# Thriving in Academe

REFLECTIONS ON HELPING STUDENTS LEARN

Thriving in Academe is a joint project of NEA and the Professional and Organizational Development Network in Higher Education (www.podnetwork.org). For more information, contact the editor, Douglas Robertson (drobert@fiu.edu) at Florida International University or Mary Ellen Flannery (mflannery@nea.org) at NEA.

# Teaching Creative Thinking and More

Have you figured out how to teach your students the most important skill of the 21st Century? Here is a new teaching-learning paradigm that goes beyond active learning.

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## How to Master Mentoring from the Middle

Let's step into Professor Peabody's Wayback Machine for a quick trip to 2010, when two important events in our lives as teachers occurred. First, our state became first in the nation to adopt the national Common Core Standards (CCS), and the General Assembly doubled down with Senate Bill 1, which, among other things, mandated that all colleges in Kentucky align their general education and teacher preparation curricula with the CCS. Second, also in 2010, IBM sent out a survey to more than a thousand CEOs of some of our country's largest corporations asking what skills were the most important for colleges to develop in their students. As if to prove that secondary and higher education needed to respond to a changing business climate, the CEOs selected as their top choice creative thinking.

Aye, but there's the rub. Not one of the Common Core Standards relates directly to creative thinking (even though the revised Bloom's Taxonomy of learning, teaching and assessing in 2001 put **Creating** at the top). While England, Canada, and Australia have made the teaching of creativity a hallmark of their national educational policies, here in America we were not only not mentioning it, but also not figuring out if and how it could be taught.

Should it be taught and can it? The answer is: Absolutely! Read on to learn more about our new teaching-learning paradigm.

## Meet Charlie Sweet Hal Blythe, and Russell Carpenter

**Charlie Sweet** and **Hal Blythe** (charlie.sweet@eku.edu, hal.blythe@eku.edu) are co-directors of the Teaching & Learning Center at Eastern Kentucky University. Their 1,000-plus publications include 13 books, critical articles in academic journals from *Pedagogy* to *Prism,* and fiction in such magazines as *Ellery Queen Mystery Magazine.*

**Russell Carpenter** (russell.carpenter@eku.edu) is director of the Noel Studio for Academic Creativity at Eastern, where he is also assistant professor of English. Recent books include *Higher Education, Emerging Technologies,* and *Community Partnerships* (2011) with Dr. Melody Bowdon, *Cases on Higher Education Spaces* (2012), as well as *Introduction To Applied Creative Thinking* (2012) and *Teaching Applied Creative Thinking* (2013) with Hal and Charlie.

## A new approach to teaching creative thinking—and any other subject

Since The Pedagogy Channel (TPC) exists only as a glimmer in some educator's eye, and you can't yet download its soon-to-be most popular on-demand episode, *The History of Teaching-Learning Paradigms*, we're going to provide the Wikipedia version. Those desirous of a more in-depth treatment need only see our new book, *Teaching Applied Creative Thinking* (2013).

In the beginning was the **Sage on the Stage**—a/k/a the Lecture Method—wherein a male authority divulged from a podium his "take" on a given subject to a row-and-columned classroom of students who were supposed to passively scribe the wondrous knowledge. In the late 20th century, as democratization upheaved the traditional format, the **Guide on the Side**—a/k/a active learning—gained power with both male and female instructors sharing authority with students who were expected to work in groups and reflect upon their work to gain the wondrous knowledge.

Both paradigms produced pronounced weaknesses. The former required nothing more than students memorize mountains of information (almost all of which they would shortly forget) to regurgitate to the sage during test times. The latter often resulted

