

Research Quotes
Compiled by
Gail N. Herman
2004

Baum, S. Owen, S. Oreck, B. (1997). Transferring individual self-regulation processes from arts to academics. *Arts Education Policy Review*. 98:4, 32-39.

p.32 Arts classes provide places for students to learn effective learning behaviors such as 1) taking the initiative to move to a better location to see or hear, 2) rehearsing a concept or skill mentally through visual or auditory means, 3) taking risks in asking questions 4) making preparations to perform a task, 5) persevering over mistakes, 6) making self-assessments and corrections.

Although all of these behaviors may be demonstrated in dance or art classes by certain students, these same students might not practice these self-regulation strategies in academic classes because students are not always as actively engaged in their learning to the same extent as they are during arts classes. [Academic] Teachers need to recognize self-regulation strategies and most important, teachers need to build environments that teach and encourage students to self-regulate their learning.

p.33 Self-regulation occurs when students are aware of their own learning processes. In academic classes self-regulation includes making choices about helpful goals, memory aides, work places, and what questions to ask. Four behavior habits are needed 1) self-observation 2) setting criteria 3) self-reaction 4) self-efficacy (Bandura, 1986).

p. 37 When planning their arts-integrated lessons, the teachers specified the lesson goals and targeted specific self-regulated behaviors.

How arts education builds the skills that business values. (Oct. 28, 1996). *Business Week*.

“An arts education teaches directly life attitudes and skills that businesses are looking for. More and more executives are beginning to discover not only that the arts make for a more stimulating and rewarding work environment, but that they can also have a direct, positive impact on the bottom line. In business lingo, the study of the arts provides value added.”

“In all the arts, a wide variety of technologies offer students ways to accomplish artistic, scholarly, production and performance goals. New technologies also make it possible for students to try out a vast array of solutions to artistic problems.”

“Study of the arts helps students to think and work across traditional disciplines. They learn both to integrate knowledge and to ‘think outside of the boxes.’ Leading edge companies, which now spend millions annually to spark imagination throughout their organizations, find that the most creative ideas come from people who are not bound by conventional modes of thinking. ... Knute Rockne patterned backfield formations for Notre Dame’s famed “four Horsemen” after watching a dance performance, and military designers borrowed Picasso’s cubist art to create more effective camouflage patterns.

Root-Bernstein, R.S. & Root-Bernstein, M. (January 14, 2000). Learning to think with emotion. *The Chronicle of Higher Education*. p. 64.

“No scientist thinks in words. Nor, it turns out, do most creative people in any discipline.”

For many authors, writing comes not from verbal formulations but, as Isabel Allende says, from “ somewhere in my belly.” Gary Snyder says writing starts with “ visualizing and revisualizing.” And Stephen Spender speaks of manipulating the “logic of images”

New ideas, however, originate in nonlogical and nonverbal modes that are translated only later into symbolic languages. By slighting those preverbal forms of thinking, we stifle the inventive capacities of many students.

Students should practice and master different kinds of thinking. For instance, to enhance understanding of the mathematics of physics, the physicist and amateur actor Jacob Shaham suggested having students treat equations as if they were the text of a play, and learn how to act them out. Just as Shakespeare’s or Brecht’s lines are cryptic abstractions of actions and events that can be brought to life only by staging them, equations and natural processes also can be dramatized.

The entomologist Catherine Bristow teaches by means of classroom theatre how DNA produces proteins, allowing students access to the interior worlds frequented by McClintock and Lederberg.

McClintock revealed “I found that the more I worked with them the bigger and bigger [they] got, and when I was really working with them I wasn’t outside, I was down there. I was part of the system.” Joshua Lederberg, another Noble laureate, stressed the importance of learning how “to become an actor in a biological process, to know how [to] behave as if I were a chromosome.”

Einstein wrote about mental experiments involving visual images and muscular feelings.

“Specialists in each discipline should agree to use a common language for describing thinking, pointing out where they use various mental tools in their work. Using terms such as “empathizing” or “Imaging” in every class would automatically build transdisciplinary bridges. Such bridges could be broadened if, in addition, teachers explicitly stated that those imaginative thinking tools can be used to understand anything.

Provide them with a rich repertoire of mental tools, such as imaging, abstracting, empathizing, or play-acting, kinesthetic thinking, analogizing, and modeling; and second, train them in skills needed to translate what they learn through those tools into formal, symbolic languages such as words, dance, music, or mathematics.

Colwell, R. (Mar/Apr, 1998). Preparing student teachers in assessment. *Arts Education Policy Review*. 99:4, 29-36

p. 29 The importance of assessment and evaluation activities is not related to a conservative or liberal agenda, nor is it dependent on whether the teacher emphasizes process or product. Both process and product have to be judged before the excitement that results from effective teaching and substantive learning strikes the conservative or liberal constituent. Rationalizing change, estimating what really is happening in a student's life, and describing intents and experiences are poor substitutes for the objective assessment, the changed behavior, the confident attitude, the commitment and passion for the arts that can be documented through interesting use of assessment tools that provide clear and understandable evidence of accomplishments.

p. 34 Any assessment model will fail if the purpose of the instruction remains unclear- a goal should not be "to get better."

