Enhancing Mentorship for the Electrical Trade in British Columbia: Final Comprehensive Strategy

January 2018



Canada
BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAEC
SKILLPLAN
MainStreet Communications

BC Mentorship Project

Governance Committee (Strategic Phase, September 2017-January 2018)

Electrical Contractors
Mark Bemister, President, Bemister Electric Ltd.
Darcy Bryan, President, Bryant Electric Ltd.
Ron Fettback, Vice-President of Operations, Western Pacific Enterprises Ltd.
Shaun Henneberry, President, Henneberry Electrical Contractors Ltd.
Robert Lashin, President, Houle Electric
Amber Roberts, Director of Human Resources, Houle Electric
Bill Strain, Owner, Villa Electric 1980 Ltd.
Graham Trafford, General Manager, Mott Electric GP
Jarett Yamaoka, General Manager, Keldon Electric & Data Ltd.

Industry Organizations
Deborah Cahill, President, Electrical Contractors Association of BC
Andy Cleven, Training Director, Electrical Joint Training Committee
Dr. Lindsay Langill, Vice President, Independent Contractors and Businesses Association
Larry Richardson, Director of Training, Christian Labour Association of Canada
Adam Van Steinburg, Business Manager, International Brotherhood of Electrical Workers Local 213

Government
Gary Herman, CEO, Industry Training Authority
Matthew Milovanovic, Program Manager, Ministry of Advanced Education and Skills Training
Paulette Sangalang, Director, Training Investment, Industry Training Authority

Project Team

The **Electrical Joint Training Committee** (EJTC) is a partnership of the Electrical Contractors Association of BC and the International Brotherhood of Electrical Workers Local 213. The EJTC has sponsored and managed the BC Mentorship Project, recruited the Governance Committee and consultant support from participating firms, and provided expert input on industry needs.

From its campus in Port Coquitlam, BC, the EJTC develops technical training programs and standards and delivers training for electricians at the pre-apprentice, apprentice and continuing levels. The EJTC provides its Mentorship Matters™ course on a mandatory basis to all apprentices in its jurisdiction and to training centres and employers across North America.

Mentorship Project Contacts:
Andy Cleven, Training Director
1405 Broadway Street
Port Coquitlam BC V3C 6L6
604-571-6540
acleven@ejtc.org
LMI Report photos: EJTC/Chuck Russell

ELECTRICAL JOINT TRAINING COMMITTEE

The **Social Research and Demonstration Corporation** (SRDC) is a non-profit organization created to advance the state of knowledge and the delivery of social, education and labour market programs. The SRDC led the survey design and analysis and drafted the report for the research phase of the Mentorship Project and provided a draft Evaluation Plan during the strategic phase.

Mentorship Project Contact:
David Gyarmati, Research Director
55 Murray Street, Suite 400
Ottawa ON K1N 5M3
613-237-5298 | 1-866-896-7732
dgyarmati@srdc.org

SkillPlan is a not-for-profit organization providing workplace education consulting services to address learning challenges in the construction industry and other sectors. SkillPlan participated with SRDC in the design and analysis of Phase 2 of the Mentorship Project and provided a draft Implementation Plan during the strategic phase.

Mentorship Project Contact:
Kyle Downie, CEO
405-3701 Hastings Street
Burnaby BC V5H 2H6
604-436-1126
info@skillplan.ca

Main Street Communications Ltd. provides business development and stakeholder relations support to the EJTC and other clients in the Canadian electrical sector. Main Street participated in the development of the Strategic Plan during the strategic phase of the Mentorship Project.

Mentorship Project Contact:
Ian McLeod, Principal
4 – 22268 116 Avenue
Maple Ridge BC V2X 1P5
604-477-0893
imcleod@mainstreetcommunications.ca

The Project Participants Wish to Thank:

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

Table of contents

Introduction

This document presents the consolidation of three deliverables developed during the Strategic Phase (Phase 3) of the BC Mentorship Project, an industry-driven initiative designed to create a sustainable province-wide mentorship training program for the electrical trades in B.C.

The key deliverables during Phase 3 were:

1. Strategic Plan

The Strategic Plan sets out the goal and vision for the BC Mentorship Project, and a scope of work for Phase 3.

2. Implementation Plan

The Implementation Plan identifies the tasks and tactics that are required for the Project to meet its objectives. For each task, the Plan outlines timelines, resources and responsibilities.

Reflecting input from the Governance Committee, the Implementation Plan includes the steps required to develop the model for an enhanced mentorship program, to establish a process with employers for implementing the program in the workplace, for training mentors as required, and for creating a learning environment that fosters skills development in the electrical trades. The Plan relies on the Project's research phase report and its identification of business needs and skills and performance gaps.

For implementation of a future mentorship program to succeed, the benefits for employers and employees must be clear and relevant; the delivery process must be relatively simple; the program should be accessible to electrical firms in all B.C. regions; and it must be financially sustainable.

3. Evaluation Plan

The Evaluation Plan includes a logic model and an evaluation framework. The plan will help guide the assessment of the mentorship program's overall effectiveness and its impact on performance gaps in the electrical trades.

Building from the Phase 2 research report, the logic model defines the performance areas that need to be improved (the content drivers for the curricula), activities that will be implemented to address them, the resources required to complete these activities (inputs), the anticipated result of these activities (outputs), and the change in performance that should be observed in the workplace (outcomes).

The evaluation framework moves beyond the logic model by describing how performance outcomes are to be measured in order to assess the effects of training, how gains can be linked to business outcomes. This involves making decisions about which outcomes are most likely to be affected by a mentorship program, which ones are critical to demonstrating the program's effectiveness, and how and when results should be measured.

The evaluation framework also includes a detailed evaluation design which will include three key components:

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

- an implementation research plan to document how project implementation takes place and to allow for the linking of the mentorship process to performance outcomes;
- a data collection plan—including the timing and format of data collection; and
- a strategy for determining impacts and return on investment (ROI) of the proposed pilot project.

The Implementation and Evaluation plans are to be tested through a proposed 36-month pilot, which will constitute Phase 4 of the Mentorship Project. The scope of the proposed pilot is described in this document.

Project Goal, Definition, and Vision

The **goal** of the BC Mentorship Project is to develop and implement a workplace mentorship training strategy that is practical, affordable, accessible to firms across B.C., and sustainable, and which succeeds in addressing the performance gaps that affect business outcomes for the benefit of both workers and industry.

Through the course of 2016 and 2017, participants in the BC Mentorship Project have used this **definition** of mentorship:

- Mentorship is the **process** of effectively transferring skills and knowledge from more experienced to less experienced workers.
- In acquiring the foundations of Mentorship, **experienced workers** learn such skills as identifying the point of a lesson; demonstrating the skill; providing opportunity for practice; giving feedback; and assessing progress.
- In learning to be mentored, **less experienced workers** learn about effective communication, active listening, receiving feedback, asking questions and setting personal goals.

By conventional wisdom, 80 per cent of a tradesperson's working knowledge is gained on the job, compared with 20 per cent through formal training. The development of a mentoring culture in B.C. construction is increasingly important because many highly-skilled workers will soon retire from the trades, because the pace of change does not permit formal instruction for every new technology, and because firms engaged in quality improvement need effective ways to transmit knowledge to meet business priorities related to productivity, health and safety and client relations.

Through the BC Mentorship Project, the electrical sector in B.C. construction can take a leadership position in the application of mentoring strategies, and this capability can be imparted to other trades.

> **The project vision sees the electrical trade in the B.C. construction sector recognized as a national and international leader in safety, productivity and continuous improvement through the effective transfer of skills and knowledge in the workplace.**

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Project Governance

Phase 3 of the BC Mentorship Project was led by a **Governance Committee** broadly representative of the electrical construction sector in B.C. The Committee included unionized electrical contractors, industry representatives from the non-union sector, contractor representatives from B.C. regions and union representatives. The Government of B.C. and the Industry Training Authority were represented in an ex-officio capacity. Funding was provided through the Canada-British Columbia Labour Market Development Agreement.

The Governance Committee was supported by:

- Staff from the Electrical Joint Training Committee (EJTC), providing expertise on the current state of technical training in the electrical industry, and acting as a secretariat along with their consultant Main Street Communications Ltd.;
- The Social Research and Demonstration Corporation, providing research expertise; and
- SkillPlan, providing expertise on skills development and curriculum development.

The Governance Committee met three times in person, on September 8, October 23 and December 11, 2017, with a teleconference on November 21. The Governance Committee considered key issues such as:

- *The shape and scope of the mentorship program*, including formal training and follow-up activities.
- *Evaluation of mentorship activities.* To be successful, a future BC mentorship program must demonstrate a clear return on investment for employers. This will require the preparation of ongoing measures and tools to be applied by each participating employer.
- *Sustainability and continued participation by industry.*
- *The pilot* (Phase 4). The pilot phase is intended to test the mentorship curriculum and its success in improving business outcomes. It will also test the proposed evaluation measures and tools, as well as the proposed communication and outreach tools.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Strategic Background

The electrical trade is one of the largest skilled trades in British Columbia, with nearly 32,000 journeyperson workers. While it spans many sectors including resources (industrial and power line electricians) and transportation, the construction sector (residential, commercial and institutional) depends most heavily on skilled electricians, accounting for over 85 per cent of all jobs in the electrical trade. The BC Mentorship Project was initiated by the EJTC to address skills development needs in the B.C. construction sector, beginning with electrical journey workers and apprentices.