### TALES FROM REAL LIFE > FROM THEORY TO PRACTICE

When we first offered our Introduction to Applied Creative Thinking course, students seemed to fall into two groups. About 75 percent were excited about creativity and found it valuable in their lives and coursework. The others felt challenged by creativity and wanted to develop their skills. It was interesting to watch the two groups interact and even more interesting to watch their final projects—where students used creative thinking to solve a real-world problem—evolve over the semester. Several of the 25 percent had an especially meaningful journey in this new course. Creative thinking encourages growth in students. I recall their first brainstorming session, when a small group of students assembled to consider concepts for their major project. Seeing them struggling, I decided to join them to discuss their progress. They were interested in promoting fitness on campus but couldn't figure out how. After some discussion—and a few trips to the dry-erase board—I asked them to consider an equation: fitness + _____ = ? They suggested: fitness + library space = a healthier study space that promotes creativity. After a slow start, this team began to build momentum. The students ended up installing a stationary bicycle in the Noel Studio's Greenhouse and using video cameras to record students riding it while discussing the benefits of exercise on creativity.

in the almost total abdication of instructor power and knowledge and too much dependence upon alpha students to guide the lost tribes through the wilderness of group work.

## Adjusting to 21st-Century Realities

**TECHNOLOGY:** Recent estimates peg students transfixed by a monitor (computer, hand-held device, TV) for 8.5 hours a day. Simply put, why should students listen in class to Dr. Carpenter lecture on the history of brainstorming when they can find online more information than he could possibly deliver?

**TRADITIONAL CLASSROOMS:** After pointing out our ancestors walked 12 miles a day, John Medina in *Brain Rules* (2008) concludes that the worst possible educational setting is today's student-static, rows-and-columned classroom. In addition, research has shown the advantage of certain wall colors, natural light, and 72-degree temperatures.

**BRAIN RESEARCH:** Medina and others stress that students check out of lectures at the 10-minute mark. Neuroscience has also demonstrated the advantages of having both instructors and students in motion as well as the importance of both visual and multimedia approaches to aiding deep learning.

## Mentoring from the Middle—The Instructor's Roles

Probably the first movement away from the active learning approach came from Australian researcher Erica McWilliam. In her *The Creative Workforce* (2008), as well as other writings, she theorized on a **"Meddler-in-the-Middle"** approach that "positions the teacher and student as mutually involved in assembling and disassembling cultural products... Meddling is a repositioning of teacher and student as co-directors and co-editors of their social world" (88). However, McWilliam did not translate her theory into praxis, and her term "meddler" connotes more a gadfly than a positive authoritative force.

Building on McWilliam's model, the **Mentor-from-the-Middle** paradigm focuses on a peripatetic instructor who both literally and figuratively positions him/herself in the middle of the classroom, assuming six distinct, but inter-related roles.

**FACILITATOR:** The mentor is responsible for creating the course, aligning it to proper outcomes and running all classroom sessions, managing both the big-picture learning experience as well as responding to individual student needs.

**COACH:** The mentor breaks skills into skill points, motivates students to develop the necessary knowledge, determines the roles of various students, and acts as damage controller when things go awry.

**ARTIST:** The mentor promotes risk-taking to find solutions as well as the traditional "right" answers, adapts to changing situations, shifts perspective so as to view things from other points of view (including students'), and synthesizes the ideas, processes, and products of the learning experience.

**CRITICAL REFLECTOR:** The mentor displays metacognition of class proceedings, exhibits fair-mindedness, and shows students how to properly evaluate arguments.

**MODEL:** In all that is done, the mentor acts as a model leader and learner.

**SCHOLAR:** Effective mentors not only know the discipline and its pedagogy, but constantly demonstrates the scholar researcher frame of mind both by keeping current in the field and by publishing in it and with students when possible. The goal is to get students to join the scholarly conversation.

## Mentoring from the Middle—The Six Phases

Similar to the flipped classroom, mentoring from the middle involves at least six phases that can take more than one class period:

**INFORMATION GATHERING:** The mentor uses the web, print resources, and other forms of knowledge to develop both breadth and depth outside of and during class.

