

Creativity in the Classroom: Divergent Thinking, Play, Creative Storytelling, and a

Wandering Mind

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Abstract

The role that creativity plays in the classroom can be difficult to identify for a variety of reasons. One reason is the difficulty in defining creativity. Here we are looking at day to day creative rather than larger, more artistic or genius level creativity. In addition, more attention is being paid to the creative process rather than creative output. Three areas that are being looked at are divergent thinking, play, creative storytelling, and a wandering mind. Some of these keys to the creative process, while they might be contrary to typical classroom setups, work hand in hand with intelligence to produce better problem solvers.

Keywords: creativity, divergent thinking, play, creative storytelling, wandering mind

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What is creativity, and what is its role in the classroom? Is our education system set up to encourage creativity? I think we all have a person in mind when we think of a “creative person,” but what kind of characteristics does that point to? What are the attributes of a creative person?

Creativity is such a large topic, and we have difficulty even defining it. One problem is the issue of scope. There is the idea of a “big-C” creative person, which would be considered a genius in their field. Einstein or Picasso, for instance, produced “big-C” work. But there is also “little-c” creativity, which we all use to come up with solutions to problems (Kersting 2003). When we think of creativity, I think it’s natural to think about big-C creativity, and when it comes to education, it’s natural to think about big-C creative people as just being born that way. Little-c creativity, however, is a much more manageable thing to think about in the classroom setting.

Even if we look at little-c creativity, it’s still a very broad topic. One definition of creativity involves the 4 P’s: the person, the process, the press, and the product (Batey 2012). In this instance, the “press” refers to external pressures on the creativity. If the goal is to think of creativity in the classroom, I believe the most useful portion of creativity to look at is the process. It seems a bit unrealistic to expect students to come up with truly creative product when they’re still learning the process, and looking at the person seems to be more in the big-C realm (a genius level creative person). The little-c creative process can be more looked at as a skill to be developed in a classroom setting. If the focus is the creative process in the classroom, then what are some of the hallmarks and foundations of that process?

Literature Review

Divergent Thinking

One foundation of the creative process is divergent thinking. Divergent thinking sits in contrast to convergent thinking, which amounts to treating new situations and problems similarly as previous situations and problems. If it worked before, it should work now. Divergent thinkers might question the basic assumptions of the problem, or the overall approach.

The problem with questioning the overall approach to the problem, or of looking for alternative solutions, is that this process can be met with resistance from convergent thinkers, or even from teachers. Like a toddler responding to every response with “why,” a divergent thinker might upset the normal functioning of a classroom. If the lesson is on why the sky is blue, a divergent thinker might ask “what is color,” or “how do we know what ‘blue’ is.” Questioning the premise can be helpful in looking for a creative solution to a problem, but unhelpful in receiving information from a teacher or a colleague.

Does this mean that there are useful times to use divergent thinking, and useful times to use convergent thinking? “Both convergent and divergent thinking are essential to the problem-solving experience, but when students are developing possible solutions to a problem, evaluation of each solution as it is presented tends to inhibit the flow of ideas” (Gomez 2007). This makes sense in that evaluation might be considered a non-creative enterprise, much like editing. Editing is about looking for errors, correcting form, rearranging words for clarity, and generally polishing the idea. In my own personal experience, I’ve found it very difficult to create and edit at the same time.

It’s up to a student, then, to decide when to use divergent thinking, and up to teachers to encourage it. “Although the processes of creativity are individualistic in nature, they are often

imitated and developed in-group settings, as when teachers use the technique of brainstorming” (Gomez 2007). Working creatively in groups is a useful way to create a situation where divergent thinking and creativity can blossom.

But how is divergent thinking measured? One way is through “The Alternative Uses Test of Creativity.” In this test, a person is asked to list as many alternate uses for an everyday object as they can think of in a given time frame. A typical example of an everyday object is a paperclip. “In this task, there is no single correct answer, and participants must branch out and produce as many unique and creative uses as they can” (Sovansky, Wieth, Francis, & McIlhagga, 2016). The idea is that the more varied the uses a person can come up with, the greater the amount of divergent thinking.

Play

Play does have a role in the development of divergent thinking and creativity. “A positive relationship between pretend play and divergent thinking has been supported independent of intelligence” (Fehr & Russ, 2016). What this indicates is that pretend play might be one indicator of creativity, or perhaps one element of its process. Particularly in regards to the process of creativity, play is a vital ingredient.

Thought not an academic, John Cleese has a great amount of experience with the creative process as a comedy writer and performer. He’s best known as a member of the British sketch comedy group Monty Python’s Flying Circus. In a lecture he gave on creativity, Cleese talks about this sense of “play” in his own creative endeavors, specifically in being essential in maintaining the open mode. He describes the open mode as “a mood in which curiosity for its own sake can operate because we’re not under pressure to get a specific thing done quickly. We can play, and that is what allows our natural creativity to surface” (1991). In other words, this

playful state of mind can lead more towards what we might describe as creative thinking. All of this suggests that encouraging a sense of play in the classroom would help students develop their creative process.