[Perhaps one could use the following:

Unobtrusive measures

Embedded curricular evaluation

Rubrics

Questioning developed by Kay Hamblen]

Hamblen, K.A. (1984) An art criticism questioning strategy within the framework of Bloom's taxonomy. *Studies in Art Education*. 26:1, 41-50.

p. 35 Problem solving is seldom the best way to teach in arts education; modeling is both quicker and more lasting if the model can then be practiced sufficiently to become a habit. Habits are an overlooked but important goal.

Lewis, A. C. (Jan. 1999). Arts "report card." *The Education Digest*. 64:5, 69-70.

p. 69 The National Center for Education Statistics (NCES) has released the findings from the first national assessment in this area [arts], based on eighth-graders' responses and performance results in almost 270 schools.

The assessment analyzed performance in the arts in terms of three processes: responding to works of art, creating or generating original art, and performing or re-creating existing works of art.

6,000 S's

The assessment found that few eighth-grade students achieved high scores on the more challenging parts of the arts exercises.

In visual arts, for example, students were asked to give their impressions, identify and describe aspects of, and tell the story of a famous collage by artist Romare Bearden. In theater, students were shown a film clip and asked to identify the effect the camera was trying to make. They also worked in pairs to perform a reading of a scene from a play.

Funded by NEA with NCES.

Bonbright, J.M. & McGreevy-Nichols, S. (Jul/Aug 1999). NAEP and dance: On contextual data, process, and problems in dance assessments, and recommendations for the field. *Arts Education Policy Review*. 100:6, 27-32.

According to the National Center for Education Statistics Fast Response Survey System documents of both the 1995 and the 1997 surveys “(1) only 7 percent of dance instruction is taught by full-or part-time dance specialists. (2) 57 percent of elementary students and 80 percent of eighth grade students do not receive instruction in dance and (3) more physical education teachers are instructing dance in elementary school (36 percent) than in eighth grade (25 percent).”

“According to the Arts Report Card, 1. In dance, 7 percent of instruction in elementary schools and the eighth grade is taught by full-time and part time dance specialists, and 10 percent of schools report following a state or district curriculum in dance.”

This contrasts to music in which “91 percent of instruction is taught by full-time and part-time music specialists, and 72 percent of schools report following state or district curricula in music.

Tests were standardized so all students were given the same opportunities under the same circumstances.

“Students observed the same videotaped dance performances and answered written questions about them. The videotape was shown twice, and the students were asked to analyze, describe, and identify different aspects of the dance. Questions consisted of five to six multiple-choice questions and five to seven constructed-response (short or extended written response) questions.

The “National Assessment of Educational Progress (NAEP) developed separate standardized performance blocks for the creating tasks and the performing tasks. Different standardized warm-ups were developed for the creating tasks and for the performing tasks, depending on the focus of study in the respective blocks. Dance educators and professional dancers were trained to administer standardized scripts and warm-ups and to guide students through the performing and creating blocks. Live demonstrations helped students to understand and learn movement and increased students’ comfort level with dancing in an unfamiliar context.”

Difficulties in Assessment:

p. 27 Videotaping “(a) the presence of the camera may alter student response; (b) nuances or subtle movements and expressions may be lost in the translation from three to two dimensions; and (c) it is difficult to position the video camera to accurately see and record the students throughout the entire exercise even when dance space is restricted. Accurate

observations and subsequent scoring are often difficult when the elements of dance (time, energy, and space), movement, and pathways are reduced from three-to two-dimensional viewing.”

Rubrics. Developing rubrics to score videotaped performances as well as written and constructed responses presented numerous challenges.

Time and Space for Assessments

Next assessment + 2007

Questions still remain:

- 1) Are we measuring what we want to measure?
- 2) Were the questions asked important to the overall content?
- 3) As a whole, do the questions adequately represent an overall knowledge of dance?
- 4) Were the questions too easy? Too difficult/
- 5) Did students have to use dance knowledge or just common sense? Are some answers too obvious?
- 6) What other innovative means can we employ to test content, skills, and knowledge in state assessments with perhaps more limited human and financial resources?

Value of the Assessments to the Field of Dance:

What is tested is valued, and what is valued is tested.

The NAEP assessments, developed by dance educators in cooperation with assessment experts, provide a solid framework for testing content, skills, and knowledge through the processes of creating, performing, and responding in the discipline of dance.

States, districts, and schools can use the released tasks to assess their students, or they can use them as examples to stimulate other ideas for developing their own assessments.

Classroom teachers can use released tasks to determine if their students are receiving a balanced dance education and grasping content.

Other remaining Questions:

Where does dance belong in the curriculum?