**CRYSTALLIZING:** The mentor leads students

## BEST PRACTICES > "YES, VIRGINIA, CREATIVE THINKING CAN BE TAUGHT"

According to the Robinson Report (2000), at age 8 a child's potential for creativity is 98 percent, but by adulthood that potential has dropped like a bad stock on Wall Street to 2 percent. Can secondary and higher education instructors keep the creative impulse firing on all cylinders? Tepper and Kuh (2011) emphatically assert: "creativity is cultivated through rigorous training and by deliberately practicing certain core abilities and skills over an extended period of time." Harang-Smith (2006) concludes the argument with, "If all individuals have the potential to be creative and if creativity is a process that can be dissected and therefore taught, then colleges and universities can work to create curricula, pedagogies, co-curricula programming and a general institutional environment to support creative development." And, don't forget, applied creative thinking involves problem-solving, which, according to Smith and Smith (2010) is another teachable skill: "Students can be taught how to approach choosing creativity as part of problem solving. Not only are students prepared for the post-education world, but as Beghetto (2010) notes, other benefits accrue: "Encouraging creative thinking while learning not only enlivens what is learned but can also deepen student understanding."

in analyzing, assessing, and synthesizing information into powerful and guiding concepts.

**CREATING THE PROJECT:** The mentor leads the class in deciding what project/product can be accomplished employing these concepts.

**COMPLETING THE PROJECT:** The mentor helps students actively make something.

**SKILL-MAKING:** The mentor determines what additional activities are necessary to transform abstract vocabulary and concepts into deeply learned skills.

**EVALUATING THE LEARNING UNIT:** The mentor figures out whether the total project and class have achieved the desired outcomes.

## Mentoring Specific Skills of Creative Thinking

The mentor can aid students in thinking creatively by emphasizing nine skills:

**SHIFTING PERCEPTION:** learning to regard a person, idea, or situation from multiple angles.

**PIGGYBACKING:** learning to borrow old ideas from others in order to form new ideas.

**BRAINSTORMING:** learning how to come up with many potential solutions to a problem.

**GLIMMER-CATCHING:** learning to capture that out-of-focus idea or barely perceptible sight or sound.

**COLLABORATING:** learning to work with others.

**PLAYING:** learning to develop a total openness to the world around us and have fun with it.

**RECOGNIZING PATTERN:** learning to discern the figure in carpet by weaving together separate strands into a coherent whole.

**USING METAPHOR:** learning to use the known to help you understand the unknown.

**GOING WITH THE FLOW:** learning how to let the creative process overwhelm you and take you with it.

## ISSUES TO CONSIDER

### MAKING THE CHANGE

**IS THE TRADITIONAL LECTURE METHOD DEAD?**

Deader than disco. While surveys reveal that 90 percent of today's instruction at K-12 and college levels is delivered through lecture, research tells us this time-honored methodology is ineffective when used alone. As early as 1968 MacLeish found that after just one hour the average student retained only 42 percent of the information presented and after 30 days, a mere 10 percent. Penner (1984) claims an hour-long lecture outlasts a student's attention span by 40-45 minutes, while Medina (2008) holds that if a student's interest in a lecture were a business, it would have an 80 percent failure rate. The Mentor-from-the-Middle paradigm doesn't call for a total scuttling of the lecture, simply a melding with other methodologies through mini-lectures (10-12 minutes).

**DOES THE MENTOR FROM THE MIDDLE SURRENDER TOO MUCH AUTHORITY?**

The new paradigm hinges on what we call "The Goldilocks Stratagem." While the traditional lecture approach invests total authority in the instructor and active learning formats too often lead to the instructor's abdicating authority to a greater than optimal degree, the Mentor-from-the-Middle strikes a "just right" balance. The mentor maintains control of the foundational principles of curriculum and class structure while collaborating with students, allowing them shared ownership of the products generated through class projects. After all, as Hieronymi (2012) claims, "Education is not the transmission of information or ideas. Education is the training needed to make use of information or ideas."

**CAN THIS APPROACH WORK IN ANY CLASSROOM?**

While we've been fortunate enough to have a state-of-the-art classroom (filled with moveable tables and chairs, screens on every wall, a portable smartscreen, and laptops for each student), we realized early that the principles of our approach can be effective in traditional settings—even the large lecture hall. In fact, we've spent a great deal of time working with colleagues to show them the best practices and how to implement them. Sometimes the change can be as simple as reconfiguring chairs to eliminate regimentation and being sure to circulate around the entire room rather than being parked behind a lectern; other times—in the lecture "arena"—the instructor might need to shift students into workable groups with whom s/he can interact. The essential element—regardless of physical configuration—is co-facilitation of the project.

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