

ENCOURAGING CREATIVITY IN THE FACE OF ADMINISTRATIVE CONVENIENCE: HOW OUR SCHOOLS DISCOURAGE DIVERGENT THINKING

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This article reports observations of 2 classrooms in which arts based creative activities were integrated with curricular subject areas. One successfully incorporated a positive approach to supporting creativity. The other classroom used a more traditional approach to creative activities in the classroom. Suggestions for and possible outcomes of supporting and/or not supporting creativity in the classroom are discussed and relevant literature on the topic presented and a discussion of the institutional barriers that keep creativity from being fully emphasized in the classroom. These include 1) the erosion of arts in the school curriculum 2) lack of Preservice teacher training in the arts and 3) over-reliance on praise in the classroom.

"If I were not a physicist, I would probably be a musician. I often think in music. I live my daydreams in music. I see my life in terms of music." - Albert Einstein

Educators of young children are realizing the importance of creativity, imagination, and divergent thinking in the classroom (Epstein, 2008). While many systems of schooling around the world have claim to strive for these traits, historically children that exhibited creative predilections did not always make the best students. Historical figures of genius such as Albert Einstein (who said that "education is what remains after one has forgotten what one has learned in school"), Erik Erikson (who was rejected by both Jewish and gentile due to his mixed heritage) and

Thomas Edison (told by a schoolmaster he had a "disarranged mind") all were written off as school failures because of their inability to conform to the requirements of "schooling". The question that we as a society need to ask is do we want to emphasize conformity and homogeneity at the expense of creativity? Luckily for the world, these unique individuals retained their creativity despite the requirements for conformity from their schools, and went on to make a significant impact on our world. Unfortunately, most children are more likely to learn to conform to what is expected rather than fight to retain their creativity and be a school "outsider".

As a parent of a gifted elementary school child, I am personally aware of the struggles to keep the flame of creativity burning in my child. The teachers in his

school are competent and caring professionals who, for the most part, have his best interests in mind (Brown, 2008). However, he does often struggle in school. Not with the academic content, which he seems to acquire with or without a teachers help of intervention, but with the requirements of "schooling" and the pressure to conform to a one-size-fits-all learning model. The things that he struggles with do not have to do with learning to read, learning mathematics, or understanding science, but rather with following rules without asking "why?", focusing on repetitious tasks without having his mind wander, and completing the masses of worksheets and assessments that are a constant part of his day. These requirements, which are often mandated by local school boards all the way up to the federal government, discourage him and also his classroom teachers from growing as a creative learner.

For example, once when doing his 3rd grade homework, I noticed him looking at the ceiling for a long period of time. When I asked him why he was "off task" he said he was thinking about what the world would be like if time moved backwards. This led to a long discussion of how the world would be different. For example, he told me that cars would drive around backwards, which I expected. Then he went on to explain how cars would be environmentally friendly because they would suck the carbon out of the air and make gasoline, which we would get paid for having sucked out of our tanks at the gas station. This level of creativity I didn't expect. We went on for the next week dis-

cussing how other things would be different. His third grade mind especially enjoyed discussing how our eating habits would be different (along with other bodily functions). This is exactly the type of thinking that is being discouraged in his classroom in favor of "on task" behavior. This is not to say that attention to a task is worthless, just that not all "off task" behaviors are what they may seem to a teacher.

Some of the best tools for promoting the creative process are being deleted elementary schools to make way for more focus on math and reading as a result of No Child Left Behind (Hendrie, 2005; United, Congress, House, & Committee on Science and Technology, 2002). Time restrictions, academic priorities, educational mandates from local school boards all the way up to federal departments, the overwhelming requirements of testing and assessment, and lack of funding has meant that these activities are slowly disappearing from our schools (Persellin, 2007; Viadero, 2008). We are talking, of course, about the arts such as visual art and music.

Arts in the Schools

In most schools, music, art and physical education are scheduled as "special" classes and children participate in them once or twice a week. The erosion of these amount of time that children participated in these classes began well before No Child Left Behind was enacted, however NCLB has been shown to accelerate the rate of decline. This is, indeed, quite short sighted as in 1992, the National Assessment of Educational Progress found that schools in which children spent more time in arts

NAEP Mathematics Grade 4 - Mathematics
Difference in Average Scale Score in 1992
for selected values
for Fourth grade instruction in music [C031210]
National

