

Evaluation of NSERC Science & Engineering Promotion initiative: PromoScience

PromoScience projects increase youth exposure to, interest in, as well as their skills and knowledge of STEM

Students demonstrate perseverance in tasks, ability to articulate reasoning & critical thinking, and willingness to use scientific tools & language, or to share & explore ideas.

PromoScience projects align with the philosophy of Informal Science Learning

Hands-on & interactive activities help youth establish connections between STEM and daily lives.

Activities are tailored to make them more accessible to the diverse identities, interests, & beliefs of diverse Canadian Youth.

Funding received through PromoScience has improved the capacity of organizations

by allowing them to reach more young people and teachers, target underrepresented groups, increase the geographic reach of their activities & the scope of their programming, & strengthen existing partnerships.

The measure of impact of tailored activities is limited

While the majority of grantees report targeting underrepresented groups, the evaluation cannot accurately describe how programming is tailored to make activities accessible to all, without barriers to identities, beliefs or interests.

The understanding & distinction between general & specialized training appears unclear across grantees

While teachers express greater perceptions of impact related to specialized training, the evaluation cannot accurately determine the nature of training offered.

Making STEM attractive & inclusive

Supporting informal science learning is important especially for youth from underrepresented groups, primarily Indigenous girls and youth, but also youth living in rural or remote areas, visible minority youth or youth with disabilities.

PromoScience offers the opportunity to participate in activities that increase engagement, stimulate interest & deepen skills and knowledge.

Relevant and necessary role for the federal government & NSERC

PromoScience is the only source of public funding available across the country that, regardless of the scientific discipline, supports informal learning in STEM with a particular focus on traditionally underrepresented youth.

By supporting informal STEM learning for all young Canadians, NSERC is demonstrating leadership that is helping to fill gaps in the formal STEM education system at the national level.

RECOMMENDATION 2

The evaluation recommends that NSERC, in consultation with the ISL community, explore the possibility of providing more support to grantees to enhance their monitoring activities.

Measuring the impact of the program remains a challenge, particularly in documenting some key aspects of the program such as tailoring activities for a diverse group of participants and the level of impact that can be reasonably expected from these funded activities.

RECOMMENDATION 3

This evaluation recommends placing greater emphasis on offering comprehensive/ targeted and high impact training for teachers in consultation with the ISL community. Teachers are found to play a significant role in encouraging youth to pursue STEM education. Enhancing the capacity of teachers to implement meaningful and impactful teaching strategies related to STEM is part of the PromoScience funded projects; however, at the time of the evaluation, few organizations were focusing on delivering comprehensive training activities.

RECOMMENDATION 1

This evaluation recommends the continuation of the program.

PromoScience continues to be an appropriate role for the federal government as it helps to support the development of a positive STEM culture in Canada.