

gories), and elaboration of the ideas.

The figural is more objective. The student starts with a simple shape like a circle and tries to incorporate it in a more complicated picture. The results are judged on the same criteria as the verbal. Props and shapes are scrutinized constantly for effectiveness.

"They don't feel like tests," says Bonnie Cramond (PhD '82), a professor in the University's educational psychology department and a research fellow at UGA's Torrance Center. "As opposed to written intelligence exams, the Torrance Tests don't ask questions that inherently exclude some students. They are blind to culture; they can be given to a kindergartner or a grad student."

Asked how he has managed to be so prolific – he's written dozens of books and more than 2,000 published articles on creativity – Torrance is characteristically modest: "I've had a lot of time."

But the truth is, his curiosity burns as brightly today as it did more than six decades ago, even before he earned his undergraduate degree from Mercer, his master's from Minnesota, and his doctorate from Michigan.

Before Torrance demonstrated how creativity could be tested and accounted for as a legitimate aspect of intellect, IQ was the test of merit – to the exclusion of all else. If you had Cezanne's vision or Einstein's imagination, but you had trouble with math (Einstein flunked it in high school), you would miss out on all the learning opportunities gifted children have and, thus, have a tougher time reaching your intellectual potential.

Such scenarios puzzled Torrance, who began teaching high school in his hometown of Milledgeville in the late 1930s. He remembers encountering two rowdy Georgia Military College students, whom he knew had potential.

"It became my ambition to channel their energy," Torrance recalls. "And then I read *Square Pegs in Square Holes* by Margaret Broadley. It described how the boys were just 'too full of ideas' and 'like wild colts.' Their energy just needed to be harnessed."

Torrance laughs when he thinks back to how he helped them eventually corral their creativity: "One became a school superintendent, and the other was Secretary of Labor in Ford's cabinet."

Manifesto, the book, describes how over time his test subjects "struggle to maintain their creativity and use their strengths to

create their careers." The exhaustive research – which correlates test scores of 1950s elementary school students with what they achieved later in life – shows that factors such as war and raising families can be obstacles to a creative career.

"We found that after 30 or 40 years other things became more important than achievement, intelligence, and creativity," says Torrance. "I call these 'Beyond' characteristics, such as persistence, courage, willingness to take a risk, and loving and doing what you can do well."

The study led to the publication of the Torrance Tests – and his return to his home state as chair of UGA's educational psychology department. The Torrance tests, although refined over the years, have been the tests of choice ever since.

"Dr. Torrance's work gives us breakthrough information we mortals can pick and choose from according to need," says Krisel. "Parents learn how to support their children, teachers find ways to tap into the students' learning processes, and counselors discover ways to increase students' opportunities."

But as much as anything, the study confirms creativity as an aspect of intelligence. Based upon Torrance's vast platform of work, creativity is not just an extravagance or embellishment of personality; it's a critical life skill that all sectors of society – from hospitals to the military – teach in order to create better problem-solvers.

As director of the Air Force Advanced Training Survival School in 1951, Torrance learned that, under extreme conditions, the best pilots always demonstrated creativity.

"Whenever a person is faced with a problem for which he has no known or practiced solution, some degree of creativity is required."

It was obvious to him, then as now, "that people who employed creativity were the best at what they did. The best pilots were creative in their performance."

Fifty years later, the world has caught up to Torrance's thinking.

"The focus no longer needs to be whether or not it can be tested – we see now that it can

– but on its application," says Freddie Reisman, director of the Drexel/Torrance Center for Creative Studies at Drexel University in Philadelphia. Reisman, a former chair of the department of elementary education at UGA, founded the center in 1999 and says she doesn't believe there is another person who holds the distinction of having two centers named after them and focused on the essential tenets of their research. Reisman is now director of Drexel's School of Education. "We are now learning to combine creativity with everything."

It is with considerable humor that Torrance recalls how he wound up in educational psychology. Born on a Milledgeville farm in 1915, he walked and talked at a very young age. But he also had learning disabilities – mainly problems judging depth perception. Ironically, those disabilities were a turning point in his life.

"I couldn't plow a straight line," he recalls. "So, when I was about 13, my father said to me at the dinner table, 'It's plain to see that you could never earn your living on a farm. You have to get educated. And it's time you ate your peas with a fork.'"

Torrance's self-effacing nature contributed to his ability to communicate with and influence several generations of educators. Indeed, when you talk to anyone about Torrance – regardless of the task in front of them – they drop everything and say: "Absolutely, I'll be glad to talk to you about Dr. Torrance – anything you need to know."

There is an undeniable sense that those who have been taught by him, either directly or indirectly, are indebted to him.

"He continually proved himself a genius –

and not just in theory but in application, which affected thousands of teachers and millions of students," says Franklin-Smutney.

"His work will not perish because he genuinely wanted to see humankind progress." ■

