

GL2 is Leading the Way to...

Restore the Achievement and Competitiveness of Minority and Impoverished Students through Innovative STEM Learning Options of Choice for Families

PROBLEM STATEMENT

International Assessments show that U.S. students rank significantly behind their academic peers in other countries. Compared to the 70 countries that participated in the 2018 Programme for International Student Assessment, **the U.S. ranked 37th in math, 18th in science and 13th in reading.** Based on the Nation's Report Card for 2022, only 32% of 4th graders were proficient in reading, and just 27% in math.

For Minority students, performance scores were a disgrace with only 17% proficient in reading and 7% in math. These unacceptable results show that Minority and minority students will not be prepared to achieve success in higher grades, college or in future careers with employers that must compete in the global marketplace. This condition places the U.S. in a major disadvantage economically as students become the workforce of tomorrow.

This serious concern is voiced by many of our nation's Fortune 500 companies. They view this problem as one of the biggest strategic challenges we face as a nation.

More than 50% of children born in the U.S. today are of minority descent. Education in America remains unequal for minorities and those living in high poverty areas.

The ability of the U.S. to re-claim our previous role as a global leader in education and business depends on a strong commitment to provide **Education Options of Choice for Minority Families.** This requires new innovative program approaches that emphasize strategies to enable Minority students to be academically proficient. Students must be ready to compete with their international peers from positions of leadership and dominance in knowledge and skills.



Meet student and community needs with innovative After School/Summer STEM Programs

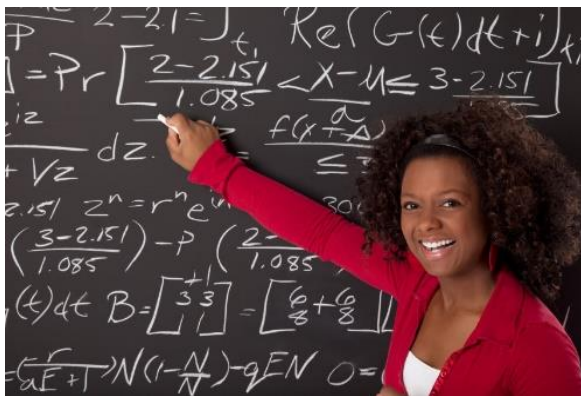
IMPROVING EDUCATION OPTIONS OF CHOICE FOR CHILDREN AND YOUTH WITH COMMUNITY SUPPORTED STEM PROGRAMS



Restoring our nation's economic stability and global leadership requires a much stronger emphasis on science, technology, engineering and math (STEM) education by expanding learning opportunities for minorities. Only 2% of minority students earn a B.S. degree in natural sciences or engineering by age 24. In 2011, the average annual wage for all STEM jobs was \$79K, well above the average of \$44K for non-STEM occupations. During 2005-2015, STEM jobs grew three times faster than non-STEM jobs.



Emphasizing New STEM Program Options of Choice at an early age has great potential to reverse the unacceptable trend in academic performance of our nation's children and youth. It offers a real strategy to significantly improve the knowledge, skills, and competitiveness of minority and students of poverty.



COMMUNITY STEM PROGRAMS provide parents' additional options of choice for their children's learning which will enhance the education provided by a community's schools.

Emphasize highly-engaging, inquiry-based, hands-on applications to enhance engagement

Community STEM Options of Choice must be unique and highly engaging to ensure success during implementation to:

- Meet student and community needs with innovative After School/Summer Program Options
- Emphasize STEM education starting at an early age (teach and learn in a 21st Century context)
- Merge education with real-life industry, business and community organizations involvement
- Use powerful information communication technology to gain a competitive learning edge
- Provide outstanding professional development to continually enhance instructional methods
- Emphasize highly-engaging, inquiry-based, hands-on applications to enhance engagement.
- Enable students to think, collaborate, create, and communicate in a global connected world.

COMMUNITY PARK DISTRICTS AND LIBRARY SYSTEMS AS OPTIONS

Community Park Districts, Library Systems, and churches provide very valuable informational, recreational, and social development programs for children and youth, but for the most part do not offer STEM programs. Their programs are viewed favorably by the community. As such, they are a best-case entity to offer **Community STEM Options of Choice for families.**

This will foster involvement by community organizations and provide the ability to coordinate effectively with schools. The new education options will offer additional time After School (ASP) and during the Summer (SP) to provide highly engaging projects that would be difficult to conduct during a school day. By linking the STEM ASP and SP Options of Choice, children will receive the optimum range of experiences to further develop their STEM interests, knowledge and skills.



BENEFITS OF COMMUNITY STEM PROGRAMS

In the 21st Century global economy, virtually all workers need to be STEM literate. Unfortunately, education in America is unequal for minorities and those living in high poverty areas. STEM has great potential to reverse this negative trend.



Emphasize STEM education starting at an early age (teach and learn in a 21st Century context)

To address the unequal education of Minority and minority children, and to foster real academic improvement for students performing below their grade level, *GL2 recommends that* communities conduct STEM After-School Programs (ASP) and STEM Summer Programs (SP) sponsored by park districts, library systems, or churches.

These organizations are excellent resources to sponsor programs because they serve important needs of the entire community. STEM Options of Choice will help prepare students to become community contributors and ready to lead economic development.



The STEM program options will expand learning time to continue projects started during the daytime, and offer mentoring to accelerate the development of all children. The after-school and summer programs will use powerful information communication technology during learning to provide a competitive edge.



They will integrate learning with real-life workforce experiences from industry, colleges, government, and community organizations. Their mode of operation will attract new and retain existing businesses to support education and will enhance the reputation of the community for excellence, not only in STEM, but as a leader serving education needs. Programs will supplement, not supplant school efforts. The ASP and SP programs will provide industry and business a real role to help improve the academic performance of children including the ability to experience career pathways. This emphasis will result in a strong sense of local pride.



The ASP and SP STEM Programs will enable the community to serve as a state and national leader for innovative excellence in STEM education for minority and impoverished students.



Merge education with real-life industry, business and community organizations involvement