

## FUELING THE FLAME OF SCIENTIFIC CURIOSITY: RESEARCH-PROVEN STRATEGIES TO INCREASE STUDENT INTEREST IN SCIENCE

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Nurturing a love for science among students is vital for fostering scientific literacy and inspiring future generations of innovators. Are there evidence-based strategies that have been proven to enhance student interest in science, igniting their curiosity and passion for the subject? Let us explore them one by one.

### Inquiry-Based Learning

Inquiry-based learning actively involves students in the scientific process, promoting curiosity and deep engagement. A study by Areepattamannil (2020) found that inquiry-based instruction led to increased interest and motivation in science among students. By encouraging hands-on investigations, questioning, and problem-solving, educators create opportunities for students to explore scientific concepts and develop a sense of ownership over their learning.

### Authentic and Relevant Contexts

Connecting science to real-life contexts and societal issues can significantly enhance student interest. A research study by Sadler (2009) demonstrated that presenting science in authentic and relevant contexts increased students' motivation and engagement. By showcasing the practical applications and relevance of scientific knowledge, educators can help students understand the impact of science on their lives and the world around them.

### Role Models and Mentoring

Exposure to diverse role models and opportunities for mentoring can inspire students to pursue careers in science. A longitudinal study by Paglis et al. (2006) revealed that positive relationships with mentors and exposure to professionals in the scientific field positively influenced students' interest in science. By connecting students with scientists, engineers, and other professionals, educators can provide valuable role models and mentors who can share their experiences, provide guidance, and inspire students to pursue scientific pathways.

Increasing student interest in science is vital for nurturing a scientifically literate society. By implementing research-based strategies such as inquiry-based learning, authentic contexts, and role model engagement, educators can fuel the flame of scientific curiosity, fostering a lifelong passion for science among students.

#### *References:*

- Areepattamannil, S., Cairns, D., & Dickson, M. (2020). Teacher-directed versus inquiry-based science instruction: Investigating links to adolescent students' science dispositions across 66 countries. *Journal of Science Teacher Education*, 31(6), 675-704.
- Paglis, L. L., Green, S. G., & Bauer, T. N. (2006). Does adviser mentoring add value? A longitudinal study of mentoring and doctoral student outcomes. *Research in Higher Education*, 47, 451-476.
- Sadler, T. D. (2009). Situated learning in science education: socio-scientific issues as contexts for practice. *Studies in Science Education*, 45(1), 1-42.