

## The Multiple Creativities of an Effective Teacher of Diverse Learners

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Artists and entrepreneurs get most of the creativity credit, but teachers are and need to be the most creative people of all. A teacher is, in a sense, dozens of other professions all rolled into one. To accomplish the many tasks set before us, we must become engineers, doctors, social workers, stage directors, artists, technicians, accountants, managers, marketers, and so on. We must solve oodles of problems and make hundreds of decisions as we teach, assess, reflect, and plan. So how do we do all these things with large groups of diverse students in a very limited amount of time? With *creativities*.

Effective teachers use four overlapping dimensions of creativity: discovering, problem solving, expressing, and interpreting. These *creativities* emerged as I worked with teachers who were succeeding in highly challenging classrooms and schools. Teachers described their thinking as they solved a variety of problems. I then made connections other professions and considered how the *creativities* of engineers, doctors, farmers, advertisers, artists, and others apply to teaching.

### The Need for Creativity

The primary reason for fostering our teacher creativity is improving learning for our students. Many struggling schools and classrooms have reached a point where only creativity can help us teach so many things to so many different students in the time allotted with the resources at hand.

A secondary reason is that we teachers need to feel that we are creative. We are like those eccentric artists who are driven by the zeal to express themselves through images or performance, or like scientists who seek to discover new worlds or solve environmental problems. Creating effective instruction fills us with energy and purpose. When students “get it” or produce excellent products or do well on tests and essays, we get energized. We see our “art” become what it was supposed to become.

And yet, many new and prospective teachers become quickly disillusioned when they realize that one of their main reasons for entering the profession—to teach in creative and engaging ways—is being squeezed away by scripted curriculum programs and lessons driven by multiple choice tests. Teachers in many settings have been stripped of their ability to express, through teaching, who they are and what they are passionate about. What we do shapes us, and if our work is hemmed in and overly controlled by policies and people who don’t know our students, then our effectiveness withers.

### Teacher creativity

Creativity is the process of coming up with a *new* and *useful* idea (Sternberg, 1999). This idea may take the form of a theory, process, or product that fills some need. *New* means that the creative idea hasn’t existed before in the given setting. For example, a teacher might come up with the idea of using an analogy of a clogged funnel to clarify a concept in physics. She had never seen or heard of that analogy before; she created it to fit her classroom context. She may bring a funnel into the classroom to further illustrate her point. *Useful* means that the innovation serves a purpose. The teacher had a particular goal in mind when thinking of the funnel analogy. If it works, it was creative. If it doesn’t work, it was a creative attempt, or “step,” as Thomas Edison called his first 1,100 light bulb trials. Most creative products and ideas are either: 1) ways to solve problems shared by a group of people, 2) ways to expand knowledge, or 3) ways to express ideas and thoughts to others. These three purposes exist in abundance every day in every successful school.

## **Stages of Creativity**

Most of the creativity literature suggests that it involves several stages. The four stages here are synthesized from well-known researchers of creativity such as Csikszentmihalyi (1996) and Sternberg (1999). These stages are not necessarily linear: teachers often move back and forth between them as we design lessons, teach, and assess.

*Stage 1: Immersion and Expertise.* This is the stage where we become saturated with experience, examples, learning, knowledge, and time with other experts. Many creative people spend loads of time reading, talking, and thinking about the domain. Immersion allows us to become experienced and knowledgeable experts in what *already* exists, so that we can then take it in new directions. For teachers, this means diving into teaching ideas that are far beyond what we learned in our credential and masters programs. It takes much more than a couple years to become an expert in a domain as complex as teaching.

*Stage 2 Incubation and Insight.* Once we know the domain, we also learn its problems and complex challenges. Many challenges are either new (students change every year) or so complex that we must let possible solutions emerge and *incubate*. Oftentimes, creative people describe how their creative ideas have emerged from some kind of repetitive, semi-automatic, physical activity. Activities such as showering, driving, and running, for example, occupy a small portion of the brain and allow the problems and ideas that are swirling around the mind to incubate just beneath conscious levels. In this way, innovative connections form. When the connections become ideas and rise to the surface, creative insights happen.