Across Canada, the construction industry is forecast to lose 248,000 skilled tradespeople to retirement over the next decade, leading to skilled labour shortages at unprecedented levels. In B.C., about 40,000 workers are expected to retire in the same period. Despite uncertainties around major natural resources projects, the demand for construction electricians remains strong within a diversified provincial economy. There are significant employment opportunities for younger workers, but also – with technological change and the departure of older workers – an increasing need for rapid skills development. This places pressure on employers, unions, supervisors and journeypersons who oversee the large majority of skills development through apprenticeship programs and mentorship.

How to effectively transfer the skills and knowledge of more experienced to less experienced workers represents one of the biggest challenges facing the construction industry. The research phase of the BC Mentorship Project (2016-2017) confirmed that most employers in the sector recognize this challenge and see mentorship as the key to developing qualified journeypersons. However, employers also report that the quality of current mentorship is drastically uneven. While some experienced workers are well prepared and suited to take on the mentoring role, many are not. A structured mentorship program – one that builds mentorship skills in the areas where performance gaps are most prevalent – will assist workers at the journeyperson and apprentice levels in becoming stronger mentors and mentees.

The BC Mentorship Project entered its strategic phase in September 2017, with the objective of producing a comprehensive mentorship strategy for the B.C. electrical construction sector. The potential benefits of implementing a systematic, province-wide program include:

- An opportunity for increased workplace safety and productivity, and improved business revenues;
- Increased in-house training capacity among participating firms, enhancing the skills of their employees and the ability of firms to respond to changes in the market; and,
- Increased rates of retention and advancement among skilled workers.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Research Findings from the LMI Research Phase (Phase 2)

The LMI Research Phase (Phase 2) of the BC Mentorship Project provided the foundation for Phase 3. During Phase 2, the project team, headed by the Training Director from the Electrical Joint Training Committee, developed a new body of knowledge related to construction sector business needs and performance gaps. Research results were presented in a March 2017 report, *Enhancing Mentorship for the BC Electrical Trade*.

The research objectives included:

- Identifying the **skills deficits and job performance gaps** of electrical apprentices and journeypersons most critical to business from the perspective of contractors, including a quantitative picture of the prevalence of skills gaps across the sector;
- Clarifying which of these gaps are associated with and **responsive to mentorship**, in order to provide a strong basis for the development of the mentorship training model and curricula; and
- Linking these gaps with **business outcomes** to support the design of rigorous evaluation tools related to return on training investment.

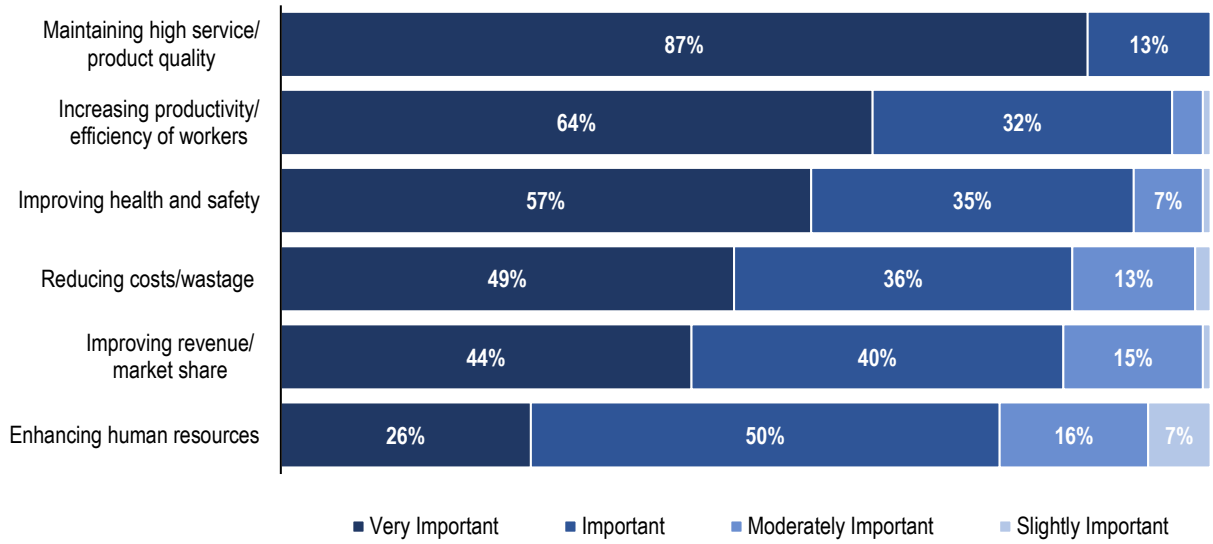
The project team pursued five distinct lines of evidence, including background research, industry consultations, in-depth interviews with exemplar employers, an online survey that generated 148 detailed responses, and secondary data analysis to probe for contradictions and gaps among the other lines.

Survey respondents were asked to identify the key developments in the economy that are affecting their businesses; the most important factors in recruitment and retention; business priorities; key business performance indicators; common performance gaps and their underlying causes; and the areas of underperformance where mentorship is most likely to be effective.

The Phase 2 survey results indicated that the most desired business outcomes are *maintaining high service and product quality*, *increasing the productivity and efficiency of workers*, and *improving health and safety*. The ranking of six suggested business priorities is shown in the following chart.

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECABC
SKILLPLAN
MainStreet Communications

Figure 1 Desired business outcomes ranked in order of priority



Contractors identified critical performance gaps that affect business outcomes in the areas of safe work practices, productivity and efficiency, and client relations, as well as the underlying causes of these gaps.

- For ***safe work practices*** the most common gap was not wearing personal protecting equipment (mentioned by 42 per cent of respondents). The second and third most problematic gaps were not maintaining a safe work environment (28 per cent identified as an existing gap) and not following WHIMIS and Workers' Compensation regulations (20 per cent identified as an existing gap). The two primary underlying causes of gaps affecting safe working practices are related to employees' attitudes and behaviour in the workplace.
- Among the gaps affecting ***productivity and efficiency*** in the workplace, the two most problematic are materials handling and task inefficiency, identified as problems by 55 per cent and 54 per cent of respondents, respectively.
- For ***client relations***, the failure to maintain ongoing communications between project managers, foremen and general contractors or clients was cited by most respondents (62 per cent), followed by the mishandling of clients' complaints when they arise (49 per cent), and issues around the manager's communications with clients during the project pre-launch (42 per cent). More than half of all respondents (53 per cent) agreed that the primary cause of client relation problems is the workload borne by the project manager.

Throughout the survey, there was general agreement on the importance of quality mentorship. Mentorship is not a one-stop solution to addressing performance gaps – in fact, there are numerous policies and programs in place to improve employee performance – but 96 per cent of contractor respondents said quality mentorship is important for the development of apprentices, and 73 per

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAWC
SKILLPLAN
MainStreet Communications

cent said it is very important. Most respondents agreed that mentorship can address performance gaps related to health and safety, productivity, and client relations.

Contractors also provided a ranking of areas where performance could be improved through mentorship and training activities. They indicated that the two most useful activities in a future mentorship program would be:

- Activities that reinforce consistent safe working practices among apprentices, and
- Practice and support in conducting high quality job hazard or field-level risk assessments.

The following chart points out in more detail which mentorship activities (defined in general terms) would be most useful in addressing performance gaps.

Figure 2 Mentorship training activities designed to address performance gaps, ranked by priority

1. Health and Safety	2. Productivity and Efficiency	3. Client Services
A Activities to reinforce consistent safe working practices among new apprentices	C Supports to facilitate proactive communication between project managers and foreman, pre-project launch and during project activity	D Support to project managers and foremen in resolving conflicts, complaints, and service recovery
B Practice and support in conducting high quality job hazard or field-level risk assessments for all responsible staff and crew	E Protocols to reinforce planning skills among foreman with respect to on-site materials handling	F Reinforcement for the importance of strong client communication to generate staff buy-in
I Approaches for creating successful toolbox/tail-board meetings	G Mentorship supports and reinforcement for foreman and journeyworkers to plan more efficient work flows (e.g. production line) for apprentices	H Support to project managers and foremen with communications systems and technology
L Protocols for daily monitoring (e.g. walk arounds, ad-hoc hazard assessments)		

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAWC
SKILLPLAN
MainStreet Communications

1. Health and Safety	2. Productivity and Efficiency	3. Client Services
O Tactics for maximizing engagement to fight complacency (e.g. use of personal anecdotes, visuals, assigning speakers, sharing near-miss data)	**J** Assistance with technological solutions (e.g. communication, information sharing, project planning apps)	**N** Support to project managers in building rapport with clients
P Methods for encouraging variety/freshness (e.g. rotating speakers at meetings, shake-up the format, change the content)	**K** Protocols to reinforce planning skills among foreman with respect labour/resource coordination and management	
Q Guidelines for introducing reward-based practices and incentives	**M** Supports for handling change orders and dynamic work environments	

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

Overview of the Proposed Pilot Phase (Phase 4)

The Pilot Phase of the BC Mentorship Project (Phase 4) is intended to build the foundation for a sustainable province-wide mentorship program.

To achieve meaningful results, the pilot phase will require the participation of 30 or more electrical contracting firms, and at least 900 employees. The pilot will span 36 months, with a year for participant engagement, program development and testing, 21 months for training and evaluation, and three months of analysis and reporting.

The pilot will serve as a test for the project design, the project team and the contractors and employees who volunteer to participate. One measure of success of the pilot will be the amount of interest it attracts from individuals and firms in B.C. industries who are not participating. Throughout the pilot phase, the project Governance Committee will observe the results of mentorship training and follow-up, receive input from participants, and engage with government and industry on the options for long-term, industry-wide activity.

