Global Evaluation Solutions

Evaluation Consultants

Evaluation Proposal:
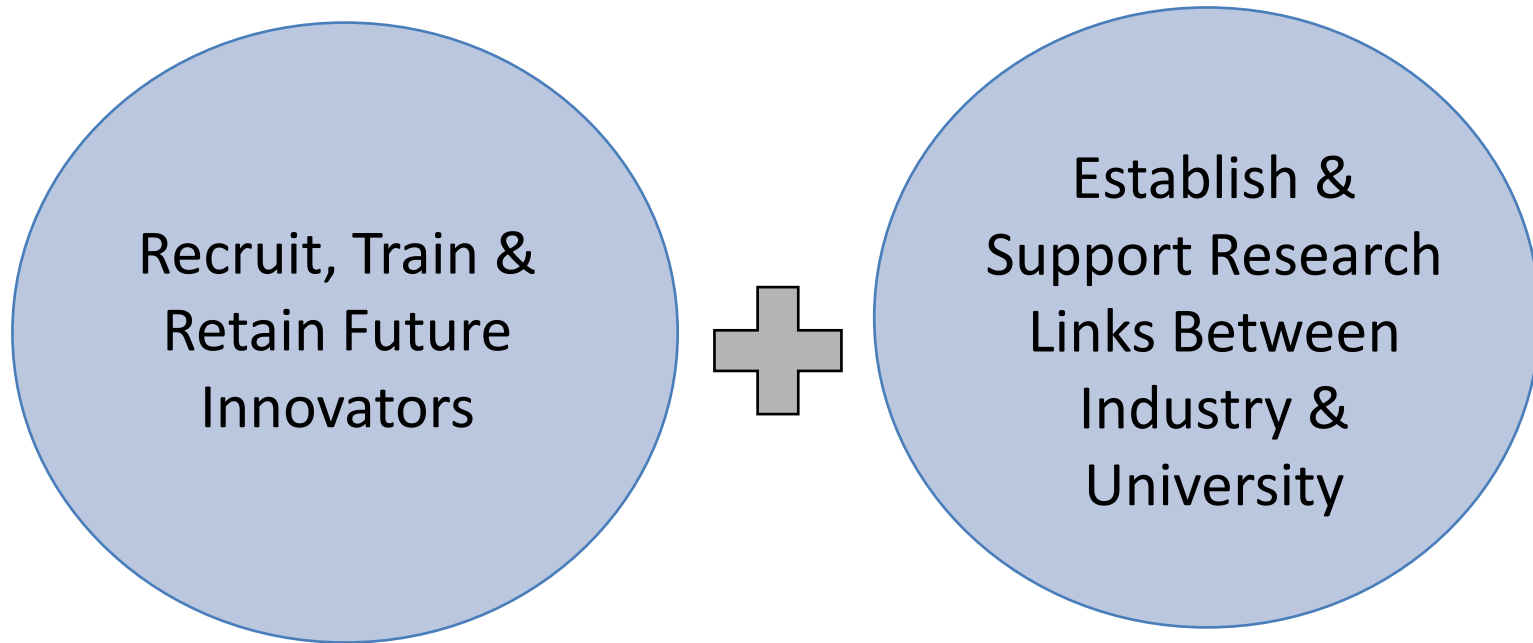# Mitacs Accelerate Program

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June 16th, 2014

Global Evaluation Solutions

- **Innovative, high quality** evaluation consultation services to support evidence-based program evaluation

- **Utilization focused** evaluation approach

- Evaluation Advisory Committee

- CES *Code of Conduct for Program Evaluation*

Presentation Outline

- Overview of the Program

- Evaluation Paradigm and Design

- Evaluation Questions and Methodologies

- Key considerations

- Evaluation Competencies

Mitacs Accelerate Program

Recruit, Train & Retain Future Innovators

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Establish & Support Research Links Between Industry & University

