

STUDENT ENGAGEMENT

## Fuel Creativity in the Classroom with Divergent Thinking

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Recently, I showed a group of students in my high school art class a film called *Ma Vie En Rose (My Life in Pink)*, about a seven-year-old boy named Ludovic who identifies as female. Ludovic has an active imagination, but is bullied by both adults and other kids who are unnerved by his desire to wear dresses and play with dolls. The film challenged my students to broaden their understanding of gender and identity and led to a discussion about ways in which our imaginations are limited when we are forced to be who we are not. It also reminded me of other examples in which character is forced to choose an identity, such as the movie *Divergent*, based on the popular trilogy of novels by Veronica Roth.

In *Divergent*, a dystopian future society has been divided into five factions based on perceived virtues. Young people are forced to choose a faction as a rite of passage to becoming an adult. Tris, the story's female hero, knows that the price of choosing faction might mean being cut off from family and friends forever, and wonders if she truly belongs to any one faction at all. Like the character Ludovic in *Ma Vie En Rose*, Tris feels compelled to hide who she is, and knows that her behavior and ways of thinking might put herself and family at risk. Tris also knows that the most dangerous people in this society are considered those whose thinking is unrestricted and cannot be easily categorized; those people are called divergent.

### Defining Divergent Thinking

The word divergent is partly defined as "tending to be different or develop in different directions." Divergent thinking refers to the way the mind generates ideas beyond proscribed expectations and rote thinking -- what is usually referred to "thinking outside the box," and is often associated with creativity. Convergent thinking, on the other hand, requires one to restrict ideas to those that might be correct or the best solution to a problem.

Studies suggest (1) that, as children, our divergence capability operate at a genius level, but that our ability to think divergently decreases dramatically as we become adults. Perhaps this is as it should be to a certain degree, and as teachers and adults we would be concerned if

our middle and high school extended imaginative play into everyday life as would a four-year-old. Yet, many teachers at some point in their teaching career become frustrated by their students' inability to think creatively, and others -- as best exemplified by Sir Ken Robinson's famous Ted Talk (2), blame schooling itself for killing the imagination.

Divergent behavior is discouraged in school when students are scared to say or do the "wrong thing" in class. This is not surprising since schools often tolerate environments in which both teachers and peer groups keep in-check those who say and do things that are off-script, incorrect or inappropriate. This system of overt-convergence is enforced by a grading culture that systematically penalizes students for being "wrong," and by allowing a school environment in which students tease those who exhibit non-normative behaviors. So, if divergent thinking is key to being creative, it becomes clear why our students find being open with their imaginations and divergent ideas inhibited.

It must be said that there are valid reasons why divergent thinking is discouraged in our classrooms. Divergent thinking treats all ideas equally regardless of context or applicability and disregards rubrics, criteria or any process for assessment. There are also situations when divergent behavior might actually cause physical harm such as in chemistry class or on the playground, and we expect our students to display good judgment -- or convergent thinking strategies, so that can make correct decisions.

Teachers also might find divergent thinking and behavior a challenge when students ignore directions and rules, and if we are honest with ourselves, display personality traits that operate outside societal norms. These non-normative students, kids like the character Ludovic, who are transgender or who identify as atheists, for example, might be considered divergent in many of our communities. It is up to us as school administrators and teachers to ensure that good judgment extends beyond what might be considered current social norm and take into account what is best for our students' spirits, humanity and ultimate sense of belonging.

## **In the Classroom: Strategies**

Ideally, divergent and convergent thinking work in harmony with each other. The *geneplore model* (3) diagrams this relation between divergent, generative thinking and evaluative, convergent thinking. Helping our students understand these strategies and how they compliment each other also encourages metacognitive learning so that students better understand their own thinking and creative abilities.

As an art teacher, my job is foster an environment for creative work, and I believe the following five strategies might be useful for non-art teachers as well.