In the end, the BC Mentorship pilot will generate valuable data about the transmission of mentorship principles, the link between mentorship activity and improved job performance, and the return on investment in mentorship training. It will also provide insight into the culture and supports that firms need to have in place to enable effective mentoring.

Proposed Implementation Plan

The Implementation Plan considers the implementation of a pilot mentorship training program in three chronological stages: Engagement and Design Stage (12 months); Implementation Stage (21 months); and Analysis, Reporting, and Sustainability Stage (3 months). The activities proposed for each stage will lead to a set of outputs as described at the end of each section.

During the Engagement and Design Stage of the pilot (months 1-12), firms will be recruited, and each firm will undergo a training needs analysis. This will contribute to the design of the program, which will then be tested with selected firms. The first year will also see the launch of a train-the-trainer process, where the project team will work with firms to develop their ability to deliver mentorship training and mentorship follow-up in-house.

During the Implementation and Data Collection Stage (months 13-33), mentorship training will fall into two broad categories. Core Mentorship Training will be provided in the classroom, and will demand up to eight hours of time from each employee participant. Enhancement Supports, intended to reinforce the classroom training, will be provided in the worksite and online.

Participating contractors will take responsibility for ensuring that employees selected for the pilot – both apprentices and journeypersons – are scheduled for Core Training, undergo Core Training, and follow through with Enhancement activities in the workplace. This will impose an administrative and management burden on employers, in return for a hoped-for return on investment in the form of improved job performance.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Stage I: Engagement and Design (Months 1 to 12)

Industry Engagement and Mentorship Program Development

Program design and delivery for the proposed BC Mentorship pilot project will involve determination of learning outcomes that best address the needs, interests, and circumstances of workers and contractors in the electrical industry. As such, this project requires a clear benchmarking of workers and desired learning outcomes, and comparison of these to identify skill performance gaps relative to desired business outcomes. The results will ultimately be used to clarify priorities for learning, how to address those priorities, and how electrical apprentices and journeyworkers need to progress in mentorship training.

Successful implementation of this mentorship model will require development of a comprehensive set of learning and communication materials, engagement and supportive services, and resources to ensure that industry remains engaged and supportive over the long term.

Stage I of this project involves development, utilization, testing, and adjustment of a comprehensive set of learning materials, supportive services and resources, and engagement and commitment by key industry contractors, labour stakeholders, and training providers to participate in this project.

Marketing and Industry Engagement

Implementing a mentorship program, proposed to take place both on and off the jobsite, will require a coordinated effort that begins with effective promotion of the value of mentorship to prospective participants. Perhaps the most critical component of this process will be the communication that flows from employers and company managers to journeypersons and apprentices. To ensure wide support and involvement on the part of all key partners —electrical contractors (both union and non-union), labour stakeholders, and training providers— a structured program of communications will be required before and during the pilot phase.

In this context, the following are the communications objectives:

- Raise awareness among electrical contractors of the direct link between addressing performance gaps and business outcomes;
- Build stakeholder trust and encourage participation in the pilot project;
- Establish a communication process for engaging and implementing a mentorship program within the workplace;
- Test a variety of program communications, messaging, tools and tactics;
- Demonstrate and communicate the program's return on investment; and,
- Prepare the way for a fully adopted program, available one day for all electrical contractors.

A detailed communication strategy will be developed to pursue the communication objectives, and could include provision of tools and tactics such as:

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

- A BC Mentorship website that includes:
    - An introduction to mentorship principles (as summarized in the Mentorship Matters™ program, developed in BC and already applied extensively).
    - Calls to action aimed at each of the stakeholder groups.
    - Information on how to arrange training, learn about new products, tools, and mentoring techniques, and monitor progress of the BC Mentorship Project through news stories or testimonials from participants.
- A broader digital media strategy with an online forum, either within the website or on a separate digital platform;
- Printed communications materials;
- Materials to be displayed at the worksite, including promotional posters and decals;
- Brief videos to be posted on a YouTube channel and the website to showcase successes in implementation and highlight key principles; and,
- Presence at industry events.

The Electrical Joint Training Committee (EJTC) will work in partnership with Main Street Communications Ltd. and SkillPlan to develop and implement a marketing and communication program, with a focus first on engagement of key partners and recruitment of contractors, journeypersons and apprentices for the pilot project.

The proposed target sample for the pilot project will enlist approximately 30 contractors and 900 electrical journeypersons and apprentices from across B.C. Within the project's experimental framework, one third would receive no specific mentorship training, another third would participate in core mentorship training, and the final third would receive core mentorship training in addition to enhancement supports. EJTC and its consultants will collaborate only in the recruitment of the 30 contractors. Upon contractor agreement to participate, EJTC and SkillPlan will conduct a short customization analysis, in addition to an online survey with each contractor to establish a process for employers to implement the mentorship training program options. This will be verified before commencement of training.

As part of the pilot project, contractors will be provided with contact information for the project team, one of whom will be designated as the primary contractor contact.

As an incentive for contractors to join the project, all employees who are selected for participation in the pilot will be offered the full scope of Core Training and Enhancement Supports within the 36-month window, regardless of where they sit in the experimental scheme.

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

Mentorship Program Development

The developmental principles of this mentorship program have been designed to ensure that training is practical, affordable, consistent, uniformly branded and accessible across B.C. To build capacity and sustainability, a comprehensive mentorship train-the-trainer program will be utilized to provide electrical firms with the tools and understanding required to effectively deliver this program to their respective apprentices and journeypersons, whether on or off the jobsite.

While mentors are expected to possess a number of attributes, among the most essential are strong communication skills, a willingness to share knowledge and an ability to analyze complex processes. Ideally mentors are well-rounded individuals with the ability to both see the big picture and to connect the dots, in addition to, from an interpersonal perspective, work well with others, demonstrate tasks clearly and effectively, and provide proper supports for mentees. Successful mentees, ideally, are active listeners with strong communication skills and the ability to ask effective questions. Successful mentees work well with others, are team players, think critically and solve problems efficiently, and take advantage of learning opportunities.

The project Governance Committee agreed that E2 Inc. and SkillPlan's Mentorship Matters program is a strong fit to set the learning outcomes framework for mentors and mentees. The key principles are displayed in the table below. All mentorship program offerings, including contextualized training, will revolve around the following learning outcomes to ensure participants have required foundational mentorship skills.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Mentorship Program Outcomes	Communication Program Outcomes
▪ Identifying the Points of a Lesson ▪ Linking the Lesson ▪ Demonstrating the Skill ▪ Providing Opportunities for Practice ▪ Providing Feedback ▪ Assessing Program	▪ Effective Communication ▪ Active Listening ▪ Asking Questions ▪ Receiving Feedback ▪ Learning Styles ▪ Setting Goals

Contextualizing is a key driver of program design. Mentorship training that uses examples and activities that reflect the industry context where training takes place results in more engaged participants and a greater return on investment because training is aligned with business goals.

Design of the mentorship program will consider the key business outcomes identified in the occupational needs analysis to ensure, from a business perspective, that the program 'moves the markers' that contractors require, such as:

Business Outcomes
▪ Maintaining high service and product quality ▪ Improving revenue and market shares ▪ Increasing productivity and efficiency ▪ Reducing costs and wastage ▪ Improving health and safety standards ▪ Enhancing human resources

Mentorship program curricula will also be contextualized for each contractor around key gaps identified in the occupational needs analysis in order to address common on-the-job performance issues, including (but not limited to):

Performance Gaps
▪ Safe working practices ▪ Maintaining a safe work environment (e.g. identifying, reporting and removing hazards such as debris, trip and fall hazards) ▪ Using personal protective equipment ▪ Following regulations ▪ Enhancing productivity and efficiency ▪ Handling materials (e.g. organizing tools and equipment to support work flow on site)

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAWC
SKILLPLAN
MainStreet Communications

EJTC, SkillPlan and Main Street Communications will utilize and/or develop two mentorship programs for this pilot: a core program and on-the-job enhancement supports.

Core Mentorship Program

The basis of the mentorship training will revolve around a core formal training program set out in the industry-supported Mentorship Matters™ program. Mentorship Matters™ teaches respective participants the principles of what it means to be a good mentor and mentee. The core program will be enhanced through development of on-the-job tools, as well as a flexible delivery approach that will offer the choice of short multiple 'lunch and learn' sessions in the workplace, and jobsite and/or online training sessions.

As supported by the project Governance Committee, this combination of learning outcomes and flexible delivery approach will enable contractors, workers, labour stakeholders, and training providers to determine the core mentorship delivery option that will best meet their needs.

The Core Mentorship Program will consist of:

- Mentorship training sessions for both apprentices and journeyworkers.
- Mentorship Matters™ products, including:
    - Six key principles of a strong mentor and mentee;
    - Trainer guide and material with accompanying participant workbooks;
    - Instructor's guide with accompanying PowerPoint, new videos contextualized to the electrical trade, student workbook, and marketing material;
    - Student activity booklets;
    - Pre- and post-training surveys (both paper and online) and;
    - Marketing material (e.g. posters, hard hat and vehicle decals, water bottles).