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Program Objectives

- Increase collaboration & knowledge transfer

- Create job opportunities

- Improve employability

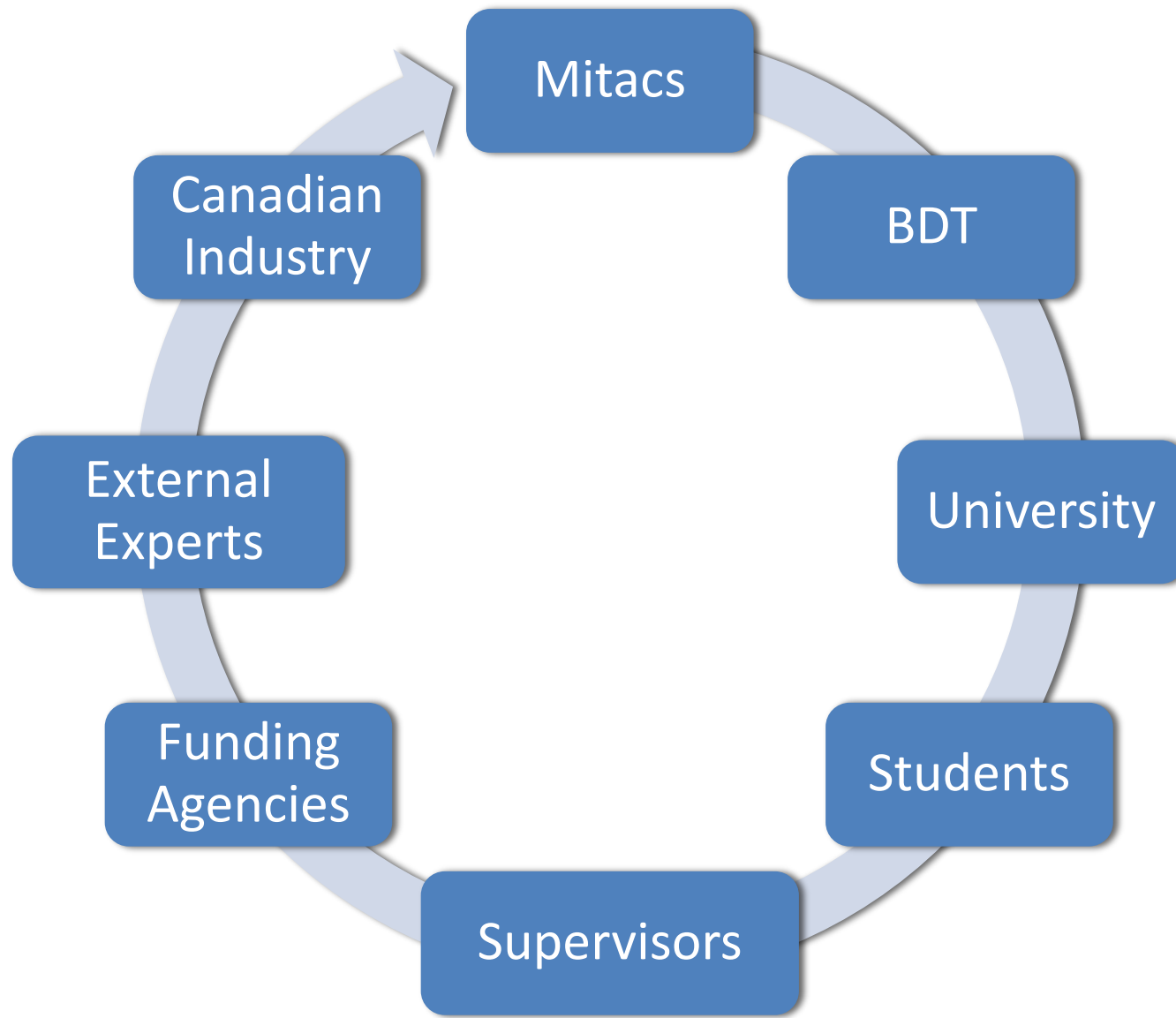- Increase retention of domestic & international students

- Increase industry investment in R&D and innovation

- Contribute to improved productivity of Canadian industry

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Program Stakeholders

Need for Program

- Canada lags behind other developed countries in R&D investment and commercialization

- Canada ranked 13/16 in terms of innovation

- Canadian labour productivity only 75% of the level in U.S.

