Innovation is the rule at Graland School

Spirit of empathy permeates K-8 school, sparked by alumni's invention program

By Mimi McMann
YourHub Contributor

"Innovation" is a buzzword in education circles, but at Graland Country Day School students are celebrating 20 years of programming that challenges them to tinker, create and innovate.

Two decades ago, Graland alumni and Denver philanthropist Charles C. Gates wrote a $1 million check to the school to endow a program based on his belief that children are natural problem solvers who aren’t afraid to take risks. The Gates Innovation and Innovation Program was designed to allow students the opportunity and resources to invent solutions to life’s everyday problems. The program continues Gates’ legacy with an emphasis on empathy.

"While continuing to lean on the original Gates core philosophy, coaches have implemented an effective protocol that helps students gain new skills in creative problem solving: design thinking," said Martin Twarogowski, Charles C. Gates director of innovative learning. Design thinking is a problem-solving process developed by Stanford University that originates with empathy — a trait that allows a person to envision multiple perspectives and to put others first.

Students are guided by teacher coaches to consider others’ problems and how they can design solutions for those challenges. They build prototypes and present their inventions at a spring expo. Inventions are judged by a panel of Denver professionals who award cash prizes to the top ideas; some students even get funding to pursue a U.S. patent. Twenty-two students own patents on their Graland inventions and four more are in the process of obtaining a patent.

Gates program alumni fondly recall their experiences.

"Graland’s Gates program taught me how to think about problems differently," said Will Caulkins, a student of physics, mathematics and computer science at Wake Forest University. "Instead of seeing problems as roadblocks to success, the Gates program encouraged me to view them as opportunities from which new experiences and achievements can be created."

Developing that type of resilience and curiosity along with compassion is key to Graland’s mission: preparing students to be engaged citizens and thoughtful leaders.

"Mr. Gates was not only cultivating the next innovators, he was cultivating the next leaders," said Josh Cobb, head of school. "Though the ability to empathize is the starting point of the design process, it is also very much the genesis of compassionate leadership. As I look to the future, we will rely on this convergence of invention and compassion to solve the dilemmas that are most threatening to our society."

While the Gates competition is instrumental in helping Graland promote the ideal of children as innovators, "the vision of Charles Gates was that curiosity and inventiveness would interweave into the school’s overall curriculum," said Jorge Chavez, an innovation specialist and co-director of the Gates program.

"The innovation team is constantly collaborating with teachers to find ways to use design thinking to deepen the learning throughout campus," said Elizabeth Ledy, an innovation specialist. "It all starts with empathy."

For example, in the Gates lab, kindergartners learning about Colorado’s western heritage use recyclable materials to design a product that will help a rancher, such as a Lost Cattle Finder or a Prairie Dog Hole Filler. Second-graders studying important figures in history create solutions that would have helped those people with their challenges. Seventh-graders build wooden “memory boxes” honoring an older relative or friend after researching the person’s life, challenges and accomplishments.

In concert with the Gates philosophy, Graland students are taught six skills identified by the school’s innovation team: empathy, creative thinking, critical thinking, grit, experimentation and collaboration. At the center of this approach is a celebration of the lessons learned through failure.

"My students know that failing is not a permanent condition," kindergarten teacher Liza Baker said. "It’s something that will help their brains make new pathways and actually result in them becoming stronger thinkers who show grit in the face of every challenge."

Parents of Graland students recently had the opportunity to practice failing alongside their children at Family Innovation Night. Families rotated through challenge stations to work on design problems that used the six innovation skills. Whether they succeeded or failed, they won when they learned from their experiences — as happens daily in Graland classrooms.

Mimi McMann is an associated director of communications at Graland Country Day School.