On-the-Job Mentorship Enhancement Supports ('Enhanced' Program)

The Core Mentorship Program will provide the tools necessary for workers to apply mentorship principles as contextualized to the performance gaps on the job site, while the addition of enhancement supports will ensure that the Core Mentorship Program is not seen as a 'one off' training exercise. These enhancement supports may include:

- An online survey tool to gauge contractor's readiness to engage in mentorship training.
- Toolbox and safety meetings guidelines for reinforcing good mentoring:
    - A short two-minute reminder for mentors and mentees on mentoring relative to key principles and performance gaps.
- A jobsite mentorship orientation program (30 to 60 minutes) to reinforce the principles and importance of on-the-job mentoring.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

- An online competency mobile device with the following capabilities:
    - Record participation in program activities;
    - Send reminders and notifications to workers, and provide mentoring ideas related to specific skills along with other online resources; and
    - Take the 'mentorship pulse' of a participating company without being intrusive.
- Promotional tools (e.g. posters, hardhat decals, etc.):
    - Onsite posters with six-step reminders related to a task (e.g. conduit bending).
- A project website highlighting Mentorship Matters™ learning principles and providing a one-stop shop for contractors and trainers where they can sign up for new courses, find additional information and products, and learn how others in the industry are implementing the mentorship program.
- A social media strategy and online forum.
- Short social media videos to reinforce mentoring principles and showcase success stories.
- Additional practice activities and scenarios.
- Online participant training and a follow-up learning application survey.
- Completion certification endorsed by the electrical industry to allow contractors to honour participants, recognize progress, inspire others to participate, and build a mentoring company culture.

Beta Pilot Test with Required Adjustments

A pilot test of the developed Core Mentorship Program and On-the-Job Mentorship Enhancement Supports will be scheduled with a specific construction trades labour stakeholder, e.g. the EJTC and an affiliated contractor. The program will then be reviewed and adjusted as needed, based on feedback.

Key Outputs and Expected Results

Development of Marketing Activity Plan and Materials

- Development of communication materials related to engagement and recruitment of contractors.
- Contact with participating contractors and potential participants to assess marketing needs and preferences.
- Mentorship website.
- Social media strategy and online forum.
- Development of worksite promotional materials.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

- Videos for sharing through digital media.

Engagement and Recruitment

- With the support of the Governance Committee and industry associations, enrollment and project consent of up to 30 contractors representing 900 apprentices and journeyworkers.

Mentorship Training Product Development

- Mentorship Matters™ products, including:
    - Six key principles of a strong mentor and mentee;
    - Trainer guide and material with accompanying participant workbooks;
    - Instructor's guide with accompanying PowerPoint, new videos contextualized to the electrical trade, student workbook and marketing material;
    - Student activity booklets;
    - Pre- and post-training surveys both paper and online; and
    - Marketing material (e.g. posters, hard hat and vehicle decals, water bottles).
- New Products, including:
    - Marketing engagement plan and material to ensure industry commitment;
    - Online survey tool to gauge contractor's readiness to engage in mentorship training;
    - Toolbox and safety meetings guidelines for reinforcing good mentoring;
    - Jobsite mentorship orientation program;
    - Online/webinar Mentorship Matters™ program;
    - Online competency mobile device;
    - Promotional tools (e.g. posters, hardhat decals, etc.);
    - Website based on the Mentorship Matters™ learning principles and branding;
    - Short videos to reinforce the program by showcasing successes in implementation, highlighting key principles, etc.;
    - Additional practice activities and scenarios;
    - E-learning online mentorship courses;
    - An employer quality assurance program; and
    - Completion certification plan.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

Stage II: Implementation and Data Collection (Months 13 to 33)

Implementing the Mentorship Models

In this stage of the pilot project, EJTC and its partners Main Street Communication and SkillPlan will work in parallel with the evaluation activities conducted by EJTC's partner SRDC to implement the core and enhanced versions of the mentorship program. (The enhanced version includes core training plus enhancement supports.)

Using the three-group delivery approach, (i.e., Group One having no intervention, Group Two receiving Core Mentorship training only, and Group Three receiving Core Mentorship training with On-the-Job Enhancement Supports) delivery services and tools will be tested in an effort to identify the most effective form of provincial mentorship program delivery for the BC electrical industry as a whole — electrical contractors, journeyworkers, and apprentices. The following key activities will occur:

Core Mentorship Program Delivery Method

Core Mentorship training will take place, generally, away from the worksite, while Enhancement Supports will be implemented mostly on the jobsite. During strategic development, there has been a consensus within the Governance Committee that it will take time for BC journeypersons to become engaged in the mentorship process — perhaps as long as it takes today's apprentices to earn their certification and move into the system as journeypersons. Therefore, the Core Mentorship Program will be integrated in the following ways for the purposes of the pilot project:

Mentorship Core Delivery Options – Supporting Apprentices

A feasible option will be to implement the Core Mentorship Program when apprentices are in their apprenticeship block training in the classroom. This will support the long-term strategy of establishing a paradigm shift within the industry, where everyone leaving apprenticeship will be expected to have the skills to be strong learners and mentors on the job. However, it will be necessary to consider a flexible delivery approach, recognizing that apprentice training schedules are already packed.

To ensure that apprenticeship trades trainers have the skills required to deliver this training, a train-the-trainer mentorship workshop will be provided by seasoned mentorship trainers. This will provide trades trainers with the competency to effectively delivery this Core Mentorship Program for their apprentices and journeypersons.

Assuming successful completion of the train-the-trainer workshops, trades trainers will be prepared to commence delivery of the mentorship program. To ensure consistency in delivery and provide the necessary support for effective delivery of mentorship training, seasoned mentorship trainers will team-teach 15% to 25% of the workshops with the trades trainers during the pilot project, in addition to providing support behind the scenes.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

Mentorship Core Delivery Options – Supporting Journeyworkers

The project Governance Committee agreed that engaging journeyworkers to participate in mentorship program activities will be a challenge at this time, and will require strong support from contractors and labour stakeholders. However, in order to enable participation by journeypersons where they are willing, a variety of delivery options will need to be developed:

- Mixed Delivery – Online and Webinar – delivered by seasoned mentorship trainers.
- Formal half-day workshop at facilities operated or rented by a labour stakeholder or contractor.
- 'Lunch and learn' mentorship training sessions at jobsites, delivered by a skilled trades worker.

A specialized train-the-trainer mentorship workshop and quality assurance program will be implemented to support mentorship trainers who work with journeypersons, focusing on the training needs and special circumstances of this target audience. These new trainers will receive the background, tools, and procedures necessary to have a strong understanding of how the mentorship program needs to be delivered to their journeypersons.

On-the-Job Mentorship Enhancement Supports

As mentioned, the Core Mentorship Program will provide the necessary tools for workers to integrate and apply what they have learned in their mentorship training on the jobsite. On-the-Job Mentorship Enhancement Supports will reinforce this learning and ensure that workers follow through in applying mentorship principles. Supports may include:

Products and Services

A simple online survey tool will ask contractors key questions to gauge their readiness to engage in a mentorship program (via performing a baseline audit to show them what they don't know and what they need to know). If required, the contactor can contact the project support centre for referral to an expert. This would be a selling point for the project and would help determine the type of on-the-job tools and services that will be the most useful for individual contractors, such as:

- Onsite engagement and marketing mentorship strategy and material;
- Specialized mentorship training for journeyworkers;
- Toolbox and safety meetings options;
- Online mentorship enhancement programs;
- Jobsite mentorship orientation programs; and
- Online competency mobile app.
- Engagement tips and promotional tools (posters, hardhat decals, etc.)

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

Quality Assurance Mechanisms

When required, the project team will work with mentorship trainers and contractors to provide supportive services, ensuring that tools and services are implemented efficiently and effectively so that knowledge transfer from skilled workers to less-skilled workers takes place within the mentorship methodology and framework. This quality assurance program will enable contractors to support the sustained implementation of the mentorship program within their company.

Communication Strategy

Throughout the pilot project, the EJTC and its consultant partners will communicate broadly with industry to ensure wide support and the involvement of electrical contractors (both union and non-union), labour stakeholders, and training providers. The communication strategy will be applied with support and input from the Governance Committee and includes the following objectives:

- Raise awareness among electrical contractors of the direct link between addressing performance gaps and business outcomes;
- Build stakeholder trust and encourage participation in the pilot project;
- Test a variety of program communications, messaging, tools and tactics;
- Prove and communicate the program's return on investment; and
- Prepare the way for a fully adopted program, available one day for all electrical contractors.

Key Outputs and Expected Results

Implementing the Mentorship Models

- Successful completion of training to prepare 20 mentorship trainers.
- Implementation of mentorship programs, both Core Mentorship and On-the-Job Enhancement Supports in up to 20 workplaces, representing approximately 600 workers.
- Development of a mentorship training framework, program, and tools that can be implemented both within the workplace and in technical training for the construction and other industries.

Stage III: Analysis, Reporting and Sustainability (Months 34 to 36)

The final stage of the project will consist of synthesizing and analyzing the training and research results through collaboration among EJTC, SkillPlan, SRDC, and Main Street Communications. This stage will consider results of the implementation study, eliciting best practices in the delivery of a workplace-based mentorship model. The objective of this analysis will be to understand the extent to which the model has impacted participating workers and businesses and generated positive training results for stakeholders, and to fully integrate a clearly defined mentorship model into the electrical construction industry in BC in a sustainable way.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECABC SKILLPLAN MainStreet Communications

During this phase, SkillPlan will refine and finalize the mentorship program, and will seek to ensure the model is indeed responsive to the needs of the industry as discovered through the pilot's evaluation.