- Lower commitment of businesses to innovative-based strategies

Program Activities & Inputs

- The BDT helps facilitate opportunities to connect academia & business in solving problems

- Applications from students

- Assessment of applications & decision on support

- Interns develop skills by working on real-world problems

- Funding is provided to students

- Submission of the final report & exit survey

Expected Outcomes

Short Term

Increased applications & interest from students

Increased participation from students, businesses, supervisors

Increased partnerships & collaboration between academic & industry

Increased real world experiences for interns

Long-term

Improved employability of students in respective fields

Creation of future job opportunities

Increased retention of post-grad students in Canada

Increased engagement in collaboration for R & D

Overall contribution to productivity & competiveness of the Canadian industry

Mediating Processes

Graduate Students and Post-doctoral Fellows

↓

Funding, Opportunities for Connections

↓

Collaboration

↓

Innovative R&D activities

Extraneous factors

Employment opportunities

Relevance of research to current industry

Funding

Culture of R&D

Existing collaboration between universities and industry

Implementation Issues

Awareness of program

Readiness of student & industry

4 to 6 month terms

Extensive application process

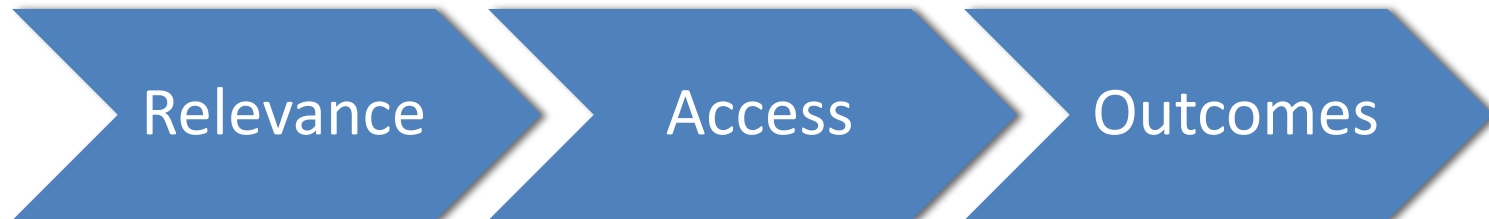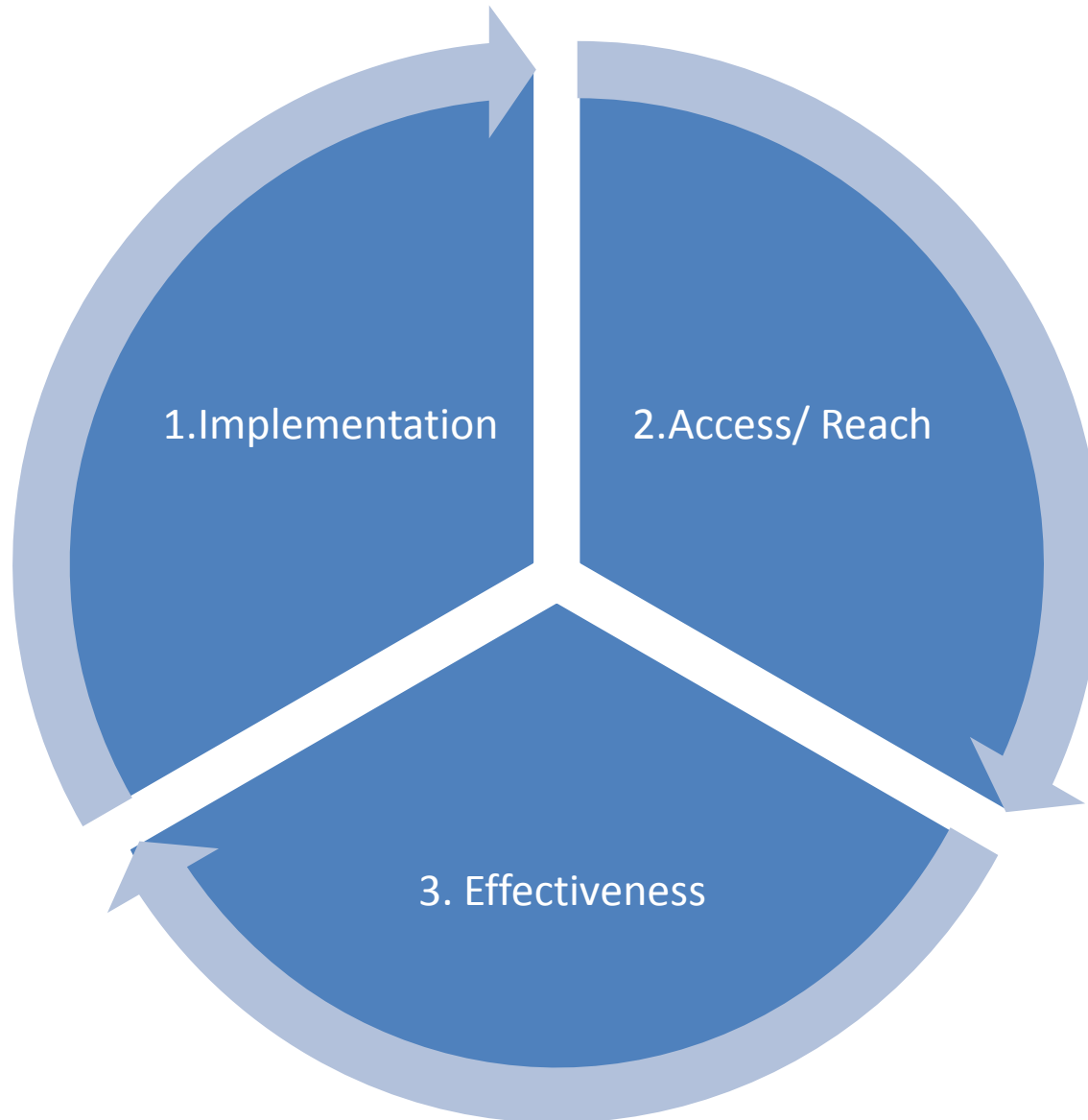Industry vs. academic priorities