What constitutes dance education?

Is it technique classes, composition, creative process, folk dancing, line dancing, jazzercise, cheerleading, drill team?

What is sufficient time? 30 minutes or 2 hours per week.

Dance educators should improve instruction in dance by encouraging colleges, universities, and cultural organizations to cooperate with local school systems.

The discipline of dance will be assessed as an art form in the year 2007 or before.

Stankiewicz, M.A. (Sep/Oct 1999). Spinning the arts NAEP. *Arts Education Policy Review*. 101:1, 29-32.

Laura Chapman (1982) reported that nine-year-olds who scored above the national average in the first assessment were generally white children, living in big cities, whose parents had some college education.

International art educators imbued with expressionist aesthetic beliefs and child centered ideologies of art education seemed to respond unfavorably to this latest American aberration – assessment of student learning in art.

Sylwester, R. (Nov., 1998). Art for the brain's sake. *Educational Leadership*. 56:3, 31-35.

“The arts, language, and mathematics have important biological values in themselves, beyond their marvelous interactive properties.

“Must math also then enhance music to remain in the curriculum?

“Within the same student brain, however is another set of neural systems that processes music forms distinct from language.

“Are our innate music networks [in our brains] something like unwanted tonsils or appendix tissue to be removed rather than to be understood and enhanced?

“Elevated serotonin levels are associated with high self esteem and social status, and reduced serotonin levels, with low self-esteem and social status. In motor terms, low serotonin levels cause the irritability that leads to impulsive, uncontrolled, reckless, aggressive, violent, and suicidal behavior (Sylwester, 1997). This knowledge about serotonin suggests that good school arts and physical education programs can play an important role in developing the fine motor control that allows youngsters to discover how remarkable the human body is....

“Our culture spends heavily to develop and appreciate virtuosity in aesthetic movement patterns- sports, concerts, theatre, dance. Scientists now know that the initial instruction for many such abilities must begin early, and we can argue that it shouldn't depend entirely on parental ability to finance private lessons if our entire culture benefits from the abilities.

“One marvelous aspect of the arts is that they cognitively stimulate both those who do them and those who observe others do them.

“The arts may provide another important cognitive service, however. We have multiple neural systems to process emotion and intelligence, and some may infrequently activate in real life. The arts (and probably our dreams) help maintain the strength of such systems by activating them in stimulating pretend situations during periods when real life

doesn't challenge them. Use it or lose it is a cognitive reality for neural systems tuned to the challenges of the immediate environment.

“For example, fear is a key alerting emotion (with a distinct neural system) that may infrequently activate in real life. But the arts frequently activate it. Is the universal childhood attraction to fearful fairy tales and other scary stories and games related to an unconscious need to develop our fear-system responses in playful non-threatening situations so that the system will function effectively in real-life threatening situations?

Consider other basic emotions: anticipation, surprise, joy, sadness, acceptance, disgust, anger. The arts embrace them all.

“Emotion is an unconscious body and brain system that alerts us to dangers and opportunities. It activates our powerful, multifaceted attention system in order to organize the myriad conscious and unconscious rational systems that our brain uses to solve the current challenge. **Emotion and attention thus become the pathways into all rational cognitive behavior.** Consider the cognitive plight of those with disorders of their emotion and attention pathways – ADHD, anxiety, autism, bipolar disorder, dyslexia, mental retardation, obsessive-compulsive disorder, schizophrenia.

“ Emotion and attention are thus critically important brain systems that must be nurtured beyond their innate initial survival levels into the limits of human capability. They're the unconscious doorway into a cortical room abuzz with conscious conversation and problem solving.... We can access our rational/logical thoughts through easily measured language, but our unconscious emotion/attention only through difficult-to-measure, nonverbal body states and feelings-our conscious awareness of unconscious emotions (LeDoux, 1996).

“EMOTION AND ATTENTION (WHICH ARE CENTRAL TO ALL ACTIVITY IN THE ARTS) OFTEN LEAD US TO IMPORTANT RATIONAL BEHAVIORS THAT WOULDN'T HAVE EMERGED IF WE HADN'T WALKED THROUGH THE ARTS ENHANCED DOORWAY. EMOTION DRIVES ATTENTION, AND ATTENTION DRIVES LEARNING, PROBLEM SOLVING, BEHAVIOR, AND JUST ABOUT EVERYTHING ELSE.

“Emotion, attention and their arts-handmaiden don't lend themselves to the easily measurable efficiency of rational thought.

“...biological value of an alerting/focusing system that can rapidly size up and respond to the flow of things, untrammled by conscious factual detail, verbal categorization, and precise evaluation.

“Our brain thus developed two separate but integrated systems, and the transcendent movement patterns that characterize the arts often provide the integration between emotion/attention and reason/logic.

“Only the unimaginative would suggest that both systems must be judged by the same criteria of economy, efficiency, and objective measurability.