The results of this pilot project will form the basis of the BC Mentorship Project Sustainability Plan to include:

Proven Mentorship Model

EJTC and project partners SkillPlan, SRDC, and Main Street Communications will document the results of the pilot project in terms of effectiveness and best practices. It is anticipated that this information will be used to engage additional contractors to implement a proven mentorship model across the electrical construction sub-sector in the province of British Columbia, and eventually across the B.C. construction industry through promotion with other non-electrical trade labour stakeholders, construction associations/councils and contractor associations. Governance and funding for these potential long-term programs have yet to be determined.

Train the Trainer

The train-the-trainer component of this project will ensure ongoing use by the electrical trades, including contractors and labour stakeholders. Experienced trainers will be able to provide further training for a broader range of participants across the electrical trades. As a further outcome of the pilot project, the train-the-trainer materials developed and tested through this project will be used to further engage other trades.

Tools and Resources

All the tools and resources developed, tested, and refined through this project will be available through EJTC. This will support the adoption of the mentoring model.

Communication Tools and Procedures

The pilot project, to be carried out over 36 months, will allow for the implementation and evaluation of various communication tools and procedures. The most effective can be adopted into a general communication strategy for an industry-wide BC Mentorship Program, and potentially for other industry activities.

Key Outputs and Expected Results

Mentorship Program

- Proven Mentorship Model
- Train-the-Trainer
- Tools and Resources

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAWC
SKILLPLAN
MainStreet Communications

Proposed Evaluation Plan

The BC Mentorship Project's Evaluation Plan is organized around the four key components described in the project proposal and work plan, namely, **the logic model, the evaluation framework, and the methodology and data collection methods**.

Logic Model

The logic model describes the **key processes and outcomes** that need to be **explicitly measured** in the evaluation framework to follow. As noted in the AEST *Strategy & Evaluation Guidelines*:

> *A logic model is a planning tool that clearly describes your project needs (the inputs), what your project does (the activities), what your project produces (the outputs), and what your project intends to achieve (the outcomes).*

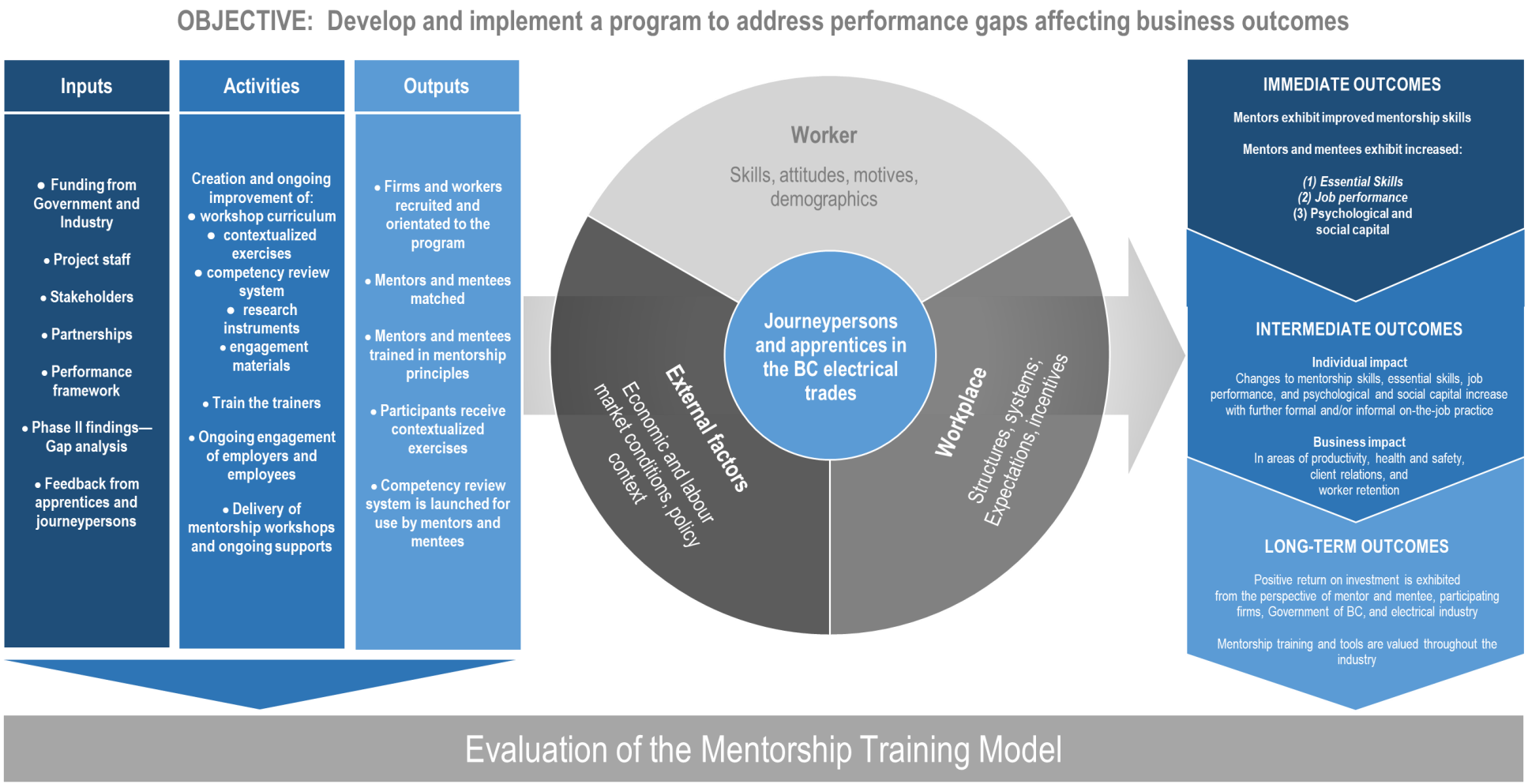
Specifically, each of the key elements of a logic model can be defined as follows:

INPUTS	• Financial and non-financial resources used to support project activities
ACTIVITIES	• Operations or work processes intended to produce specific outputs
OUTPUTS	• Tangible products or services produced by activities
IMMEDIATE OUTCOMES	• Initiate a change in awareness or knowledge
INTERMEDIATE OUTCOMES	• Initiate a change in behaviour, following the change in awareness or knowledge
LONG-TERM OUTCOMES	• Initiate a change in state, which results from the change in behaviour

Based on these guidelines, discussions with the project partners, and the earlier LMI study (Phase 2), SRDC developed a logic model, presented as an annotated flowchart on the following page.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Figure 3 Enhancing Mentorship for the Electrical Trade in BC: Logic Model



Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECABC
SKILLPLAN
MainStreet Communications

Logic model description

At the centre of the logic model are the journeypersons and apprentices in the BC electrical trades; the target group for the pilot, which are represented by the blue circle. The grey outer circle which surrounds them is divided into three parts representing the broader contexts that may affect program implementation and outcomes: the background of the journeypersons and apprentices, the employers and workplaces, and the economic and policy environment.

On the left-hand side of the diagram are all of the elements that go into successfully implementing the project—the inputs, activities, and outputs. On the right side are the hypothesized outcomes of the project divided into immediate, intermediate, and long-term outcomes. For the purposes of this pilot it may be difficult to distinguish the order and timing of an awareness or knowledge change versus a change in behavior. Therefore, in this logic model the primary distinction is that immediate outcomes are those that appear at the end of the formal mentor-mentee relationship (approximately 2-3 months after the baseline) while the intermediate outcomes are those that appear during the second follow-up (approximately 6 months after the baseline survey). The grey bottom bar represents the evaluation which is designed to cover all elements of the pilot.

Evaluation Framework

The evaluation framework unpacks each element of the logic model with a definition, key indicators, and possible specific measures (e.g. types of scales, questions). In the design stage of Phase 4, measures and survey instruments will be developed in conjunction with the mentorship model.

Inputs

For the pilot to have all the necessary inputs there will need to be partnerships and close collaboration between industry, government, training developers, and researchers. More specifically, the intervention will require funding from government and industry, cash and in-kind contributions from industry stakeholders, expertise from project staff, and additional assets from partners to implement and evaluate the pilot.

Finally, the results of the Phase 2 LMI study are a key input. This includes the performance framework development, the organizational needs analyses (ONAs) with exemplar firms, and the survey of contractors that identified performance gaps and mentorship preferences.

Activities

The key project activities include matching mentors to mentees, training the mentors and mentees, and supplying the pairs with enhanced materials beyond those covered in the workshops.

That said, there are several background activities necessary to develop the new materials for this project. These include creating and refining the workshop curriculum as well as developing enhanced contextualized exercises, research instruments, a competency review system (with supports through a mobile application), and engagement and quality assurance materials. In addition, project staff will be recruiting firms and workers, and training the workshop facilitators.

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Outputs

The purpose of the above activities is to produce functional mentorship pairs with the resources to continue developing the mentor-mentee relationship in a way that is relevant and specific to their work in the firm. Possible measures of this output include the number of firms and workers that are recruited and orientated to the project, the number of participants who complete the workshop, analytics from the competency review system generated as mentorship pairs use the tools, and self-reports of going through contextualized exercises.

The project will also generate a number of research outputs namely implementation research which provides lessons learned and best practices to inform future delivery of the mentorship model and scaling, as well as the impacts and ROI study which provides rigorous evidence on the effectiveness of the model.

Target group

In defining a target group there are two considerations. First is the need for formal eligibility criteria, to include only firms and workers who can potentially benefit from the project and who are likely to utilize it during the scaling phase after the pilot. Second is the list of characteristics to be considered to ensure a "balanced" sample that represents a wide cross-section of contractors and individual participants. In terms of size of companies, the formal eligibility may simply be that that the company has at least one journeyperson and one apprentice; however, in terms of representativeness it will be important that companies of a variety of sizes are included.

