



Learning from Creative Teachers

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Outstanding teachers share how they teach creatively in an age of scripted lessons and accountability.

Creativity in learning is often highlighted as a skill essential for success in the 21st century. Daniel Pink (2005) notes that creative thinking is increasingly necessary to accomplish goals in our complex, interconnected world, and education researchers and psychologists tout the social, emotional, cognitive, and professional benefits of possessing creative abilities (Sternberg, 2006).

Despite this increased attention to creativity, we still have little understanding of how to nurture and support creativity in current classroom contexts, particularly creative *teaching*. The U.S. climate of high-stakes testing and scripted curriculums makes it difficult for education stakeholders to infuse creativity into teaching practices (Giroux & Schmidt, 2004). Teachers and administrators face the question of how to successfully integrate creativity into teaching practice when teachers have many pressures and little leeway.

As a part of our research at Michigan State University, we've been developing ways to integrate creativity into classrooms and explore the role of teachers in enhancing students' creative skills (Mishra, Koehler, & Henriksen, 2011; Mishra, Henriksen, & The Deep-Play Research Group, 2012). Our work goes beyond teaching generic techniques and seeks to genuinely embed creative approaches within disciplinary contexts (Mishra, Henriksen, & The Deep-Play Research Group, 2012). We hope to resolve a fundamental dilemma about creativity—that even as it's grounded in deep knowledge of the particulars of a field, it requires stepping outside these particulars. In other words, creative people have the ability to maintain a sophisticated knowledge of their field of expertise yet look outside the frames of that field to come up with new ideas. How do good teachers do this?

Learning from the Best

In trying to enhance the teaching practices of new and veteran teachers, it's useful to consider the successful classroom efforts and impressive records of skilled teachers. A key component of our research has been studying interviews we conducted with eight highly successful teachers—each of whom was a finalist or winner of the National Teacher of the Year award from 2000 to 2010 (Henriksen, 2011)—with an eye to their creative practices.

We chose these teachers for several reasons. For a teacher to receive this award, he or she must have been found to be "exceptional" or "outstanding." Winners would have received recommendations from principals, fellow teachers, parents, students, and other community leaders, and they would have a verifiable track record of excellent classroom practices and student achievement.

In addition, looking across applications for the National Teacher of the Year award for the same stretch of years, we found that more than 90 percent of finalists and winners highlighted creativity as a key teaching theme and gave examples of creative teaching in their practices. In addition, research suggests that "effective" teaching is essentially the same as "creative" teaching (Davidovitch & Milgram, 2006).

Analyzing these interviews helped us identify five key approaches or guideposts for creative teaching. Here, we provide concrete examples of creativity-rich lessons and practices that our interviewees used as they observed these guideposts—and we discuss how teachers and administrators might begin to do the same.

1. Connect Your Interests with Your Teaching

Research shows that the most accomplished, innovative people in any field are also highly creative in areas outside their professional lives (Root-Bernstein & Bernstein, 1999; Root-Bernstein, 2003). They actively draw on outside interests and creative ways of thinking to improve their professional practice.

The winners and finalists we studied had a variety of creative hobbies and interests, which they actively incorporated into classroom lessons and practices. Besides noting outside pursuits—anything from rap music to cooking to hiking—award winners reflected on how these pursuits affected their creativity, both overall and as teachers. For instance, teachers with musical and artistic interests found many ways to weave music or art into their teaching.

These professionals connected their hobbies and creative passions to ideas or subjects they teach by seeing and

deliberately exploring connections between their interests and school subjects. Sandra, a high school English teacher and recent National Teacher of the Year award winner, said,

Outside pursuits always factor into your thinking about your classroom or your students. I think that we teach who we are, and I know that I teach who I am. Whatever it is that interests you ... that energy manifests itself creatively in the fabric of the classroom.

Teaching with the arts naturally becomes a key part of such connections. This could mean incorporating design activities into teaching science or having students write songs to learn a certain piece of information. One teacher with an interest in photography, design, and visual arts has students create artistically designed "advertisements" for science concepts, such as a poster to sell the concept of chloroplasts (for photosynthesis) to an animal cell (animals don't have chloroplasts, so students must convince them of the value of having chloroplasts or a cell wall). Another teacher, who has an interest in rap and a talent for rhyming, has created engaging mathematics lessons that involve rapping about math ideas. These lessons have been key to getting his students excited about math.

