

## **An Interview with Bernice McCarthy: Creator of The 4MAT® System**

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Bernice McCarthy is the Chief Innovative Officer and Creator of 4MAT and the Founder of About Learning System: A Framework for Improving Teaching. The world of instruction needed something new and that jolt came from Dr. Bernice McCarthy. Dr. McCarthy knew from her extensive teaching experience there had to be a style of learning that would reach all students. Traditional lessons taught with lectures, tests and rote memorization might work for some students while others need instruction with interaction and hands on activities. Armed with the desire to help every student learn, Dr. McCarthy founded About Learning in 1979. She has continued to present workshops and in-services on her system which has been adopted by many.

### **Key Words:**

4MAT, Improving teaching, About learning system. interview

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### **1) Bernice please tell our readers a bit about your background, education and experience.**

I grew up in Providence, Rhode Island and graduated from Rhode Island College of Education, received my Masters in Education from St. Mary's, Minnesota, and a Doctorate in Educational Administration from Northwestern in Evanston, Illinois. I have taught all grades Kindergarten to 12, including two years teaching special education, a department chair in language arts in a Middle School, high school teacher in Literature, Writing and Humanities, then a Principal of an alternative high school.

### **2) When did you first conceptualize your 4MAT Teaching Model?**

My interest in learning theory really flourished at Northwestern. I studied Carl Jung's work in psychological types, Kurt Lewin's learning cycle, David Kolb's work in learning style descriptions and research, John Dewey and Jean Piaget, of course, and Carl Roger's work in humanistic teaching and counseling. In addition I was intrigued with the leadership and change theories of Chris Argyris and Daniel Schoen. After my doctorate, I spent a year studying what was, in the early 80's, the new and exciting brain research on hemisphericity of Roger Sperry and Joseph Bogan.

### **3) What is it about teaching that you wish teachers could learn from your approach and how can they best apply it ?**

The key idea is the natural learning cycle and recognizing the different ways people learn. If a teacher designs instruction using the 4MAT Cycle, s/he moves students through the complete learning act. The progression of the questions central to each section of 4MAT: Why, What, How and If, cover the progression humans use to learn everything.

### **4) Tell us about this "cycle". How does it work?**

It is the combination of the two dimensions of learning, perceiving and processing juxtaposed, placed together, that creates the learning cycle. Perceiving is how people take in information and processing is how they transform it or make it their own. The overlay of these two dimensions forms the 4MAT Natural Cycle of Learning.

### **5) Is 4MAT about teaching, learning memorizing, or applying?**

4MAT is about teaching people through the natural learning cycle, the way we all learn. It is about moving people through a learning sequence that involves personal connections, key ideas, experiments, problem solving and creative adaptations.

**Can you provide some guidelines about instructional design? Is the first grade different than 12th?**

The guidelines are the questions the teacher answers when creating a lesson or unit: Why do my students need to know this? What exactly am I teaching here? What is the significant big idea, the concept, of this material? How will I design the practice so all my students master the learning? And if I am successful what will they be able to do they cannot do know? These questions apply equally to all grade and age levels?

**6) Is there research backing up 4MAT?**

Yes it is available in a CD from our office. We offer a 300 page Research Guide that includes all the articles and information on 4MAT and its impact. Here is one of our latest samples from the prestigious Cleveland Clinic as published in the Journal of statistics Education Vol 19, No 3 (2011)  
[www.amstat.org/publications/jse/v19n3/nowacki.pd](http://www.amstat.org/publications/jse/v19n3/nowacki.pd)

“This curriculum redesign demonstrates the feasibility of applying a theoretical framework to educational planning to transform a biostatistics course into a problembased learning experience. Overall, there was high praise for the new format.

Students commended the student-centered approach, the substantial student involvement/engagement and the heavy emphasis on application. As course director, I was astounded by the students’ initiative in their own learning and the breadth and depth of class discussion. The teaching experience was both exciting and challenging, as the discussions were student directed and less in my control... Problem-based learning requires more than just listening; students must prepare in advance and discuss/solve problems. The 4MAT framework helps design classroom activities to support students throughout the learning process. This approach supports motivated learners to acquire, apply, generalize and reflect on new knowledge. The model, however, applies to any discipline and its flexibility allows the incorporation of various teaching techniques. We hope to inspire others to build on learning theories and to engage students. Knowledge disseminated does not equate to knowledge learned.” —Amy S. Nowacki, Biostatistician, Cleveland Clinic

**7) What do parents and principals need to know about 4MAT?**

That it works for all learning styles and requires differentiation in skills practice to assure that all students achieve mastery.