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Evaluation Objectives

Conduct a concurrent process & outcome evaluation

Relevance → Access → Outcomes

EVALUATION MATRIX

Matrix

Section 1: Implementation Questions:

- Used to assess if MITACS is relevant to the needs of students and partner programs and to determine if alternative options are available.

  - E.g. "1.3 Are alternative options available? E.g. practicums, co-operative learning"

- Indicators: Student Participant Feedback, Partner Organization Feedback

- Methods: Case studies, Surveys

Section 2: Reach/ Access

- Used to identify the reach of mitacs among both academic institutions and non-academic organizations, and to make inferences about the program's marketing strengths and limitations.
  - E.g. "2.3 How widespread is Mitacs Accelerate Program in industry?"

- Indicators include the # of unique users, unique partner organizations and unique supervisors, as well as the number of returning organizations, users and supervisors.

- Methods: document review

Section 3 : Effectiveness/ Outcome Questions

- This section is used to identify if the program is contributing to the intended outcomes; in this case, employability, student retention, and increased knowledge translation between academia and non-academic groups

  - e.g. "3.3 Have participating partner organizations increased investment in research and development?"

- Indicators include Partner organization Feedback, participating student Feedback, Supervisor feedback

- Methods include: surveys, case studies, interviews.

Challenges to Measuring Outcomes

Postgraduate Employment Data

- No access to national data
- Skewed data

Attribution

- External variables
- Non-linear impact of research
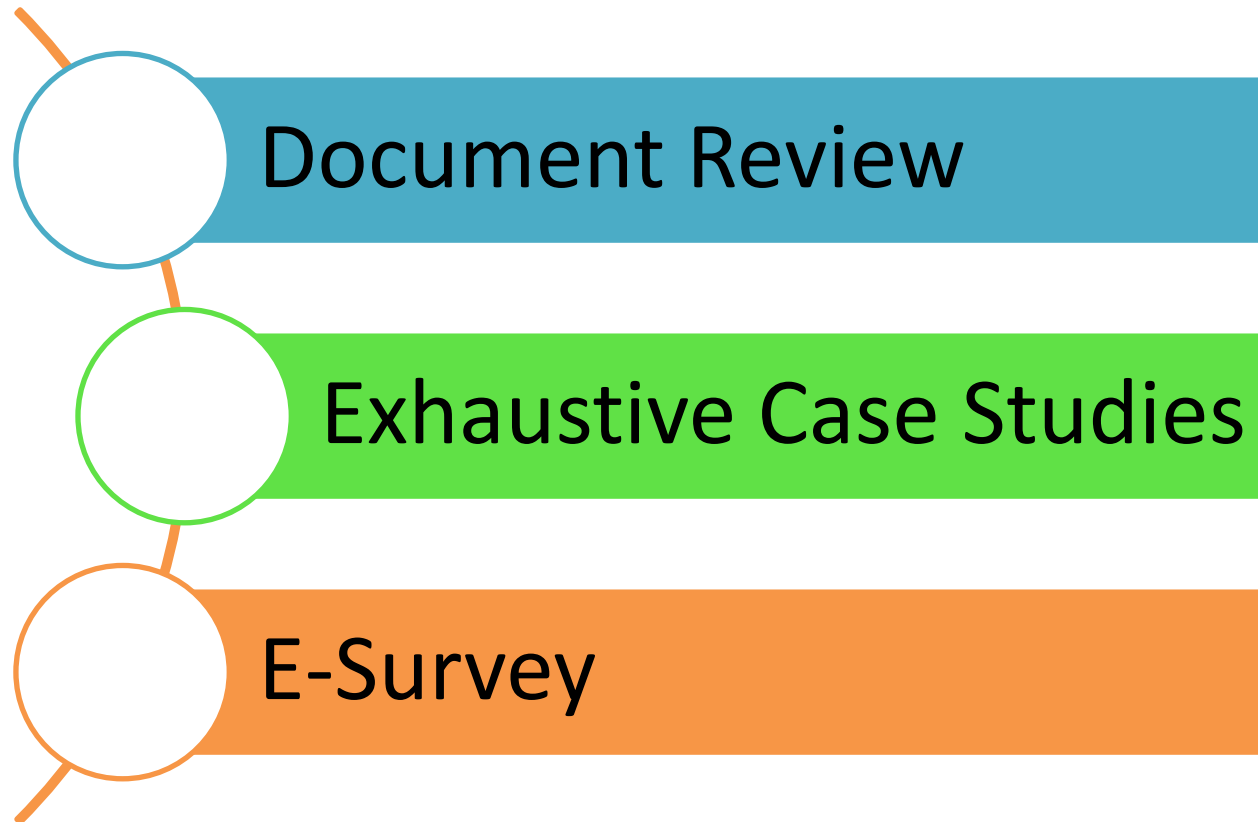
Contribution Analysis

- Provides evidence that the program has made an important contribution
    - Is the program enhancing postgraduate employment?
    - Are outcomes attributable to the program?
- Steps:
    - ✓ Problem to be addressed
    - ✓ Develop Theory of Change and risks
    - ✓ Gather existing evidence on the Theory of Change
    - Assemble the contribution story
    - Seek out additional evidence
    - Revise and strengthen the story

METHODOLOGY & DATA ANALYSIS

Overview of Proposed Methods

Document Review

Exhaustive Case Studies

E-Survey

Method 1: Document Review

- Representative selection of successful applications across different industries

1. Applications
2. Exit Surveys
3. Final Reports

- Small sample of non-funded applications

Strengths	Limitations
• Does not interrupt the program	• Data is limited to what is available

Method 2: Case Studies

- Using a utilization focused evaluation we will target

Student users
- Users' experience & satisfaction of the program
- Long-term relationship with partnership organization

Student non-users
- Knowledge of the program
- Reason for not applying

Supervisors
- Knowledge of program
- Students employment vs those not attending the program
- Personal research growth (innovation)
- Communication with partnership organizations

Method 2: Case Studies

- Methods of data collection (interviews or focus groups) will depend on the context of the school; # of available **students**, # of interested **professors** from each department and their time commitment

