by dance educators. Like Jensen's description of "industrial kinetic arts," I recall the many times I have walked down the science and engineering hallway at the university where I am a professor to find students huddled over car engines trying to revise and perfect their work. These students had the opportunity to "perform" when they exhibited their Northern Lights VII solar car at the Minnesota State Fair in the 2002. With continued perfection of such engineering, think of what this technology could mean to our environmental and political landscape? While I do think that the arts are well-suited for engaging students on a very deep level, I don't think the teaching methods employed are unique only to the arts because I have witnessed it in other contexts. The methods used in arts education can, and probably should, be extracted and applied to other disciplines. Herein lies one of the great contributions the arts can lend to the education of our children.

Undoubtedly, dance has unique value as an art form as students engage in the creative process. It can also inform the instructional methods of other teaching disciplines. Dance methods teach children *how* to think broadly because it gives them adequate time to explore, imagine, question, develop, and refine their work. Such methods can motivate other teachers not to rush through potentially rich learning and valuable assessment opportunities by attending to *how* students arrive at their answers and not just the answers themselves.

Inherent in the methods employed in dance instruction is their capacity to engage students fully in the learning process. The intrinsic value of dance as an art form in not compromised because of what it brings to other disciplines. Rather, this speaks to the depth and richness of the art form because of how it can improve student learning across the curriculum.

References

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