In terms of formal eligibility for the pilot, **the recommended criteria are as follows:**

- **Eligible participants would include registered electrical apprentices and journey persons working for contractors within British Columbia.** While contractors may also have activities outside of the province, they MUST have current operations and work sites within the province.
- **Eligible contractors must have at least one journeyperson and one apprentice.** Independent electrical contractors who do not employ both would be ineligible as they have no CURRENT need for enhanced mentorship.
- **Eligible contractors must have a degree of anticipated crew stability, where mentorship activities can take place over approximately a one to two-month period.** Though not a strict criterion, crew stability over a three to six-month period is preferred, in order to facilitate longer-term research follow-up.

In terms of the representativeness of the sample it will be important to include a cross-section of companies who work in a variety of regions in B.C., are of variety of sizes (in terms of revenue and number of employees), and work on a variety of different projects (e.g. commercial, industrial, residential). Also, contractors should include both those that only include electrical tradespeople and those that include tradespeople from multiple trades. Likewise, the project should include individual participants of a variety of ages, genders, and experience with the trade.

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Contextual Factors

Training and mentorship do not happen in a vacuum. Individuals have idiosyncratic backgrounds, workplaces vary in market niche and culture, contractors vary in their capacity to support training and mentorship, and the wider economic and political conditions can each affect training and mentorship. Studying the contextual conditions will inform what factors lead to or inhibit success and this knowledge is critical for scaling decisions that follow the pilot.

Worker characteristics

Worker characteristics are the assets or challenges that learners bring with them when entering a program. These may have an effect on participation and the final outcomes of training. These factors include:

1. Basic demographics (e.g. gender, age, education, health),
2. Attitudes toward training,
3. Prior experiences the learners consider relevant such as past mentorship, and
4. Employment history and experience.

Workplace and employer factors

The nature of the workplace can also enable or hinder a mentorship program. The workplace factors can be divided into two categories—*characteristics* of the firm and the *firm experience* particularly as it relates to training and mentorship. Characteristics include the type of business, size of business (e.g. number of employees, gross revenue), sector (e.g. industrial versus residential), training investment/budget, and turnover. Firm experience includes the workplace culture, receptivity to training and experiences with mentorship. Previous research has shown that training receptivity and experiences can be key predictors of the success of a workplace-based program (see for example Gyarmati et al, 2014).

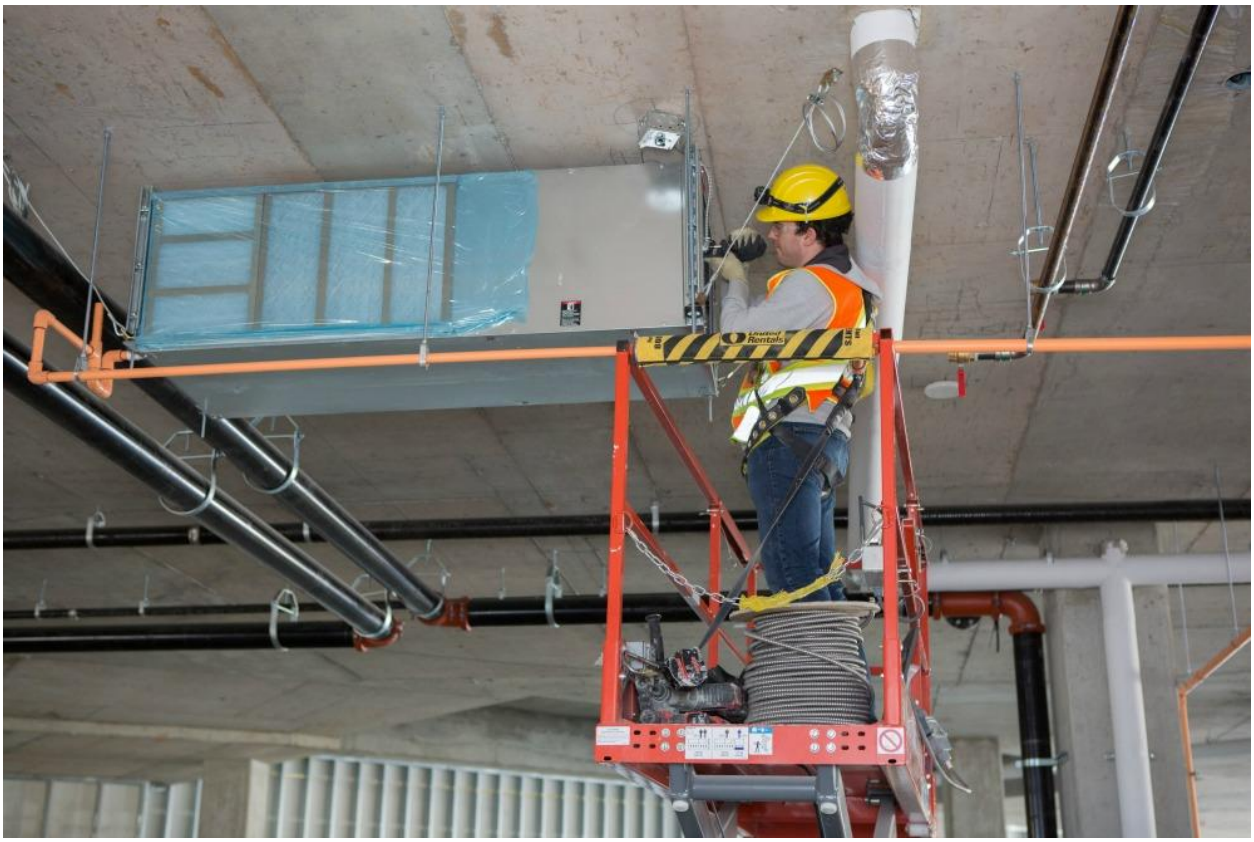
External factors

The economic outlook for the construction industry is often changing in ways that affect other outcomes of interest to this study. External factors are:

1. Economic conditions (e.g. demand, change in the mix project types, like industrial versus residential),
2. Labour market conditions (e.g. number of people leaving and entering the trade, average age of journeyperson), and
3. Policy context (e.g. government training subsidies, pre-existing apprenticeship programs).

The Phase 2 labour market study provides a good profile of the electrical industry in B.C.; this profile will be updated throughout the implementation of the pilot.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications



Anticipated Outcomes and Evaluation

Immediate outcomes

As a result of participating in the program, mentors and mentees are expected to exhibit improved essential skills in communication, teamwork, and problem-solving. These represent the foundations of quality mentorship, and are likely to be associated with improvements in the application of specific mentorship skills such as identifying lesson objectives, demonstrating skills, and providing feedback. Enhanced mentorship is expected to produce improvements in job performance such as reducing errors or increasing task efficiency. Changes are also expected in the areas of psychological capital— variables related to one's attitudes, beliefs, and capacity for change, and social capital—the size and characteristics of one's social networks. These five clusters of outcomes will be measured at baseline (enrolment in the program) and approximately two months after the formal mentor-mentee relationship has been underway. The clusters are summarized below.

Essential skills

For this project the key essential skills of interest are those that are implicit in high quality mentorship, namely, thinking skills, oral communication, and working with others.

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Within the field of workplace training and/or training tailored to the trades sector, assessment instruments related to these Essential Skills are more likely to be subjective (i.e. self-assessed, self-completed by learners) than objective (i.e. competency tests on pre-defined standards) in nature. For example, the Office of Literacy and Essential Skills (OLES) has self-assessment tools available for each of the Essential Skills to guide learners through a series of statements to help them identify strengths and areas for improvement. These tools are available both for jobseekers and workers of all sectors, and for apprentices and tradespeople specifically. Another example of assessment tools related to the trades are the suite of Essential Skills Inventories developed by the Apprenticeship Section of the PEI Department of Innovation and Advance Learning as part of the Trade Essential research project. Self-evaluation of speaking skills was designed for electricians, plumbers, pipefitters, and carpenters. The project team will build on these types of existing measures to create a set of assessments that will accurately reflect the skills of journeypersons and apprentices in the mentorship context for the electrical trade.

Application of mentorship skills

As a result of participating in the project, it is expected that mentors and mentees will exhibit improved mentorship skills and the ability to put the core principles of mentorship into practice. One example list of mentorship skills are the learning outcomes of the Mentorship Matters curriculum. There is a high degree of overlap between essential skills and mentorship skills, and the same instruments should cover both purposes; however, where there is not an overlap, additional items will be added to cover additional mentorship skills.

Mentorship Factors	Mentee Program Factors
▪ Identifying the Points of a Lesson	▪ Effective Communication
▪ Linking the Lesson	▪ Active Listening
▪ Demonstrating the Skill	▪ Asking Questions
▪ Providing Opportunities for Practice	▪ Receiving Feedback
▪ Providing Feedback	▪ Learning Styles
▪ Assessing Progress	▪ Setting Goals

The design of this study will allow us to know whether the BC mentorship program led to changes in other outcomes, as opposed to other events that took place in the same period. However, if we track mentor and mentee's use of mentorship skills, then we will have a better idea of whether the program led to the changes we expected in the way we expected it to. For example, it is plausible that job performance changes, not because journeypersons learned to communicate more effectively, but because they were reminded that their apprentices work reflects on them, so they took extra care to mentor the apprentices. This distinction between knowing "did it work" and "did it work like this" will be necessary for scaling. If this program is put into a new context, some aspects of it will need to adapt to fit. Tracking the application of mentorship skills lets us know what parts of the program need to stay the same, and what parts can change, informing our theory of change.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Job performance

To measure job performance, project staff will conduct an Organizational Needs Assessment (ONA) with each firm and identify their specific needs and gaps using the performance framework developed and validated in Phase 2 of our research. Mentors and mentees will then focus on changing knowledge and performance in these key gaps. The baseline and follow-up research instruments will assess performance in these key areas where gaps were identified in the ONA. While many of the changes may be for the mentees, it is also important to measure performance change for mentors as the act of teaching and mentoring may lead to improved skills and job performance.