Strengths	Limitations
- Returns meaningful characteristics of real-life events - Used to understand a complex program in a complex system	- Time consuming - Representativeness

Data Analysis

Quantitative analysis

E-surveys
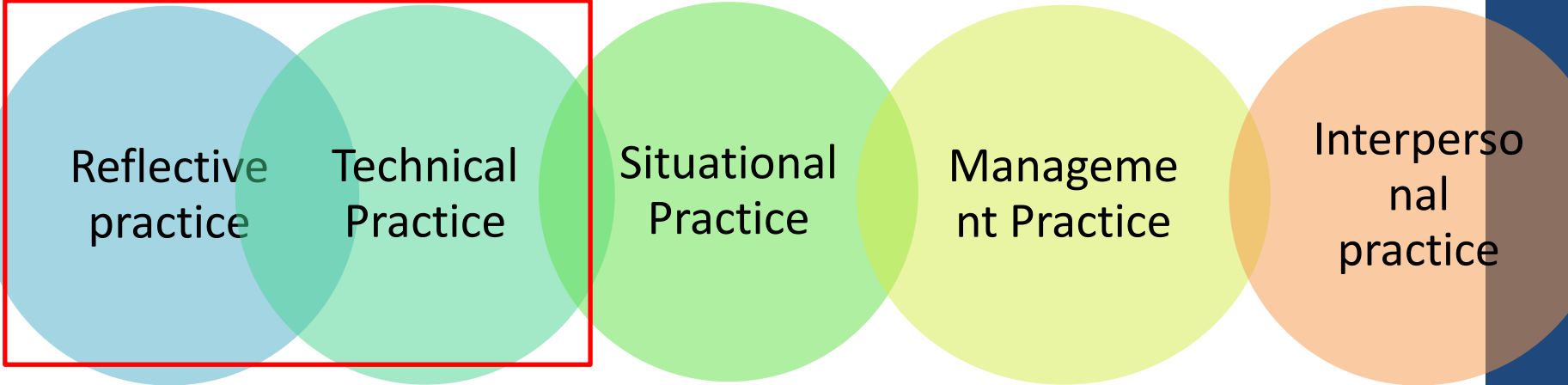
Descriptive, Cross tabulations

Qualitative analysis

Document review, Interviews, Focus Groups

Content analysis

Competencies for Canadian Evaluation Practice

- Global Evaluation Solutions reflect the 5 Professional Competencies set by the Canadian Evaluation Society's which include

Reflective practice | Technical Practice | Situational Practice | Management Practice | Interpersonal practice

Competencies: Reflective Practice

Respects all stakeholders

- GES has proposed making revisions to our program theory through collaboration with an EAC
- The use of case studies will inform of interviews to be conducted with key stakeholders

Pursues professional networks and self development to enhance evaluation practice

- Attend annual meetings at the Canadian Evaluation Society & American Evaluation Association.
- Work closely with the European Evaluation Society
- Serve on advisories for Graduate Diplomas in Program Evaluation

Competencies: Technical Practice

Understands the knowledge base of evaluation (theories, models, types, methods and tools)

- Informed our preliminary theory of change and program theory as well as our evaluation questions and plan of evaluation methods

Determines program evaluability

- Where cause-effect is hard to identify, contribution analysis addresses the **extent to which** observed results are the consequence of the program.

What our evaluation gives you

- Why is Mitacs Accelerate Program **relevant** from the perspective of students, supervisors and industry?

- What are students **gaining** from the program?

- Contribution analysis begin assessing outcomes on employment and innovative development

- Recommendations to inform a **future outcome** evaluation – e.g., revised exit survey questions, revised application questions

Acknowledgements

- Canadian Evaluation Society
  - 2014 CES Student Case Competition Organizers & Supporters
  - CES travel Scholarship Fund
  - Judges

- The University of Waterloo
  - Dr. Anita Myers & Dr. Jennifer Yessis
  - School of Public Health and Health Systems

- The City of Ottawa and the Lord Elgin Hotel for hosting this year's conference and competition.

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THANK YOU

Contact Us Today

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