	Every day	3-4 times a week	1-2 times a week	Less than once/week	Subject not taught
Every day		Diff = -16 P-value = 0.0308	Diff = -10 P-value = 0.1161	Diff = 1 P-value = 0.8639	Diff = 8 P-value = 0.5631
3-4 times a week	Diff = 16 P-value = 0.0308		Diff = 6 P-value = 0.1195	Diff = 17 P-value = 0.0029	Diff = 24 P-value = 0.1332
1-2 times a week	Diff = 10 P-value = 0.1161	Diff = -6 P-value = 0.1195		Diff = 11 P-value = 0.0144	Diff = 18 P-value = 0.2124
Less than once/week	Diff = -1 P-value = 0.8639	Diff = -17 P-value = 0.0029	Diff = -11 P-value = 0.0144		Diff = 7 P-value = 0.6128
Subject not taught	Diff = -8 P-value = 0.5631	Diff = -24 P-value = 0.1332	Diff = -18 P-value = 0.2124	Diff = -7 P-value = 0.6128	

No test was performed
 < Significantly lower
 > Significantly higher
 = No significant difference

NOTE: Accommodations were not permitted for this assessment

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Mathematics Assessment.

Table 1 – NAEP Mathematics Grade 4, Dependence of Fourth Grade Instruction in Music

classes did better academically. It was found that there was a statistically significant difference in average NAEP mathematics scores between children who had music classes less than once a week and those that had music classes 2-3 times a week (National Center for Educational Statistics, 2007)(Table 1).

Creativity is not just an artistic concern. Creativity is also a big part of analytical and critical thinking and problem solving. In mathematics and science a creative and inquisitive mind is vital. Epstein (2008) discussed how encouraging creativity in all of its forms could support a child's academic performance and learning process and encourage lifelong learning. Research also shows how music is especially linked to cognitive development and learning (Anvari, Trainor, Woodside, & Levy, 2002;

Begley, 2000; Burack, 2005; Church, 2000; Harris, 2007; Holden, 2001).

Also, according to the comprehensive review of literature on arts-based teaching and learning by Rooney (2004), arts in the school appeared to increase the student's interest, motivation, cognitive skills, academic performance, communication skills, creativity, and self-esteem. Furthermore, arts-based teaching and learning have also used to help at-risk students improve their social and learning skills as well (Barry, 1990; Community Arts Training Institute, 2001; Center for the Study of Art and Community, 2000; Grammy Foundation, 2008). All forms of arts including visual art, drama, dance and music have been shown to be useful in enhancing students' thinking, literacy skills (reading, writing and oral communication) and overall cogni-

tive development, while music has been exclusively linked with the spatial-temporal reasoning which is critical to the development of mathematical skills (Deasy, 2002).

Some teachers have begun incorporating arts into the regular classroom to support learning in the content areas such as mathematics. This can be an innovative, interactive and successful practice in preschool and elementary classrooms. Some of the authors of this article have previously researched and published on this topic (Geist & Geist, in press; Geist & Geist, 2008). Many teachers proclaim that when art is incorporated into a lesson, the students "learn more deeply" as it involves vision, touch, hearing, speech, sometimes even smell and taste. Additionally, this method of learning teaches the child a new and different mode of thinking, and they can incorporate their own emotions and creativity into their work (Jehlen 2008). However this should not substitute for an well designed and implemented arts program in a school.

Two Example Classrooms

In the first classroom we observed, we observed a teacher doing an activity to support the development of letter recognition before a child first year of formal education. This seems like a great opportunity to involve creativity in a real and meaningful way into the curriculum. Unfortunately, what we observed was less than ideal. When learning about the letter "M" the students were given Xeroxed copies of a large block letter M, and were instructed to glue macaroni style noodles

onto the shape. The activity did not contain any creative thought on the part of the child and the objectives did not match the intended outcome. If the outcome was that children would learn letter recognition, then how is gluing macaroni to a piece of paper supporting that concept? Additionally, the students' artwork was never displayed nor shared with the other members of their class.

This activity is unfortunately typical of the types of creative activities that children are exposed to. When asked, the teacher admitted that the teacher herself did not develop the activities, but they had been downloaded from an Internet site for teachers. She also said that she got other activities from textbooks. A good creative activity focuses on process as well as product. Desirable academic traits such as inventiveness are fostered if teachers emphasize the process of being creative as well as the product. Creative activities should provide ample opportunity research, experimentation and revision (Lindstrom, 2006).

