

## **How can education be improved with Creativity and Critical Thinking. Issue #4 WP**

What are the relationships if any between affinity for creativity and problem solving between racial groups that need to be identified that does not feed into eugenics theory? What do data suggest for opportunities in STEM educational improvement for a diverse student population?

A layman would describe critical thinking as the analysis of data and information to form a judgement that can determine choices of options between alternatives. It is something most of us do regularly at surface levels, but rarely employed at K12 education levels that can affect problem solving, career paths, or the social order for example.

A recent report from the Black Inventor's Hall of Fame funded by **Lemelson Foundation** indicates,

The importance of starting STEM exposure and education at an early age, potentially as early as 4th - 5th grade can build interest, confidence, and a strong foundation in problem solving and critical thinking. The report emphasized the importance of developing not only technical skills but also essential soft skills, such as critical thinking, collaboration, and problem-solving, to prepare students for successful careers in STEM fields

The invention process, for example, is merely problem solving or making a new thing that comes from critical thinking leading to creativity. Creative thinking is all about developing innovative solutions to problems. We approach this topic as technologists and educators with a desire to advance the learning of students historically underrepresented in science.

### **Focus Areas**

Submissions should present research-backed insights, evidence-based practices, or real-world case studies addressing the following topics:

- **Fostering Inquiry-Based Learning** - Encourage students to ask questions and explore topics beyond standard curricula. Use of open-ended problems that require creative and critical solutions. Promotion of project-based learning, where students can experiment and innovate.

- **Integration of Real-World Applications** - Connect classroom lessons to real-world challenges to make learning more relevant and allow students to work on community-based projects that require creative problem-solving. Connecting classroom lessons to real-world challenges to make learning more relevant.
- **Use of Cross-Disciplinary Approaches** - Combine subjects like science, arts, and humanities to develop creative and critical thinking.
- **Encouraging Risk-Taking and Experimentation** - Create a safe environment for students to express unconventional ideas without fear of failure and reward effort, originality, and innovative thinking.
- **Incorporating Technology when appropriate** - Use technology tools to carefully facilitate creativity, such as digital design platforms or coding software. Leverage AI tools to help students analyze data critically and generate creative solutions.
- **Creating a Culture of Curiosity** - Design classrooms that inspire curiosity with visual aids, hands-on activities, and dynamic learning spaces. Celebrate curiosity by showcasing creative projects and innovative solutions.

Incorporating creativity and critical thinking in education prepares students for the complexities of the modern world by enhancing their problem-solving skills, adaptability, and ability to innovate.

This call encourages education experts in think tanks, consortia of STEM education pedagogy, higher education, and others considered as experts to submit articles in response to the call for articles of about 1,200 - 2,000 words in length by **October 1, 2025**, submit your article or questions to Publisher at, [info@schronicle.com](mailto:info@schronicle.com).