

1 **Name that TEXT** _____

2 *by Dan Rothstein January 13, 2012*

3 In the summer of 2010, *Newsweek* pronounced—on its cover no less—that the United States was
4 suffering from a “Creativity Crisis.” The coauthors of the cover story, Po Bronson and Ashley
5 Merryman, quite ably synthesized cutting-edge research about how to create the conditions for
6 promoting creativity and offered specific ideas on how to address the crisis.

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8 Conventional wisdom, they reported, perceives creativity as emerging almost spontaneously from
9 divergent thinking, that is, from the kind of thinking that can go off in many directions and generate
10 new ideas. New research, however, has shown that creativity also requires convergent thinking, the
11 ability to sharpen focus, to narrow down, to synthesize ideas and information. Schools, they argue,
12 need to offer students opportunities to do both divergent and convergent thinking.

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14 Add to these findings the *new article from the Harvard Educational Review*, in which Susan Engel from
15 Williams College makes a compelling case for promoting greater curiosity in schools. She calls for a
16 “shift in the way we see the traditional role of a teacher, from one who answers questions to one who
17 elicits them.”

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19 Eliciting questions from students is a noble goal. The ability to generate questions serves as a
20 renewable source of intellectual energy that makes it possible for students to continuously inquire,
21 explore, problem-solve and, indeed, *create* in setting after setting. But, far too few students learn to
22 ask their own questions.

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24 When my coauthor, Luz Santana, and I were writing *Make Just One Change: Teach Students to Ask*
25 *Their Own Questions*, we were struck by just how hard teachers—on their own initiative—were already
26 working to spark students’ curiosity and creativity. The teachers were spending hours, if not entire
27 weekends, trying to figure out just the right question to stimulate students thinking, to set off a
28 moment of great discovery, and to turn on all the light bulbs, even the ones that had grown dim over
29 time. Adding this challenge to their already heavy load of daily tasks left them bone weary and, even
30 worse, discouraged when their carefully crafted question turned on, at best, only one or two of the 20
31 to 30 light bulbs in the room.

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33 The teachers kept asking students questions, but began to wonder if there was a better way to set off a
34 spark of creative thinking in the classroom. They made it clear to us that they wanted an answer to this
35 question: What is the *simplest* way to promote curiosity and creative thinking in any classroom?

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37 In our work with the *Right Question Institute*, we developed, through a long process of trial and error,
38 the Question Formulation Technique. We saw that teachers were able to take the Question
39 Formulation Technique and quickly integrate it into their lesson plans. Teachers in vastly different
40 communities, teaching on many levels, soon saw new sparks of curiosity and creativity set off by
41 students learning to ask their own questions.

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43 A teacher with 33 years in the classroom in a large urban high school noticed that by using the
44 Question Formulation Technique when teaching a poem she taught for years, “the students asked
45 questions that had never before been raised.” And a young teacher, early in her career, in a primary
46 grade classroom in a small town, observed “my students amazed themselves, *and me*, by all that they
47 figured out ‘just’ by learning to ask their own questions.”

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49 For Hayley Dupuy, a sixth-grade science teacher in Palo Alto, CA, who uses the Question Formulation
50 Technique in her classroom, the creative component seems fairly obvious: “There is inherent creativity
51 in students asking their own questions...the process of having to think about one's own questions
52 requires creative thinking.”

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54 Savvy teachers like Dupuy are highly attuned to knowing quickly what works and what doesn't work
55 with their students. They don't need that explained to them. But, in writing the book, we struggled
56 with explaining why asking questions could have such a transformational effect.

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58 The research cited in the *Newsweek* article helped us see that the Question Formulation Technique
59 promotes both *divergent and convergent thinking*—exactly the two ingredients required to promote
60 creativity. Teachers in urban as well as suburban and rural schools whose students had weak reading
61 and writing skills demonstrated that their students became intellectually curious and moved to a very
62 high level of creative thinking when they became adept at asking their own questions.

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64 We also learned from teachers that when their students used another step in the process to name
65 *what* they had learned, *how* they had learned it, and how they could *apply* what they learned, they
66 often had creative breakthroughs in their understanding of ideas and materials. They had just used
67 another invaluable ingredient for creative thinking, *metacognition*, and that catapulted them directly
68 into the rarefied company of sophisticated thinkers. We took the exact same process and taught it to
69 students well equipped with advanced reading and writing skills (such as students at various graduate
70 schools at Harvard University, including the Law School and the School of Education), and they were
71 struck by how they could more effectively produce their own questions, improve them, and strategize
72 on how to use them.

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74 Sometimes the challenges in education are so enormous that they demand complex solutions. But, the
75 goal of sparking curiosity and creativity may be accomplished more simply and more directly, by
76 teaching students how to ask their own questions.

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78 *About the Author:* Dan Rothstein is codirector of The Right Question Institute (RQI) and coauthor of [*Make Just*](#)
79 [*One Change: Teach Students to Ask Their Own Questions*](#) (Harvard Education Press, 2011).