**8) Is there a specific way you do assessments, or testing in the 4MAT system? Or a preferred system?**

4MAT requires both summative and formative evaluations and makes a strong case for the need to balance both. I call them On-the-Way and At-the-Gate. Learners need to know that they can learn at their own best pace and when teachers support learners with On-the-Way encouragement, the support makes a striking difference in their At-the-Gate results.

**8) Now, what term do you use—learning style, learning preference? Learning type?**

I use all three: learning style is a preference people have as they approach learning. Those preferences result in different learning types.

**9) Could you briefly discuss this “ Hemispheric Mode Indicator” and why is it important?**

Right- and Left-brain processing is part of a person’s style of learning. The Hemispheric Mode Indicator (HMI) raises learner awareness as to their strengths in both reasoning and intuition and what they need to work on for the necessary balance. Participants in our 4MAT Basic Course discover their style and their brain processing preferences and go on to examine the 4MAT Model in terms of both. We believe the Millennial Learner, (people born after 1982) need and even expect more creative and experiential forms of learning.

**10) My “student learning preference“ might be with a cold drink and some potato chips or popcorn. What does this say about me?**

That you are hungry maybe? Seriously I have not found such a connection.

**11) There are Teaching Style Inventories and Learning Style Inventories- which are more important?**

It depends on what you want to discover about yourself as a teacher or administrator. First, you need to discover your own style of learning, then to go on to an examination of how you teach. Are you teaching in the way you like to learn? Do you favor those students who learn like you do? What about the others? Are your teaching methods based on what your principal likes, or what you perceive your particular content requires? Or rather are you truly strategizing your teaching techniques to travel the learning cycle, so all your students get the balance they need?

We begin by giving teachers the LTM to assess how they approach learning and then we have them consider how this affects their teaching. We provide five days of Basic training followed by four additional days of Advanced Training for them to hone the skills to train other teachers in navigating the full 4MAT Cycle.

**12) Okay-what about technology, the Internet, computers and lap tops and ipods and pads. Where do they fit into your program?**

We are moving to integrate more of our courses onto the digital platform to give students access to our materials and information and to give teachers online tools for creating and sharing their own 4MAT designs. Our 4MAT online data base now includes over 4,000 lesson plans and units and that number is growing each day as more teachers are creating units using our web based software. We have complete 4MAT courses in Biology and Algebra and Geometry. We are exploring new ways of providing teachers and students with digital access to these tools. We are also working on an IPAD application for our software now and expect to introduce that in the next 4-5 months. These initiatives are all part of what we offer in 4MAT. Technology must be integrated into learning; our students demand it.

**13) I understand that there are some on line learning assessments- how do these work ?**

We have online two Learning Type Measures, one for adults and one for students ages 12 to 16. These survey tools profile the different ways people learn. Many universities are using these tools to raise student and teacher awareness of learning differences. The adults version is also used extensively in Police Training and the Correctional Industry and by leading organizations throughout the world, including Aveda Corporation, American Family Insurance, The Center for Creative Leadership, Granite Construction, and many others.

We also offer an assessment tool called the Hemispheric Mode Indicator for measuring Right- and Left-brain processing preferences and a Leadership Behavior Indicator, an assessment for assessing someone's approach to managing and leading others along with a "Teaching Style and Trainer Style Inventory" to assess how someone approaches the process of teaching or training.

**14) You have some 4MATION Instructional Design Software, can you describe it briefly?**

4MATION offers teachers specific guidance on how to design and deliver more balanced instruction by using the 4MAT Model. The Software makes it possible to learn the research-based 4MAT Method while creating more dynamic, engaging and balanced instruction. It also gives teachers access to an every growing database of original 4MAT Designs mentioned above. Teachers can access this data to see how this model applies to their own courses. As you create new lessons, the software guides you through the process, taking you around the cycle of instruction, effortlessly As you create new lessons that appeal to all four styles of learners.

**15) Relevance to Common Core- where does 4MAT fit in?**

4MAT teaching achieves the primary goal of the Common Core, to teach for competence. In the 4MAT flow from meaning to concepts to competence there is a perfect match to the rationale and teaching strategies of the Common Core. 4MAT also fits beautifully with 21st Century Learning Standards where students need to not only memorize information or facts but put them to use in real life settings and explore the creative use of learning. It helps develop the four Project 21 skills essential to 21st Century Learners: Communication, Collaboration, Collaborative Problem Solving and Creativity. This is where the Millennial Learner really lives and 4MAT is a perfect fit for these students.

**16) Can you take one subject area ( for example algebra ) and indicate how 4MAT would approach it.?**

We have a complete 4MAT 4 Algebra Course, as well as many others. You can review these at our home page at : . <http://www.aboutlearning.com/what-is-4mat>