Developing the ability to develop engaging creative activities in the classroom is of paramount importance for preservice teachers. However, most preservice and practicing teachers just do not have a significant background in the arts to make them proficient in this area. With state boards of education and accrediting bodies such as National Council for Accreditation in Teacher Education (NCATE) mandating additional requirements and a plethora of required assessments to teacher preparation programs over the last 10 years, elective

classes or room for programs to add classes in the arts have shriveled away. At our university, Students take only one course in creative experiences and none in the basic arts such as music or art appreciation. 10 years ago, it was much different with students required to take a number of classes from the College of Fine Arts. Because of this many teachers struggle with activities such as this.

This is not to say that many teachers cannot develop good creative experiences for children. It simply takes teachers who can think creatively themselves. In a second preschool classroom, the teachers allowed the students to have free access to the class "alphabet book". This book included student drawings of objects that corresponded to each letter, and were added to the book on a regular basis. On their drawings, the students could include a picture with the name of their object (they could ask a teacher for help when spelling if they wanted or just write the letter). The students would write the word on their own. They could also choose to paste in environmental print relating to that word. For example, for the letter "M" they may bring in an empty bag of M&M's and glue it to the page. This method of teaching was also incorporated throughout other projects the class would engage in.

In this classroom the teachers worked with the students every time a child showed an interest in writing. If a child had a difficult time choosing an area to work in, the teacher would suggest the writing center. The teachers in this second classroom often asked probing questions about letters, the sounds they make, and what words

would start with those sounds. They also used a creative method—the alphabet book with student artwork—to continue to teach about the letters at every open opportunity.

Recently in Spain, we observed a class of 3 year olds participating in art activities in which they were painting on an easel. This may seem to be a rather standard creative activity for 3 year olds. However the children were doing their painting in a room where reproductions of famous artwork hung on all the walls. Works by El Greco, Goya and Velazquez to name a few, surrounded the children. During group time, the teacher would hold up pictures of famous masterwork paintings for the children and they would name the artist and the name of the painting. To some, this may seem like a less than developmentally appropriate activity for 3 year olds. However the children got so much joy from the activity, it was hard to see it as anything but amazing.

These examples show the importance of the teacher's active participation in the development of activities, especially ones that involve creativity. "Canned" curriculum from the Internet or from a book is usually not of the highest quality to begin with. Fasko (2001) found that creativity is encouraged by more authentic curricular activities. In other words curriculum needs to be relevant to a child's life. A textbook or internet activity does not take into account a child's interests or context. A teacher needs to know their students in order to design good creative activities. The teacher needs to also learn how their sometimes well meaning attitudes can hin-

der the creative process.

Praise and Encouragement

Many teachers may find this contention hard to swallow, but it is not always good to praise a child for their creative work. We have heard many refutations to this contention such as:

If I don't tell them that their artwork is beautiful, they will stop painting! Children have a need to have an adult praise their work. They crave the attention!

It is cruel not to tell a child that they did great work!

When asked if any of these teachers had ever lied about a child's painting most had to admit that they had, but felt justified. However, we are not proposing that you do not interact with the child about the creative work. There is a difference between praise and encouragement and between making a judgmental evaluation of a child's work and making encouraging statements that promote the creative process.

While researchers suggest that educators should use encouragement instead of praise with students, the difference between the two can sometimes be subtle (Kelly, 2002). Praise focuses the child's assessment on how reaction that the teacher or other adult has to a particular work. Encouragement attempts to allow the children to feel the pride in their own accomplishments. Can you see the differences in the following statements?

- 1) I love your picture of a house.
- 2) You should be proud of the work you put into that picture

- 3) What a wonderful painting you have made
- 4) I noticed that you used all of the colors in the paint tray in your painting
- 5) Your mommy will love that drawing
- 6) Can you tell me about your picture? What is going on?

The odd numbered responses are empty praise. The even numbered responses are encouragement. Another big difference between praise and encouragement is that praise is one-way (Kelly & Daniels, 1997). It does not need a response from the child. Many times a response would seem arrogant. If a child responded to #1 by saying "Yes I love it too", that just would not seem appropriate. We are expected to be humble in the presence of such praise (especially if it might not be genuine).

Contrary to the belief that children like teachers because they tell them positive things about their creative works, Kelly & Daniels (1997) found that children actually had a lower assessment of teachers that used praise rather than encouragement. One possible explanation is that the students knew when a teacher was being insincere. Subsequent studies showed that as children became older, the less they like praise as a reward (Kelly, 2002; Pety, Kelly, & Kafafy, 1984). As children become more independent and they begin to develop more of an internal locus of control, or what Piaget referred to as "autonomy" (Kamii, 1991), they become more suspicious of praise and adults that over use it.