### *Strategy #1: Reversing the Question/Answer Paradigm*

Problem-based learning derived from an approach developed for training medical students in Canada but has since been used in K-12 education and other project-based learning environments. The premise of it is simple: Instead of asking questions to which there is a correct answer, ask students to create the problem. Students pose their problem by first tapping into their own wishes and goals that might have real-life results or be largely theoretical and in end in the modeling stages. Such questions such as "How can we grow

vegetables without using pesticides?" And, "How can we feed the world's population in a sustainable way?" Both encourage students to think divergently.

### *Strategy #2: Let the Music Play*

In my classroom students serve as guest DJs and play their music while we are in the studio mode of our projects. I love the atmosphere that music creates, but because I know how "tribal" adolescents often see each other in terms of musical taste, I introduce the guest DJ at the beginning of the term as a strategy for setting norms in the classroom in order to create an environment in which judgment of each other is deferred, restrained and more thoughtful. When students learn to defer judgment, the learning environment becomes open to other influences and ideas. When we are not afraid of being immediately judged by our taste, we are more likely to share ideas and opinions and therefore become less afraid to be divergent in our thinking and behavior.

### *Strategy #3: Inquiry-based Feedback*

Instead of value-based feedback, inquiry coupled by deep observation encourages a more open-ended and in-depth approach for evaluating students' work. Students are encouraged to minimize expressing their likes and dislikes, but to first spend at least 2 minutes silently observing, and then asking questions prefixed by phrases such as "I noticed that...", "why," and "how."

### *Strategy #4: Encourage Play & Manage Failure*

When failure is framed by reflection and iteration and less by penalty and closure, we are more likely to loosen up in our efforts and be less afraid to make mistakes. Once we are less afraid to make mistakes, we open up the environment for play and experimentation. In my Community Art class, I prepare my students to take risks in their own projects by creating one-day exercises in which they engage with the public in a safe but unpredictable way. One example involves asking other students outside of class to have their photo taken. The scary aspect of being rejected is overcome, and students gain courage to open up and take risks. If rejection does occur, students have time to reflect and strategize in preparation for "scaling up" their ideas or projects.

### *Strategy #5: Using Art Strategies*

I use a few art strategies such as collage, readymade, and pareidolia to open up the divergent thinking part of the students' brains. Students become less concerned by exact interpretation and more open to poetry, metaphor, and dream imagery in general. Here is a description of each one:

- **Collage (4):** When artfully done, brings disparate images together and finds relationships based on aesthetics, absurdity, or spatial arrangements and not their literal meaning or function in the real world. Once the images are de-coupled from their literal role, this opens up to non-linear thinking in general
- **Readymade (5):** Most famously practiced the artist Duchamp, involves taking ordinary objects and through language, playful renaming what they are or re-imagining how they function. Duchamp's most famous example is taking a urinal, flipping it upside down and calling it *Fountain*. I ask my students to do the same with the ordinary objects around them, and using the material, shape, or alternative functions of the object, re-imagine what the

object is

- **Pareidolia (6):** A phenomenon of looking at an object and finding semblance of something else that is not really there, much like seeing the shape of a dragon in the clouds, or noticing that a three-prong power outlet looks like a face. I show the students the short animated film, *The Deep* (7) by the artist Pes, in which ordinary objects are turned into mysterious sea creatures. I then ask them to take photos of examples of pareidolia around them. Students have fun re-interpreting the world

Divergent thinking strategies (8) offer the possibility of doing more than fostering a creative classroom environment; they can also help us better understand and appreciate difference in all areas of our students' lives. Young people like the fictional characters Ludovic and Tris might then find a world that is more accepting, and we could only benefit from the creative possibilities when young people are allowed to be who they are.

What activities or lessons have you used to inspire out-of-the-box thinking in the classroom? Please share in the comments section below.

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- 8 [instructionaldesignfusions.wordpress.com/2010/10/23/strategies-and-tools-for-divergent-thinking/](http://instructionaldesignfusions.wordpress.com/2010/10/23/strategies-and-tools-for-divergent-thinking/)

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