The crucial point is not that these teachers used art or music (which some might find daunting), but that they turned their personal interests and creativity into valuable teaching techniques.

Teachers wove in not only their hobbies, but also their subject-matter interests. For example, a middle school algebra teacher with an interest in sociology began to integrate sociology into his word problems and math scenarios. He came up with problems and applications of mathematics that were relevant and engaging for his students.

Trying This Approach

The best way for teachers to start may be to take one step. Wherever possible, teachers should tap into their own interests and hobbies and begin to think of themselves as creative teachers and individuals. The interest area doesn't have to be a direct match with the subject matter. Consider areas of crossover, where two different subjects might touch on each other. For example, one high school English teacher taught a lesson on narrative movements in a text by Kafka by discussing how these transitions related to movements in a piece of music.

During both pre- and inservice programs, teacher educators should encourage new teachers to tap into their passions. Teacher educators might assign their students to plan a lesson connected to a certain subject matter that makes use of any hobby or outside interest. This lesson could extend from something as simple as incorporating music into class to something as complex as organizing students into special interest groups to argue for or against policies directly involving renewable energy. As teachers begin to consider how they can teach science through an artistic lens or work sociology into math problems, the curriculum becomes unique and interwoven with personal interests.

2. Link Lessons to Real-World Learning

Taking knowledge out of a vacuum and infusing it into an authentic experience ensures that creativity is grounded in relevant learning. All the teachers cited lessons they had taught that had real-world applications. The fact that the teachers viewed "real-world" learning as creative tells us that such teaching moments often feel fresh and bring in novel thinking.

One elementary teacher described how she often started the school day with a "sky watch," during which kids collected weather data:

When the first bell would ring, they would spread out on the school courtyard. We'd talk about the clouds and the humidity and the weather and the wind direction, and we'd collect scientific data. [Later] the kids would go online and send the data to scientists at NASA. It was a project going on all over the world, where kids were sending sky watch information to scientists.

Sandra's research and writing lesson had a realistic context:

My students do a grant project in which they create [mock] nonprofit organizations that meet the needs of a demographic group that cannot meet its "American dream." The students interview people from nonprofit organizations in the community. They compete with the other groups in the classroom to fund grants for their nonprofit, [applying to a] grant panel composed of actual community members.

Trying This Approach

Considering these two examples from teachers (out of many similar ones), we believe teachers of all subjects or grades should consider ways they might connect (even in small ways) ideas and topics they teach to events and contexts in the real world. The place to begin is often to just consider examples of how these topics already inhabit the world around students. For example, in what places might a teacher help students connect to science in the community? If the unit is on bacteria, can students collect and sample bacteria cultures from within their school environment or conduct a unit on food safety in the school cafeteria or a local restaurant?

3. Cultivate a Creative Mind-Set

In reflecting on their beliefs, most of the award-winning teachers noted that creativity was not a generic or detached skill, but a mind-set that affects how they see the world. They knew that insights they might have in one area can carry over into new areas of activity. So they maintained open-minded awareness of interesting things in the world around them, looking for innovative ideas for the classroom. Adam, a middle school mathematics teacher, noted,

"I'll often just be doing something else or I'll see something happen, and [I'll think], "Well, how can I relate that to teaching?" I'm always on the lookout for ideas. I've trained my mind to look at something and think about how it applies to teaching.

Trying This Approach

Teachers might stimulate their creativity by deliberately—perhaps for 10 minutes a day—observing the world around them, keeping their eyes open for new ideas. Most teachers keenly observe their classes and students. Extending this observation to look for ideas from other disciplines or from something they see, read about, or interact with in daily life is a good first step.

Open-mindedness also means considering other people's perspectives. A creative teacher imagines him- or herself in the position of students, asking how a particular class or group of students would want to learn something and what methods could make a topic interesting for that group.