Psychological capital

Psychological capital encompasses a number of possible variables related to one's attitudes, beliefs, and capacity for change such as self-confidence, perseverance, and resiliency. These variables are not only important outcomes in their own-right - as part of one's broader health and wellbeing - but they are often also important mediating factors that can influence changes arising from training. In a mentorship context within the electrical trade, we will also want to measure variables such as attitudes towards learning and skills development, motivation and engagement at work, the degree of self-confidence in skills and career, and workers' broader satisfaction with work, their levels of stress, and other indicators of overall health and wellbeing.

Social capital

Similarly, training and mentorship may have a positive effect on the development of social capital. Social capital refers to the resources, or forms of support, that are accessible in one's social networks. This includes bonding social capital which refers to relatively homogenous networks connected primarily by close or strong ties, and bridging social capital, which refers to networks that include important connections with those unlike the participant, usually characterized by distant or weak ties. It is expected that the program will likely enhance not only the *size* and *quality* of networks, but the *extent to which workers utilize them for support*. Improvements in social capital are both important elements of broader wellbeing, as well as key precursors to other desired changes in labour market outcomes including employment and earnings.

Intermediate outcomes

It is expected that even if the formal mentor-mentee relationship does not continue beyond about 2-3 months, mentors and mentees will continue to practice the skills they developed during their time together, leading to further changes which can be observed. Subsequent individual and business level impacts will be measured at about 6 months. For individual impacts we will again measure mentorship skills, essential skills, job performance, and psychological and social capital. We expect that the impacts observed in the first survey will continue and possibly increase. In addition, we will track job and career outcomes related to four categories: job quality (e.g. schedule, benefits), job stability (e.g. hours, patterns of work, risk of job loss, future prospects), job

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

advancement (e.g. apprenticeship completion and worksite seniority), and career vision (a sense of where one wants to go and how this step fits in).

The changes at the individual level as a result of enhanced mentorship are expected to lead to changes in key performance indicators and business outcomes at the firm level such as increased productivity, reductions in errors, improved health and safety leading to reduced injuries and absenteeism, and increased worker satisfaction and retention.

Long-term outcomes

We expect that the impacts—particularly those related to performance improvement and changes in business outcomes—will generate a positive return on investment within one year of participation. Return on investment calculations will be done from the perspectives of participating firms, the B.C. electrical industry, and the B.C. Government; the ROI is expected to be positive from all perspectives. The evidence of their positive impacts and returns further ensure that mentorship training and tools are valued throughout the industry – and will encourage their sustained use in the longer-term to support skills development and knowledge transfer.

With the short duration of crew stability in the trades, it will be difficult to obtain outcome measures beyond 6 months. Nonetheless, there may be a sub-sample of participants for which we have follow-up data at longer lengths, possibly up to 9-months. Depending on the pattern of emerging impacts, it may also be possible to introduce a short "projection period" in order to standardize the follow-up period to, for instance, 12-months after program enrolment. The primary purpose of doing so will be to have a consistent time period throughout the sample for conducting the cost-benefit analysis (CBA) and calculation of returns on investment (ROI). The methods for monetizing costs and benefits and calculating an ROI are described further below.

The overall goal of the B.C. mentorship project is to demonstrate that a structured mentorship program will make a positive impact on productivity, safety and knowledge transfer from skilled to less skilled worker. This entails the design and ongoing improvement of a sustainable model that will respond to evolving industry needs. The pilot phase will include the development of a financing model to be utilized post-project, focusing above all on continued support from industry.

The mentorship program, as contemplated, will ensure that participants gain the competencies in communications and mentorship that have recently been added to Canada's national occupational standard for construction electricians. Assuming continued success, the program would provide a practical model for other construction trades, and hopefully be reinforced in the Red Seal learning outcomes.

To survive and grow for the long term, this ongoing program would require continued quality control to ensure that training is provided properly and effectively; continued evaluation of results at the level of the firm and across the industry; and the ability to adjust the menu of Enhancement Supports. It should have the capacity to provide more advanced training for firms who are especially committed to workplace mentorship, and to devise plans for providing mentorship training to journeypersons.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Methodology

Implementation Research

The implementation research component focuses on studying program implementation including questions related to the influence of context, delivery, and participation on the size and pattern of impacts:

- **Context** – worker and workplace characteristics, broader economic/policy environment the model is implemented.
- **Design, Delivery** – whether the program is implemented as planned (if not why not), whether the systems and resources put in place are sufficient, and whether the curriculum and trainer are effective.
- **Participation, Reaction** – take-up rates, how much of the project participants receive ("dosage"), participant stakeholder reaction (satisfaction, program knowledge).

Implementation research also documents lessons learned from program delivery in order to inform best practices for model replication and scaling.

Impact Study

This section presents a set of options for measuring impacts of the intervention and its ROI. It is not a simple matter of identifying the impacts of training programs on workers and firms. Individual outcomes are dependent on many factors and it is not sufficient to simply compare workers' competencies or performance before and after training as a measure of the effectiveness of that training. For instance, changes in workers' personal circumstances or economic conditions facing the firm can lead to differences in performance over time, independent of the effects of training.

What is required to isolate the effects of the training from all other factors is a ***counterfactual*** – a measure of what would have occurred in the absence of the training. Comparing participants' performance after the training with this counterfactual gives a more accurate measure of the incremental impact of the training. There are three distinct categories of counterfactual designs that are relevant in this context, and each having varying degrees of rigor:

- Pre-post designs, with benchmarking against some external data source (other surveys or administrative data source).
- Quasi-experimental comparison group designs.
- Randomized control trials involving the random assignment of participating companies into two or more groups.

Pre-post designs (possibly with benchmarking)

The first option considers pre-post change for participants and possibly some "benchmarking" of participant outcomes with a similar group of non-participants (e.g. other contractors who did not

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

volunteer for the project). This option is often the most readily available approach and the easiest to implement. However, with this option there is limited effort made in ensuring that the comparison or benchmark group is the same as participants. Therefore, benchmarking studies are almost always biased, as participants differ from non-participants in a number of ways. Differences may be a result of "self-selection"—in other words there is something different about those that choose to join the study from those that do not. The benchmarking data often comes from surveying non-participants or from existing data (such as administrative data on apprentice completion).

There are two other design alternatives which attempt to remove the bias created by self-selection—randomized controlled trials and quasi-experimental comparison group designs.

Random assignment

Both the random assignment design and the quasi experimental design determine the impacts of a program by comparing outcomes of those who participate in a program with another group who receive something different or nothing at all. The difference between the two is randomization; under a randomized control trial (RCT)—as illustrated in Figure 4—individuals who volunteer for an intervention are assigned *randomly*, to either a program group that receives the intervention or to a control (or comparison) group that does not receive it. It is widely accepted this is the best way to construct a counterfactual and measure program impacts. The randomness of the assignment ensures that two groups are the same in terms of all their pre-training characteristics, even those that are unobserved, immeasurable or totally unknown to researchers. As a result, any differences in outcomes of the two groups that are observed after the training can be attributed with confidence to the effect of the program.

The randomization of participants into groups—while being the element that gives the method its power—is also a potential limitation. The determination of what group participants are selected for is entirely based upon a lottery; there cannot be any input by either the participants themselves to select the group they want or by program staff to select who would be best for a given group.

Unit of random assignment

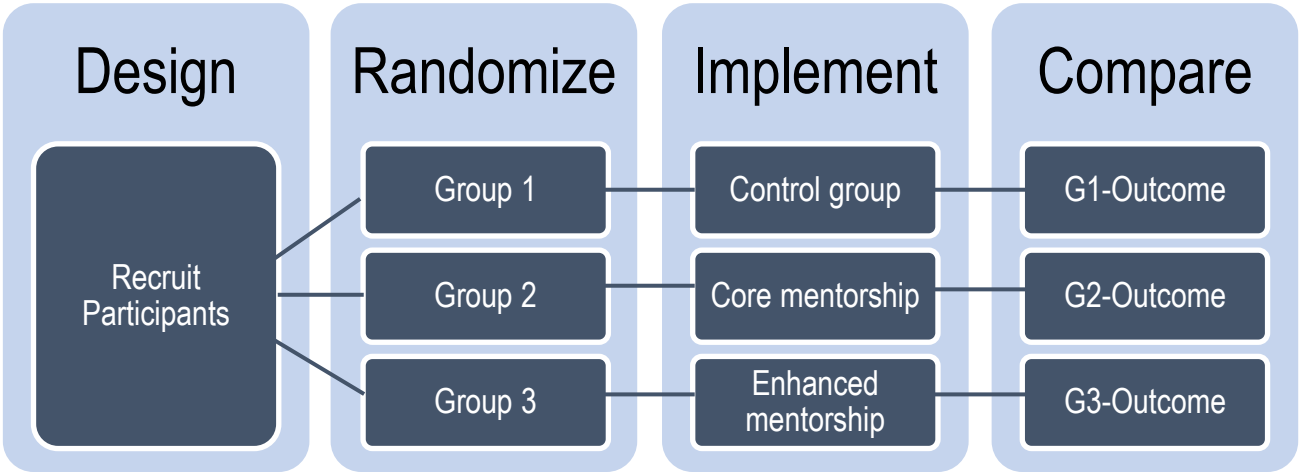
For this demonstration project, random assignment should ideally occur following the recruitment of firms and workers. Where possible, a cluster random assignment design is recommended whereby firms (contractors) are randomly assigned rather than individual participants, each with an equal chance of being assigned to each group. All participating workers within each jobsite will be assigned to the same group, whether the control group, core group, or the enhanced group. Random assignment will be conducted in cohorts of matched pairs (matched pairs of contractors) based on their approximate size and location to ensure equivalent distribution of firms within program and control groups. For instance, if six firms were recruited within a two-month window, they would be matched to similar firms within that cohort based on their size (i.e. revenues, employees, number of participants) and their location, then randomly assigned.

