

YES

*How great minds make decisions*

YES

YES

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# FIVE

*taking business further*

Genius – Madness  
Trust – Hate  
Boom – Depression  
Crisis – Success  
Identity – Change

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# NURTURING *STRONG MINDS*

The creativity school in Leipzig, Germany, may not be producing Nobel Prize winners, but it is helping to create a smarter society.

Elena Rose is attending the BIP school in Leipzig, Germany.



The young Nils Wötzel in a theater performance. Nils was encouraged early in school.

By Hilmar Pogantatz / Photography by Noshe

**Nils Wötzel** is sitting in a laboratory in downtown Nashville, Tennessee. Mesmerized, he watches as three-dimensional protein models drift across his screen. What may look like just a complicated jumble of amino acids actually represents one of the most exciting research areas in all of the life sciences. As if being the most important building blocks of cells and organs wasn't enough, these tiny macromolecules are responsible for vital life-sustaining functions like blood clotting and fighting infection. Given his background, no one would have ever suspected that this now 26-year-old German would one day receive a doctorate in biomedical sciences from a prestigious American university and go on to work at one of the most prominent research facilities in the world. Little Nils Wötzel was just the son of a blue-collar worker on that first school day in 1989 when he set off to Public School No. 25 in Leipzig, Germany. He was up against a lot more than the Iron Curtain. His Goliath was the immense educational discrepancy.

Random coincidence, perhaps, but Nils was one of the lucky ones. His school had opted to take part in a pilot program developed by Professors Gerlinde and Hans-Georg Mehlhorn. These pedagogic experts believed that, by providing a stimulating environment, it was possible to foster talent and creativity in children, regardless of their socioeconomic background.

Children attending the four kindergartens and four elementary schools, including Wötzel's, were suddenly introduced to a virtual rainbow of creative classes. Wötzel took drawing, built scenery and even made a sword, which he later used as a prop for his enactment of Siegfried in the Nibelungen Saga. His newfound talent in chess taught him strategy. Performances taught him how to be part of a whole. "It changed my life," says Wötzel today. "I was challenged to think creatively. And creativity breeds excellence." The creative school for "Begabung, Intelligenz und Persönlichkeit" (talent, intelligence and character), or BIP, located off a four-lane

highway in Leipzig, was founded in 1997 amidst the turmoil of Germany's reunification. Though BIP may seem like a typical private school, it certainly doesn't much look like one. A three-story whitewashed concrete box with six poplars in front striving for the heavens, a truck rental agency across the way and a sign hanging in the front entrance: "Dear adults, we are big enough to take off our coats and get to classes ourselves. Please help us by letting us help ourselves." Signed: "Your children."

The almost 700 children running through the hallways of the private creative school are individuals in their own right. They play music, dance and do arts and crafts while their kindergarten teachers playfully teach them English, chess and literature. Of course, there is time for recess and a little afternoon nap, but the main motto is "Encourage and challenge." And it's working. The small customers are thrilled. "I never want to go back to the old kindergarten," a new child recently told his teacher, "because here, I have to do what I want."

Are they growing little geniuses here? Long before the reunification, the Mehlhorns pored over the biographies of Nobel Laureates only to discover that they had all been artistically stimulated as children. From early on, each of them experienced what Einstein called the joy of knowing "the revered curiosity of researchers."

**Elena Rose** is one such curious mind. The delicate girl with bright blue eyes and splash of freckles plays instruments like the the flute and piano, takes singing lessons and is as much at home in the choir as she is in the math Olympics. And, like Wötzel, she enjoys playing chess. Only 16 years old, she already speaks – besides German, her mother tongue – English, French and Arabic. And though her favorite line as Eliza in "My Fair Lady" is "I am a good girl, I am," she's not a poster child for the Leipzig BIP creative school. That's because every child there is learning how to be a creative thinker.

But Professor Mehlhorn assures, "We want to significantly raise the bar of what could be achieved under normal conditions." For everyone – not just the gifted. Any parent is welcome to register his child at any one of the 23 BIP facilities – they only have to be prepared to invest a good 300 euros a month in their child's future. There are no IQ tests to take and the general practice is "first come, first served," which has sometimes resulted in parents registering their children while the children were still in the womb.

The investment, however, can bring big dividends, because these children run a higher than normal probability of having above-average intelligence. Claims Mehlhorn: "After only two years, more than half of our students had a 99 percent higher IQ than other children of the same age." As the neatly groomed, white-bearded professor reflects that no Nobel Prize Laureates have emerged from BIP's ranks, his eyes start to sparkle: "Who knows? Maybe Nils Wötzel will make it one day."

**Colin Stoneking**, an 18-year-old American who has been attending the creative school for two years, would also like to be a researcher. Kneading his hands, a pair of deep blue eyes peering out below bushy eyebrows, the gangly youth ponders the question of how to define a computer language. Alongside reading, collecting minerals and programming, he loves math. It's no wonder Colin didn't feel challenged by public school. "I haven't been bored since coming here," says Colin seriously. Each class at BIP is made up of only 20 students, with groups of 10 hand-picked weekly to target individual talents. Colin isn't quite sure what his are, "but I am very interested in neurobiology."

And neurobiology is interested in him – and his younger schoolmates. Sabine Pauen, a developmental psychologist located in Heidelberg, Germany, is convinced that the human brain requires constant stimulation from birth on in order to promote neural interconnection. In her book "Was Babys denken" ("What babies think"), she notes, "We need to provide our children with a stimulating environment." And she's not →



Colin Stoneking and Maximilian Frömter enjoy the creativity programs.