Alfie Kohn (1991), proposed five main reasons why teachers should stop using

the phrase "good job", and any other phrase that implies the same message.

Praise as payment – Kohn feels that praise is often used to manipulate children to engage in a behavior (such as cleaning up an area) only to make the adult's life easier

Creates a generation of "praise junkies" - Kohn also feels that too much praise is causing today's youth to crave the attention and approval of adults. Adults may like this, but it leads to a lack of self-determination.

Real teacher/parent and child interactions are squelched - Praise can remove the child's pleasure in sharing with the adult that they have succeeded in a task, and that the child is proud of himself/herself.

A child will lose interest in an activity—when the praise becomes repetitive the child loses interest in the activity, but gains interest in continually pleasing the adult.

True achievement is reduced - when a child is given praise for one task, but not the following task, they no longer exhibit a drive to succeed because the child does not want to run the risk of not receiving praise.

Praise relies on the assumption that children cannot conduct real self-assessment. Research however contradicts this assumption.

(Glazer 2007) found that children from about the age of eight onward, feel that the praise is not genuine when given by an adult or parent, especially when it is overused in the classroom and home. Other students stated that they felt the teacher may say nice comments about their work, but the teacher's tone voice is actually conveying their disappointment.

Gordon (2006) in Parent Effectiveness Training discusses the type of interaction that encouragement promotes and praise discourages. Encouragement promotes the child to talk about their work and discuss their creative process. As with many other interactions with children, we need to avoid roadblocks to conversations. Gordon suggests open-ended questioning and active listening as a way to promote children to interact. This allows the child's creative and active mind to develop. Other interactions that teachers have with children can stifle the creative process.

However, praise is not the only way that a teacher can unintentionally stifle creativity. Sometimes a simple suggestion can make all the difference. During another activity, the out the wooden blocks that were seldom used and were stored in a closet, were brought out for the children to play with. The children were allowed to use as many blocks as they wished to create a three dimensional structure. Perhaps the creative nature of this classroom was improving! Then the teacher made the seemingly harmless suggestion that they build either a house or an airplane and, predictably, all of the students, with the exception of two, made either a house or an airplane. Sometimes even giving sug-

gestions such as this in connection to an art piece can limit a student's free creative expression. Instead of having an open-ended activity that promoted creativity, the children engaged in an activity of "pleasing the teacher" which Alfie Kohn warned against. When one child was asked why they made an Airplane, he said

"Because Ms. Smith likes Airplanes"

Conclusions

The Arts Education Partnership, a national alliance of arts, education, business, philanthropic and government organizations, was formed in 1995 to promote the integration of the arts into the learning and development of every child (Bruce, 1998). The guiding principle that supports their idea of arts-based teaching is that the arts provide children with meaningful experiences through which they effectively perceive and understand other subject and content areas (Bruce, 1998). In other words, arts such as music, acting, constructing, painting, drawing, dancing, and sculpture can help children understand an abstract concept through concrete experiences relevant to their daily lives.

Although the research endeavor to reveal the scientific evidence for the effects of arts on children's learning is at its early stage, various research studies suggest that arts-based education can be beneficial. Visual art, dance, drama, and music all can be shown to have a positive educational effect on the student's academic performance, attendance, participation, creativity, affective skills, cognitive skills and social skills (Burton, Horowitz, & Abeles, 1999; Deasy, 2002; Horowitz, 2003; Kennedy,

2006; Project Zero, 2006).

Students who are in teacher education programs need to understand how important it is to support creativity in the classroom. Whether it is artistically or academically creative thought should be the goal of all teachers. Creative problem solving in math and science are directly related to creativity in the arts. They also need to know how easy it is to quash that same creative nature that makes learning a part of the natural human psyche.

Children in these early childhood years adapt quickly to what is expected of them. If they are encouraged to be creative, enjoy the arts, think for themselves and be self-reliant, their natural thinking ability will grow and flourish. If they are told to sit quietly and do repetitive, uninteresting, premade art projects and worksheets that have no relevance to their lives and which demand memorization, rule following and recitation rather than creativity and divergent thinking, they will begin to see school as a very boring place.

Creativity underlies all of human activity. The act of being intellectual beings is a creative process. The development of new knowledge and our growth as a species all rely on the creative process. Albert Einstein, the most famous physicist of 20th century loved the arts so much that he described music as an "extension of his thinking process, a method of allowing the subconscious to solve difficult problems" (Hansen, 2001). If we want to treat every child like a genius, we need to support creativity in all of its forms (Armstrong, 1998).

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