

Lessons Learned from Starting a STEM School

By Tim Gott, Carol Martin Gatton Academy of Mathematics and Science in Kentucky

It has been said that if you are fortunate, you will find a career or vocation that integrates your talents and passions in a meaningful and purposeful way. If so, I must be the most fortunate man alive. As Director of the Carol Martin Gatton Academy of Mathematics and Science in Kentucky for the past four and a half years, I have had the distinct pleasure of leading an amazing group of students and staff in a residential program for high school juniors and seniors interested in advanced STEM careers.

The years here at the Gatton Academy have been one of the most significant and life-altering periods of my professional and personal career. I do not mean to minimize the previous wonderful years I spent as a teacher, coach, counselor, advisor, consultant, and principal. Elements of my previous professional work prepared me to embark on this new educational journey. As I reflect on lessons learned over this experience, I want to share five core ideas that have influenced my life.

Sometimes you have to go slow to go fast!

I suppose when you are planning to start something, you would not normally expect to have a decade-long waiting period. However, this excessive amount of time served us well.

Dr. Julia Roberts began work on creating an academy in 1997, ten years before the Gatton Academy became a reality. She saw the need for an extension of the substantial work she had begun in the Western Kentucky University (WKU) Center for Gifted Studies. The Center was the perfect place to develop the concept of a residential school because of the many programs, such as summer camps for middle and early high school gifted students, already in place.

After gathering support from the WKU president and leaders in state government, Dr. Roberts began traveling the long road of securing the needed legislation and funding. After many ups and downs, the

Gatton Academy began to take official form in 2005 when funding was granted for renovating our building.

Communicating with and visiting other academies provided a wealth of support and knowledge in starting our program with a level of confidence. In the fall of 2006, staff members were hired to begin developing the policies and procedures for the program and recruiting potential students.

On a hot afternoon in August 2007, we celebrated the opening of the Gatton Academy with 120 brave student pioneers and a host of supporters from all over the state. It took longer than anticipated but the extended time helped us to do things right and to develop a significant grassroots support system.

Surround yourself with diversely talented people!

No one person has all the experience or knowledge necessary to run a successful school. One of the major factors in our early success has been the depth of wisdom we harnessed through our administrative staff.

Our assistant director of student life had substantial experience in three other academies, having been a charter member of one of those programs.

Our assistant director of admissions and public relations came to us having experience working with gifted students at summer camps, was named the outstanding WKU graduate student, and was a national and international forensics champion - experiences that put him at ease in any group setting or presentation.

Our counselor's residential experience and strong counseling background served us extremely well in dealing with all the challenges that will arise with young people.

Our residential life coordinator's experience in retail management provided relevant comparisons to non-



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educational environments that helped us develop the organizational structure of our residential program.

Together, we were able to handle the vast array of challenges and problems that come with starting a new program like the Gatton Academy.

Students rise to the level of expectation!

I heard someone say with regard to NCLB that while we are certainly not leaving any child behind, we may also be making sure no child gets ahead as well. Particularly in light of the emphasis on 21st-century skills, we have traditionally missed the mark on preparing students to be creative and critical thinkers.

Our students have soared because we have raised the ceiling on the courses they can take and we also provide rich experiences in research and in study abroad. They work alongside distinguished professors as they explore relevant and substantial real-life topics such as solar cell catalysts, wood lacquer polymers, parasite identification, and supernovae searches. As such, these students are developing those problem-solving and decision-making skills that so often are minimized in education today.

Another area of high expectation is our independent social environment. When students are treated like young adults, they demonstrate that they can thrive with more autonomy and freedom. While we provide a strong element of support in their daily routines, students must get to class, manage their schedules, deal with daily needs, and interact with other students and adults across campus. We have seen students step up to these responsibilities with real commitment. Of course there are moments of poor decision-making, but no more often than typical adult populations. We view these stumbles as true teaching and learning opportunities that help students move forward in becoming mature adults.

Gifted students are not exempt from the standard struggles of life!

A major “aha!” moment over the years for us has been the extent of student social and emotional issues that have arisen. While we were prepared to deal with the usual adolescent crises typical of all schools, the number of students who came to us with major life concerns surprised us. We see this, ironically, as a significantly positive result. One of our early tenets was the desire to help students in all areas of their lives, not

just their academics. So, as the movie *Field of Dreams* eloquently declares, “If you build it, they will come.”

We began by reaching out to every student to get to know each one personally. Then, through sessions designed to help students address emotional and social dilemmas, we built bridges for students to use to come to the counselor and other staff members with a whole spectrum of issues.

The lesson I take from all of this is that we adults unfortunately may minimize the depth of struggles students have and so we rarely provide them with meaningful resources to deal with these issues. But, when you do, the benefits are enormous.

Relationships are the most important things in life!

Without a doubt, the greatest gift from of the Gatton Academy has been the development of community. I personally have gained a huge extension to my family. Each student in his or her own way has left an imprint on my life and has found a place in my heart. I get an incredible sense of joy and satisfaction at commencement as we celebrate our graduating class. The accomplishments of the year, the growth in each student, and a huge sense of fulfillment surrounds the staff, students, families, and friends. It is not trivial or trite to say that genuine love develops over these two years at Gatton.

Ultimately, the experiences here at the Gatton Academy adhere to what some refer to as the law of the harvest – you reap what you sow. Every investment in a student is a seed of promise for tomorrow. Our hope is that we will continue to see phenomenal results in the years ahead as the Gatton Academy continues to provide a conduit for personal and professional growth for outstanding students from across Kentucky.

We believe the STEM community will certainly feel the impact of our having produced a substantial influx of bright minds. But, more important to us, we will continue to strive to create the deep relationships that will impact the lives of our students and staff in ways that we may never be able to fully articulate. Like the wind blowing across a wheat field, we may see the shape and form of these connections in the lives of each of these amazing young people for generations to come.