→ the only one convinced of this. At the end of last year, the Education and Skills Committee of the British Parliament wrote, “We believe that the best education has creativity at its very heart” and warned that this issue should be taken “far more seriously.”

Kurt Fischer, an American developmental psychologist and pioneer in cognitive neurobiology, is also convinced of this. Through studies of children with one side of the brain missing, the Harvard professor has come to realize that “the brain is remarkably flexible.” And though artistic predisposition is attributed to the right side of the brain, even children without it can develop creative talents. As Fischer concludes, “apparently it is possible to teach kids creativity.”

A rich environment provides the backdrop for creativity. Walk into Class 2b’s school-room at BIP and the first things you will notice are three computers surrounded by a mountain of building blocks and a homemade terrarium full of grasshoppers and other insects. A closer look reveals an orange bowl filled with homemade herb quark (a type of fresh cheese particular to central Europe), books of wallpaper samples strewn about, board games, storybooks left open for further perusal, a miniature greenhouse with carnivorous plants and even a bird skeleton. All bearing witness that it’s just another day in creative learning.

“At schools like this one, it’s far more likely to get students engaged,” says Fischer, who is currently studying the learning model used by the Ross Schools. Located in New York and Stockholm, the Ross Schools take a similar approach, combining interdisciplinary studies with culture and art.

“When I go to a Ross School, the students there are not bored,” says Fischer. “That’s what it takes to make a good school.”

**Maximilian Frömter’s** earliest memories of BIP are very colorful: “We painted a lot of pictures back then,” recalls the brawny bas-

ketball player whose painting was selected to grace the invitation to the school’s enrollment ceremony. Today, he’s 18 years old and a returning student. His parents, not sure whether BIP would be able to get the accreditation needed to introduce upper grade levels,

decided to move Max to another school. And that’s when his problems began. His new teachers were completely indifferent to Max, and he nearly had to repeat a grade. As he remembers the school where he painted so much as a young boy, he says, “Teachers here don’t give you the cold shoulder. They are caring.”

Maximilian’s story, however, does raise questions: Having been so protected, will its students be able to deal with a dog-eat-dog world? Can they make it “out there” in the world of sports clubs, first jobs, public schools and large universities? Mehlhorn believes that about half of his students weren’t challenged enough in public schools and the other half were both psychologically and socially overwhelmed. “They needed more caring supervision,” says Mehlhorn. If these children should suddenly be dumped back into classes with more than 30 children, it is very possible that they would “not be able to find their way.”

But there is no evidence of that. On the contrary – acting and inventing give them the opportunity to discover their strengths. “They are very self-confident and are often leaders among their circle of friends outside school,” Mehlhorn emphasizes.

“The arts in general should play a huge role in education,” says the psychologist. As far as he is concerned, the current global trend of using standard tests, IQ tests and Pisa studies to rate students is absolutely the wrong approach: “Most tests only ask children to recite information they have memorized and don’t assess their ability to process it.”

And, if little geniuses are created in the process, then so much the better. Though no one knows the exact ingredients needed for making a genius, schools like BIP can at least scatter the seeds of a more intelligent society. The Mehlhorns’ mission has only begun. ■

Find out more > [www.mehlhorns.ch](http://www.mehlhorns.ch)

## Creative Schools – Worldwide

The Mehlhorn concept is currently only offered in Germany. However, individual schools around the world are cultivating creativity in children.

### ARGENTINA

**Aequalis Elementary School.** A private school located in Buenos Aires, its afternoon classes include fine arts, music, computer science and sports. > [www.aequalis.esc.edu.ar](http://www.aequalis.esc.edu.ar)

### CHINA

**Hong Kong School of Creativity.** The Lee Shau Kee School is a noncommercial, private secondary school specialized in preparing children for careers in creative industries like architecture, film, design, media, IT, acting and advertising. > [www.creativehk.edu.hk](http://www.creativehk.edu.hk)

### RUSSIA

**Sozvezdie Centers.** Russia’s first public school for gifted children was founded in 1992 in Moscow. Its curriculum is based on pre-Soviet-era educational models that focus on creativity, interdisciplinary studies and problem-solving. > [www.center-sozvezdie.ru](http://www.center-sozvezdie.ru)

### SWEDEN

**Tensta Gymnasium.** Based on the Ross concept (see below), the Tensta Gymnasium is a public high school located in Stockholm. > [www.tea.edu.stockholm.se](http://www.tea.edu.stockholm.se)

### UNITED STATES

**Ross School.** Located in the Hamptons, New York, the private Ross School offers classes from pre-nursery through 12th grade. Its curriculum is based on world cultural history and includes the arts, writing, health and well-being, and computer technology. > [www.ross.org](http://www.ross.org)

### WORLDWIDE

**Waldorf Schools.** The majority of Waldorf Schools are located in Germany, the U.S. and the Netherlands. Their curriculum is based on the teachings of Rudolf Steiner, which combine esoteric anthropology with a didactic approach aimed at equally promoting a child’s intellectual-cognitive, artistic-creative abilities. > [www.waldorfschule.info](http://www.waldorfschule.info)

**Montessori Schools.** The Montessori Method is based on child development theories introduced by Maria Montessori in 1906. Montessori is a highly hands-on approach to learning that employs the five senses, kinetic movement, spatial refinement, small and large motor-skill coordination, and concrete knowledge leading to later abstraction. Its challenge: “Help me to help myself.” > [www.montessori.edu](http://www.montessori.edu)

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NO