

**Asking Questions—the Basis of Self-Actualization and Problem-Solving in the Gifted Classroom**

**Harry T. Roman**

**Retired Engineer, Inventor, Author, New Jersey Distinguished Technology Educator**

*Continued from previous issue of News-Page, Dec. 2015-Jan. 2016*

**Classroom Activities**

*Here are some controversial examples to get those G&T students asking questions—Get them working in teams and empower them to have a “no-holds” forum on asking meaningful and balanced questions, pro and con, about topics like those listed below.*

*Remember to impress upon your gifted students the importance of asking questions that touch on the rich fabric of our civilization. Something I have written previously about which I call 360 degree problem solving—looking at the economic, social, technical, environmental, regulatory, legal, safety, and political aspects of a problem—is very important here. It is essential that you and your gifted students see this as a way to integrate their subject matter. To think and debate like responsible adults.....and future leaders of their communities.*

**Atomic Energy in the Home**

*After the nuclear age dawned, many eminent scientists and policymakers wanted to turn atomic energy into peaceful directions. Some promoted atomic energy sources (reactors) be buried in the basements of homes to provide electricity, heat, and hot water. Such power sources would last for years before needing replacement. What say your gifted students?*

**ID Card Technology**

*The technology exists to develop national ID cards that can be used for voting, identification, airport security, monitoring the whereabouts of citizens....etc. Is this a technology we should be championing? See what your G&T students think!*

**Solar Energy**

*Solar energy is dependent upon government subsidies of some sort either at the state or federal level to have an economic basis. Should this subsidy exist? Isn't it time to see if the technology can stand on its own? Tax dollars are used to make these subsidies. Should taxpayers have a chance to withhold their tax dollars for subsidies like this? What say the gifted students?*

**Working at Home**

*With the incredible advances in our digital economy, it could be feasible for most people to work at home or in regional centers dispersed throughout the nation and states. What does this mean for such things as transportation, our way of life, leisure time...basically, how is our culture transformed by no longer having to commute to work?*

**Right to a College Education**

*Many advocate the only real way to stop all the college debt that is hanging around the necks of college graduates is to make college free—arguing that a well-educated workforce benefits everyone in our economy. What does this mean for our economy and culture? Get your G&T students thinking about this!*

**G&T Services**

*Here is one to make your students think. Should all schools offer gifted and talented services to students in the district? How would this work?*

*If your students have suggestions for other important questions or problems to be considered....by all means do so!*

***"In all affairs, it's a healthy thing now and then to hang a question mark on the things you have long taken for granted." - Bertrand Russell***

*See information on Harry Roman's Latest Book, Just Published by Gifted Education Press:*

*How an Engineer Uses Math – Real World Practical Examples for the Gifted Classroom in Environmental, Power, and Energy Areas – Middle and High School (2015) by Harry T. Roman.*

*Excellent introduction to real world math, science and engineering problems. <http://amzn.to/1GEklCn>*

## Creative Makeovers in Your School

Harry T. Roman

Teacher, Author, Inventor, Retired Engineer

(Originally appeared in the book, "Solar Power, Fuel Cells, Wind Power . . ." by the author (2008, ISBN 0-910609-54-3). It has been modified for this presentation. Check out Harry's best-selling books at [www.giftedpress.com](http://www.giftedpress.com).)

My wife loves to watch those cable TV channels where professional home decorators come in and completely redecorate a house. This has given my lovely wife many ideas for me to re-do rooms in our home. So the show is keeping me quite busy when I am not writing. But I also have started to develop an interest in the show as well, realizing just how creative these folks are....and this gives me an idea for your G&T classroom. So what's wrong with having your gifted children decorate your classroom? I am seeing seasonal themes here in my mind. You can let them re-invent the classroom three times a school year; or for educational themes your students are studying—maybe something really cool.

Such an activity has all the elements of creativity and invention. There is a problem to be solved. There is a need to do it. And there is lots of planning involved. They could start with sketches and maybe diagrams to depict what they are planning. I am thinking perhaps 1/3 of the class involved at each season change so all students have a chance to participate. Like the professionals I see on TV, students should have a budget, say no more than \$50. Encourage them to use on-site materials and home-made stuff. They can present their preliminary plans to the whole class for their review and comment, just like the TV consultant does with their homeowner clients; and it would give your gifted students a chance to practice oral communication and presentation skills. In fact, before they even begin any planning, they can survey the class members for their thoughts about what they would like to see in the way of redecorating—specific colors, wall treatments, decorating ideas, use of recycled materials.....etc.

Document the classroom transformation by taking before and after shots. The team can make a scrapbook of their work and progress on the project.

### **It's Not Just for Classrooms!**

Why stop at classrooms? Do you have bulletin boards around the halls of the school that could be re-done with some creative themes? This brings back memories for me. Years ago, over 50 to be exact, I was the 8<sup>th</sup> grade bulletin board decorator for our school. Each month I had to come up with a new theme and color scheme to highlight the information posted there. Later when working part-time for a clothing store chain, and going to college, my first boss loved to have me do the big store display boards that hung over the wrapping station where I worked. I thoroughly enjoyed both decorating assignments, and I think your gifted students would too.

Maybe you can branch out and have your G&T students tackle larger decorating jobs like the cafeteria, or maybe the gym? Would it be possible to use some computer graphics software that might help students visualize what is possible and to see the effects of simulated color changes?

I wonder what would happen if you reached out to some big chain stores like Home Depot and Lowes to see if there is a possible partnership that could be established? These stores do have programs where they reach out to the schools. Check them out on the Internet for more information.

When we had our kitchen re-done a few years back, we had it simulated with some graphics software when we wanted to locate a new cabinet in a previously empty corner. It came out just great. Maybe someone from the store can stop by the school and talk about decorating and re-doing room spaces? Are there interior decorator firms nearby who might also want to work a bit with the students to teach them how to harness their creativity and turn it into real workable solutions? Perhaps one of the students has a parent involved in such activities who would be willing to visit with the class? Think of the spatial visualization, design themes, and math application lessons that could develop from this activity! Might you tie this "design stuff" to things that Walt Disney might use?

Think about teaming up with the science or environmental teachers in your school to see if gifted students can together create an indoor or outdoor design space where nature is a dominant theme. Here they could consider the addition of an ecological area to the school grounds—designing it, discussing the educational value of such a new space, helping to establish with your help some lesson plans for the new area, and determining how much it would cost to build the space. Maybe it could have a fishpond and fountain, beautiful plants and flowers, or a small greenhouse made from low cost materials? Parents might want to get involved too...encourage this. Make this an inter-disciplinary effort. Who knows, you just might be able to raise the money for the design! Check out some local resources and businesses that might want to help. It is possible they could contribute some materials for the students to use.

*Maurice D. Fisher, Publisher, Copyright © by Gifted Education Press, February-March 2016*