4. Value Collaboration

Successful design teams or business groups often note that they develop their creativity through collaborative effort. Teachers in our study touched on a similar point. Mia, an elementary school teacher, highlighted the importance of gathering ideas and bouncing them off other teachers:

Anytime you have multiple brains focusing on one idea or one goal, the potential is exponential. You can start brainstorming ideas and bouncing them off one another. The difficult part is making sure you have time for this.

Teachers questioned the myth of the solitary creative genius. Creative inspiration can certainly arise in the course of individualized work or play. Often, however, having the opportunity to talk through existing ideas and get new ones from others is an excellent creative catalyst.

Jack noted how he helped build a collaborative creative community:

We started a group at my school for teachers; we began to meet in my classroom once a month. Everyone's ticket in the door was to bring to the table something new, something of their own to offer, so that we could share ideas and try out things that had been successful in other classrooms.

Trying This Approach

Teachers should seek out colleagues to ask questions of and share lessons and ideas.

It's important that administrators who recognize the need for creativity in teaching ensure time for teacher collaboration and give teachers space—physically and figuratively—to share with colleagues. They should set up a regular meeting time for teachers to get together and talk or share ideas. How this is organized may depend on the setting and the teachers themselves, but sessions should have a relaxed feeling. It's important to highlight creativity as a focus, such as by asking everyone to contribute an original idea from their own classroom to begin the dialogue or brainstorming ways that the arts or cross-disciplinary lessons might be woven into the existing curriculum.

Teachers understandably tend to partner with others who teach similar content. To think outside the box, it's good to open up conversations among teachers from different subject matters to discuss areas of crossover. The English teacher who taught literary movements in Kafka from the perspective of movements in a piece of music developed this lesson by working with a music teacher and that teacher's students.

5. Take Intellectual Risks

Another key theme that emerged from our interviews was the notion of intellectual risk taking in building a creative teaching practice. These teachers didn't teach haphazardly but were willing to try out new ideas and approaches in their classrooms and were open to failure. Trying new things enables educators to find novel, interesting approaches to teaching—and to find out which novel approaches work.

Sandra suggested that "intellectual risk taking" is tied to making frequent mistakes:

I need to create the kind of environment where students feel able to make mistakes and know that making

mistakes is part of our work and our process. [They need] also a willingness to ... be able to manage ambiguity. That's really important if you want to be creative because if you can't hold two thoughts at once without judgment, it's hard to get past either of them.

Mark, a middle school science teacher, explained,

Creativity needs to be about the ability to make mistakes, to learn from those. [When students] see that kind of risk taking and iterative process, I think it helps them understand how to do things well themselves. Ultimately, what students will gain from your class is not necessarily all content knowledge. Often, it's how you approach things.

Risk taking requires a school environment and leadership that allows experimentation, as Mark acknowledged:

My principal over the years has been very supportive in the fact that he's OK with me trying new things, and ultimately it leads to good results on objective measures of achievement. But he also sees the fire in the students' eyes, the passion for learning, and the excitement about being at school. [In many schools] it's that fear of "there's so much pressure right now to keep achievement high." When teachers are teaching in fear, they take few risks.

Trying This Approach

For teachers, becoming an intellectual risk taker comes down to trying new things in the classroom as often as possible. This doesn't mean teachers can't have some tried-and-true activities that always are a part of their practice. It simply means that teaching practice can only be creative when it's always evolving.

Admittedly, the current education climate can make risk taking difficult. School administrators play an important role in establishing a climate that accepts thoughtful experimentation. To empower teachers to be innovative and try new things in the classroom, school leaders must be open to listening. If a teacher has an idea or wants to try something new, a leader should be willing to listen, discuss, and collaborate on ways that idea might be implemented.

Another key point is to give teachers ownership of their successes. When a new idea is carried out skillfully, hold up the teacher who spearheaded it as a model of successful creativity. Having creativity modeled and publicly appreciated within the school culture is vital to cultivating it.

Calling All Stakeholders

Education stakeholders across the board should encourage these five practices for building a more creative teaching practice. These ideas provide practical guideposts for current teachers and administrators. And if teacher education programs adopted them, we might get a head start on nurturing creativity and risk taking among preservice teachers.

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