

IISME commissioned Quality Evaluation Designs (QED) to conduct an external evaluation focused on how IISME Summer Fellowships change teachers' perspectives and behaviors related to their teaching, professional development, understanding of workplace culture and skills, and career decision-making. To address these questions, QED interviewed 25 randomly selected teachers, and based on those outcomes developed a comprehensive evaluation instrument.

- Surveys were emailed to 981 teachers who have held IISME Fellowships since 2001, when our prior external evaluation was completed.
- 101 emails bounced
- 476 of the 880 teachers who received the emailed survey responded, for a strong response rate of 54%.

Overall evaluation results reflect excellent success in all of IISME intended outcomes. Nearly 20% of teachers rated the Professional Development associated with IISME *transformational*. Highlights of the survey outcomes include:

High impact in many areas

- Overall, survey results are extraordinarily positive across a broad range of variables.
- Consistently high results on related variables reinforce an over-arching conclusion that the IISME experience is uniformly effective across a broad spectrum of teachers with diverse teaching contexts, years in the field, subject area expertise, and life experience.

Strongest impacts

- Workplace Readiness – increased awareness and integration into classroom of critical thinking, technology, and teamwork/collaboration skills.
- Professional Development – enhanced technology knowledge and skills, understanding of workplace expectations of students, and professional confidence.
- Teaching Knowledge – greater knowledge of real-world examples and better advising for students about STEM jobs.

Student Impact

Teachers report that their IISME fellowships have an impact on their students, including increased engagement in subject matter, and increased interest in STEM careers. Comments include:

- *Students are surprised that there ARE real world applications for subject matter.*
- *They have more buy-in to a project when they learn the project is related to real world goals.*
- *More focused upon gaining skills to enter desired career.*
- *Struggling students who have an interest in science were more motivated to explore what they would need to do to actually seek a career in science.*
- *Interest for computing technology increased*
- *More interest in biotechnology*
- *Student interest in biological research and careers increased*
- *Better attitude overall towards science*

Principal Feedback

In addition, QED interviewed school principals who have supervised former IISME Fellows within the past 5 years. School principals reported:

- IISME Fellowships energized and inspired teachers, as well as their colleagues, students, and even administrators.
- There was growth in teacher leadership, professional development, curriculum/instruction, student engagement, and career advancement.

After analyzing the results of the survey, QED reported that they “reflect a highly efficacious program that is consistently well-implemented and strongly valued by teachers and principals.”