*Stage 3 Discernment.* But still, the insight may be silly or impractical. We need discernment. Discernment is the humbling process of analyzing how feasible and effective the potential idea will be. At this stage, we separate the good from the bad, the semi-possible from the truly impossible. This is the “skeptical stage,” in which we ask evaluative questions, such as: Is it worth the time? Has it been tried before? If so, why didn’t it work? How could it be tested on a smaller scale? What kind of results will emerge? Is the risk worth the time, money, and reputation? Effective discernment is highly related to Stage 1, immersion and expertise. The more expertise we have, the more quickly we can weed out the impractical ideas.

*Stage 4 Hard Work.* When the creative idea survives the gauntlet of discernment, we reach Stage 4, the stage of hard work, perseverance, and intense commitment. Stories abound of artists spending years preparing for a single painting, authors spending decades researching for one book, or doctors working all hours to develop a new medicine.

## **Four Creativities of Teaching**

After a brief description of each creativity, I include a table with three professions, how they use the creativity, and related questions for teachers. Even though they are described separately, the creativities overlap considerably.

### **1. Discovering**

Much like astronomers, anthropologists, and geologists, teachers use creativity to discover things and to expand their knowledge of their field. We look at clues and make inferences about what is going on. We experiment and create new tools for further discovery. Yet when we enter our classroom, discovering is rarely on our minds. Instead, we want students to discover what we must teach them!

To teachers, discovery has two meanings. The first is discovering who our students are: what they know, how they think, what they want to learn, and how they communicate. Students have a wide range of interests and learning styles that shape their growth. We must often be creative in getting to know our students. Their essays and bubble-in tests tell us just a fraction of what we need to know. I have known teachers who visit student homes, hold mini-interviews, eat lunch with students, give surveys, write letters, play table games (Whoonu), listen to music, and so on.

The second meaning of discovery is uncovering new ways to teach. Education is still in its early stages of development, and we still have much to learn about learning. We each must play a role in the advancement of teaching. We must engage in action research and cycles of inquiry over time in order to “sculpt” innovative and solid practices. Moreover, as culture and its tools change, so must our

teaching. As new ideas, products, and jobs emerge, the field of education must adapt and learn new things about how to best prepare students for the future.

Profession	How this profession creatively discovers	Teacher parallels
Biologist	Looks for life in strange places; observe behaviors under different conditions;	How can I discover what motivates my students to talk, read, learn? How can I improve conditions for learning?
Historian	Takes on different perspectives of historical figures to understand what happened; looks for bias	How can I step into my students shoes to create a better lesson on this topic? Am I biased in what and how I teach?
Cook	Tries new combinations of ingredients and spices	How can I consider student interests, standards, assessments, materials, and my interests to make the best lesson?

## 2. Problem Solving

Solving problems and overcoming challenges may be the most obvious use of creativity as it applies to teaching. Each day we see many problems of all shapes and sizes just waiting for us to solve. For example, a common problem in many classrooms is (a) the lack of motivation caused by the emphasis of preparing for state tests. One teacher (b) the lack of nurturing relationships between teacher and students. Both of these problems involve creating new ways to emphasize what is important to learn and how to work together.

Perhaps even more important is training students to creatively solve their own problems. We must avoid “educational enabling,” where we quickly hand the answer to the student to save time or to establish our authority over the content. We must instead creatively scaffold students’ abilities and/or wait for the student to figure it out.

Profession	How the profession creatively solves problems	Teacher parallels
Engineer	Tries different calculations to figure out how which materials are needed and how to fit all project tasks together within a tight time frame	How do I distribute the materials that I have and fit all of the necessary lesson activities into the week? How should I calculate students’ grades?
Doctor	Uses a variety of diagnostic tests and treatments to cure a challenging illness	How can I assess a student’s current abilities? Which teaching activities will be most effective for the student?
Social Worker	Works with clients to become increasingly confident and self-sufficient; helps them get along with others	How can I best monitor and support students to become independent learners? How can I build social skills as they learn?