Creative Storytelling

One way to measure creativity is through evaluation of creative storytelling, which can also be called pretend play. Creative storytelling, compared to divergent thinking, has an additional layer to it. There's a framework to storytelling that isn't necessarily there with the general problem solving that benefits from divergent thinking. Because of this extra layer, "although a response might be unique, it is only considered creative when it is useful to the task at hand" (Fehr & Russ, 2016). A creative solution for the "Alternative Uses Test of Creativity Test" would be an answer that is uncommon. A storytelling idea is only considered creative if it fits inside the framework of the story.

In a classroom, the exploration of creative storytelling might lead to more creative group exercises or creative writing exercises. While this might at first appear to be more of a diversion from the learning in the classroom, it could, in fact, strengthen the creative process in the students.

A Wandering Mind

Another way to look at creativity is not being so focused on taking the shortest route to the solution. If your answer to the question is just the same as the last ten people to answer the question, then it wouldn't be described as a creative answer. Losing focus on finding the correct solution to a problem could also be described as something else: a wandering mind.

Generally, a wandering mind might be considered a negative thing. An inability to stay focused on the task at hand, particularly in a learning environment, could lead to missing the

information in a lecture. However, “this view of mind wandering as harming educational performance is consequence of a bias associated with the study of cognition in terms of information processing in analytical tasks, which is characteristic of the study of human abilities” (Preiss, Cosmelli, Grau, & Ortiz, 2016). This makes sense if you look at education as a process of filling a student up with information, or if you’re looking for a direct correlation between instruction and learned behavior. If a student isn’t paying attention and open to instruction, then they aren’t learning.

Another way to look at mind wandering is that it’s a potential period of incubation. “Spontaneous mind wandering is associated to creativity, particularly during the incubation of new ideas” (Preiss et al., 2016). Ritter and Dijksterhuis (2014) describe incubation and its relationship to creativity in this way:

Many anecdotal accounts and traditional theories of creativity have put emphasis on incubation. The basic phenomenon is a familiar one: we are working on a problem, we can’t solve the task, we leave it aside for some period of time—the incubation period—and when we return attention to the task we have some new insight that helps us to solve the problem.

A wandering mind can provide opportunity for this kind of creative incubation. If you’ve ever come up with a solution to a problem in the shower, that was potentially the result of incubation, and the result of a wandering mind. The issue, then, is what happens if creative thinking comes at the cost of paying full attention to the teacher in the classroom. For a teacher, this might mean being more lenient on students whose minds appear to wander. Even if it doesn’t look like our brains are doing work, that’s not necessarily the case.

Analysis

There is some debate about the role of creativity in learning and its relationship to intelligence. Early studies showed that intelligence and creativity had a correlation, with later studies showing that there is a limit to the correlation after a certain level of intelligence. What this means is that creativity and intelligence have a stronger relationship at lower IQ levels. In fact, creativity is considered just one of many factors to those who are looking to measure intelligence (Karwowski et al., 2016).

This lower level correlation seems to fit in with the concept of big-C and little-c creativity. Little-c creativity “includes everyday problem-solving and the ability to adapt to change” (Kersting 2003). That would suggest that divergent thinking and creativity would be useful to pay attention to in the classroom setting.

Discussion

Creativity is of particular interest to me because of my own background as a student and a musician. I was always a strong student, and I always tested well. By that measure, I would be considered to be intelligent. However, I also have a strong artistic and creative side, particularly when it comes to music. Because of this, I found myself looking at my classroom experiences through two different lenses. Creative expression in the classroom seemed like more of a bother to my teachers than an essential part of the learning process.

Of course, looking back on it now, most of my classes in elementary and high school were very much in the behaviorist mold. Success was largely dependent on the ability to reproduce what you were told on the test. Divergent thinking and creativity aren't required in a classroom where the teacher speaks and the student memorizes. In my experience, trying to express creativity in these settings was more than likely going to be met with exasperation.

Creativity, for me, was something that happened in the margins. Being able to memorize easily allowed me more time for daydreaming in the classroom. It's easy to think that this was just a waste of time, and that I should have been doing more "serious" work during this time. In doing the research for this paper, I found that this daydreaming allowed for more of my creative development. Rather than just being escapism, daydreaming helped strengthen a creative muscle.

A sense of play has been very important in my music career as a way to come to consensus with other musicians on the best solution for a problem. There's both an art and a science to music, and everyone doing the "right" thing can add up to be less than the sum of its parts. When looking for creative ways to make a song more exciting or more moving, the process involves a fair amount of play and open mindedness. If one musician is too quick to say "no" or "I don't like that idea," it shuts the whole process down. There has to be a sense of play in order for ideas to appear, and hopefully blossom.

In my work life, I often find myself using a sense of play and divergent thinking to solve problems. In my experience, if you get in a rush to get a job done, you don't leave yourself any room to invent a better way to do the job. I've had coworkers who worked very hard at their jobs, and in fact took great satisfaction in how hard they worked. What this didn't leave room for was creativity. They often solved problems with what I would call brute force, working overtime to complete projects. I found that by slowing down and examine the work in a larger context before the beginning of the process, I could come up with ways to streamline and make the work go faster.

What I would hope this would mean for classroom instruction is a little more time for play and more of an emphasis on divergent thinking. By understanding the importance of

creativity in our development, and recognizing some of the hallmarks of the process, teachers could help students develop stronger problem solving and a more productive way to operate in the world.

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