## 3. Expressing

Effective teachers express ideas and emotions in clear and creative ways. A teacher must use many visual, verbal, and nonverbal symbols of language(s) to communicate a message to a variety of different students.

We should consider teaching to be a high form of art. Art uses a variety of symbols and media to powerfully communicate a concentrated message to others. Painters use figures and colors on a canvas, poets use words and figurative expressions, songwriters use music and words together. Most art is emotional. It touches and ignites feelings in the receiver, just as teaching does and should.

Clear expression requires much more than just talking. We know this, and yet we teachers still do a lot of just talking. We must be on a constant mission to expand our ways of expressing, including

hand gestures, drama, images, and music. There are three types of expression teachers should develop: (1) expressing the message of the lesson, the essential ideas and supporting topics; (2) expressing care for, love of, and valuing of students; and (3) expressing one's own personality, interests, and passions.

<b>Profession</b>	<b>How the profession creatively expresses</b>	<b>Teacher questions</b>
Author	Makes stories realistic and relevant to life; build suspense	How can I make lessons more like a story, in which students want to know what will happen
Painter	Plans ahead; exaggerates certain features; uses color, shapes, composition to convey a message	How do I “sketch” what I want to communicate with them? What do I exaggerate? How can I use color, shapes, and composition of walls and desks?
Reporter	Chooses images and information that is both needed and interesting to audience; weaves ideas together into a very short account.	How do I choose the most important objectives for my students? How do I express complex and abstract ideas in a concise way?

#### 4. *Interpreting*

When we interpret something, we use its clues to create a message that is relevant to us. Reading a novel, we might interpret a character's actions as heroic and selfless, a model for what we should do. In teaching, we need to interpret two main categories of clues. The first is the curriculum. Most curricula are daunting, consisting of many standards and objectives (not always clearly written), teacher resources, curriculum guides, lesson plans, and assessment options. Putting all of these together into clear and coherent set of lessons presents a creative challenge.

For example, a fifth grade teacher needs to figure out what it means to “examine” in standard 5.3.3, “Examine the conflicts before the Revolutionary War (e.g., the Pequot and King Philip's Wars in New England, the Powhatan Wars in Virginia, the French and Indian War).” The teacher considers why this standard was important enough to be included on the list, then looks at the tests, textbooks, and teacher guides to see how they cover the standard. The teacher considers student interests, past learnings, conversations with other teachers, the design of a new assessment, and then creates a plan.

The second category is interpreting students' actions and words. With many students and their many communication styles, the challenge is great. Yet we must strive to develop this creativity in order to understand the following: what our students have learned, what they want to learn, how they learn, and who they are. We must be ever open-minded to avoid quickly jumping to conclusions or placing a student in a box based on a few words and actions. At the same time, we must create classroom conditions that allow students to express what they have learned, how they learn best, and who they are.

<b>Profession</b>	<b>How the profession creatively interprets</b>	<b>Teacher parallels</b>
Director of Theater/film	Communicates to the audience the feelings of the characters; makes the plot powerful and realistic; involves the audience	How can I use mock trials and drama depictions? How can I involve students in the lesson?
Lawyer	Simplifies and negotiates; applies the general words of the law to each situation	What is the essence? How can I persuade students to see the importance of this learning? How can I apply the standard to student lives?
Archeologist	Make connections; seeks to be surprised; digs for answers and deeper questions	How should I interpret what my student wrote? How can I get students to dig into their lives to surprise me with what

		they know and want to know?
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## Conclusion

"Some transform the sun into a yellow spot; an artist transforms a yellow spot into the sun." This Picasso quotation rings true in education. We must not let narrow-minded policies and practices transform us and our brilliant children into simple spots. Using the various creativities, we can help all of our students reach their own heights of brilliance and creativity.

Csikszentmihalyi, M. (1996). *Creativity: Flow and the Psychology of Discovery and Invention*. New York: HarperCollins.

Sternberg, R. (1999). *Handbook of Creativity*. Cambridge: Cambridge University Press.