Worksite level random assignment is preferred to individual random assignment in order to minimize interactions between groups. In the event that those involved in the core mentorship model work alongside those who are assigned to the enhanced model, there is a chance that the

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

additional benefits of the enhanced model could also "rub off" on those in the core model. In this case the difference between the two groups would be reduced and the impact of the study would be biased downward.

Figure 4 Illustration of a Random Assignment design



Quasi-experimental techniques

In contrast, with a quasi-experimental technique the selection of the groups is in some way non-random; group assignment can be made by participant selection, staff selection or particular eligibility criteria. In order to compensate for the difference between the groups created by the non-random selection, statistical techniques can be used. The statistical techniques are numerous and vary in exact methods; however, the end result is usually to give those cases in the comparison group who are most similar to the program group on predefined variables more weight while giving those who differ less weight in the calculation of results. These statistical adjustments lead to better estimates of the impact of the program than benchmarking (where no attempt is made to adjust for the differences between groups).

The limitation of quasi-experimental techniques is that statistical adjustments can only be made on characteristics that are observable and measured. In order to ensure that the matching is as comprehensive as possible, quasi experimental techniques often require a lot of quality longitudinal data for all groups. Furthermore, in many cases there are important differences between groups which cannot be observed and therefore cannot be accounted for.

Recommended Methodology

The recommended method is the use of an experimental or quasi-experimental design with a strong counterfactual (not a pre-post or benchmarking study). The final decision on experimental versus quasi-experimental methods should be made in Phase 4 after consultations with prospective participants.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Among the Governance Committee there is a consensus to create a strong counterfactual for the phase 4 pilot project; the project needs credible results from the pilot in order to provide convincing evidence that can be used in the future expansion of mentorship projects. From a research perspective, the best alternative would be a random assignment design; however, from an operational perspective there is some uncertainty whether enough contractors would sign on to participate in being randomly assigned to one of two (or possibly three) groups. Therefore, it is recommended that during the early phase 4 activities, consultations continue with industry to refine the evaluation methodology and whether/how an experimental design could be successfully implemented.[1] One vehicle for this is the employer baseline survey/ONA. In addition to obtaining information from the employer on business needs and performance gaps, the ONA will also be an opportunity to learn more about contractor's reasons for participating and any concerns they have about the project.

Number of groups

For the ***experimental or quasi-experimental methods***, there are three possible groups of participants:

i) a group that receives no intervention;

ii) a group that receives a basic or core level of mentorship training (i.e. Mentorship Matters); and

iii) an enhanced group that receives the core plus additional mentorship supports.

If a three-group design is implemented, researchers could calculate two different impacts—the impact of a **core model compared to no intervention** and the **comparison between the core and enhanced models**.

The three-group design would allow for the most complete results; however, there are a couple of cases where it may be best to implement a two-group design:

- If knowing about the results of the enhanced group is of primary importance and the results of the core of lesser importance it may be better to consolidate the resources of the project and use a two-group design.
- If the number of potential participants who have already received the core mentorship training is so large that the control group would already have near the same experience with mentorship training as the core group would get.

Phase 4 should include the option of a *three-group design* under the assumption that there is interest in understanding the impacts of core mentorship, and a sample can be identified who have not received Mentorship Matters (to date approximately 1,500 apprentices have received Mentorship Matters, suggesting potential samples are *not* saturated)**.** In the event however, that early in Phase 4 there is not sufficient willingness among participating contractors

[1] In the event that a quasi-experimental design is used, it is likely that the costs would be similar to a random assignment design.

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

for a three-group design or those who have not received Mentorship Matters cannot be identified, the project could revert to a two-group design as a fallback.

Minimum detectable effects and minimum sample sizes

When discussing sample sizes, the question arises as to how to be certain that differences between groups in these measures did not occur by chance. To deal with this uncertainty, hypothesis tests are conducted to determine whether the estimates are significantly different from zero – meaning they can be reliably attributed to the program – and to quantify the probability that this conclusion is incorrect.

The kinds of inferences that can be made with hypotheses tests depend on several factors, some of which are outside of the researchers' control, such as the variance of the outcomes. Larger variances increase the uncertainty around estimates and reduce the ability to detect differences that can be reliably attributed to the intervention. However, some parameters, such as the sample size, are within the researchers' control to some extent, particularly, in an experimental design. Larger sample sizes will generally increase the ability to detect statistically significant differences between program and control groups and thereby make reliable conclusions about program impacts. But there is a trade-off – most notably in terms of cost – as larger sample sizes involve greater expense.

Ideally, researchers would like to select a sample of sufficient size to allow them to detect the smallest possible impacts that have policy relevance. These kinds of impacts are usually called **minimum detectable effects (MDEs)**. Small MDEs (which require larger samples) give the evaluator confidence that even if the program produces relatively small impacts, they will be detected. Large MDEs (obtainable with smaller samples) mean that the impacts produced by the program will need to be large in order for the study to have a good chance of detecting them. One can work backwards and calculate the required sample sizes for various MDEs. This allows policy makers to judge the trade-off between MDEs and cost (as increasing the sample size is usually the primary driver of costs) and select a level that meets their budget (and tolerance for higher MDEs – and the risk of not being able to detect a significant effect).

Random assignment of individual workers in a sectoral model

With random assignment of workers, MDE calculations are straightforward. Sample size requirements for these kinds of estimates vary according to **significance level** (usually set at 0.05 – which is often an acceptable risk of false positives), **power** (in statistical terminology, 1-β, the likelihood of detecting a difference when it is true, often set at 80 per cent – a manageable risk of false negatives at 20 per cent), the **variance of the outcome** measure (which should be estimated conservatively – in the case of discrete outcomes, it is largest at 50 per cent), and the **MDE**, the minimum size of the difference that one is able to detect. Under these conservative assumptions for significance, power, and variance, the **sample size** requirements presented in Table 1 are derived for various minimum detectable effects. These would apply to an evaluation of a sectoral model using individual-level random assignment**.**

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Table 1 Sample Size Needed for Given MDEs, Sectoral Recruitment

Minimum Detectable Difference (percentage points)	Total Sample Size Needed (per group)	Total Sample Size Needed (in program and control groups—two group)	Total Sample Size Needed (in two program groups and control group—three group)
19.8	100	200	300
14.0	200	400	600
11.4	300	600	900
9.9	400	800	1200

Recommendation

Based on this data and analysis the recommended minimum sample is 200 per treatment group (after attrition); in such a case each group would include approximately 100 apprentices and 100 journeypersons. Evaluators would need a sample size of 400 to detect a difference in outcomes of about 14 percentage points between program and control groups in a two-group design and 600 in a three-group design. However, one must also account for sample attrition which—based on SRDC's previous studies—may be in the range of about 20 per cent. According to our estimates, a minimum of500 workers would be required to ensure a final sample of 400. Fourteen percentage points is however a large MDE. **A sample of 500 should therefore be treated as a MINIMUM target sample size.**

A more optimal target sample size would be 900, after attrition, divided across three groups. This would reduce the MDE to 11.4 points in a three-group design and to less than 10 percent in a two-group design. This assumption will be used for initial pilot cost estimates.

Cost-Benefit Analysis, ROI Study

While an intervention may generate impacts, the question that must be posed is: at what cost? A Return on Investment (ROI) study completed through a rigorous cost-benefit analysis will provide estimates of the ROI to each of the different stakeholders including workers, firms, and government. SRDC will conduct a full costing study to capture both direct and indirect costs borne by each of the stakeholders. SRDC will also monetize all benefits derived from the impact study at the worker, firm, and government level including financial outcomes and estimates of non-financial outcomes.

Combining costs and benefits derived from a randomized control trial will provide reliable estimates of the return on investment; costs and benefits are assessed by monetizing various program impacts (the difference between control, core and enhanced groups). An analysis of how these returns vary for different workers, firms and in different contexts will also be conducted.

Part of what makes cost-benefit analysis so appealing to policy makers – putting dollar values on program impacts – can also be one of its limitations. While this approach aims at monetizing all of the consequences and use of resources associated with a program, it is not always possible to do so. This might be the case either because some of these consequences are intangible or because, even if

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

they are in some way measured, they may remain difficult to monetize. For example, an LES intervention might increase job satisfaction and employee morale in ways that enrich firms and workers' lives, but which are hard to measure. Various approaches to monetizing some of these intangible effects will be explored.

Data Collection Sources and Timing

This section provides detail on the collection of data on the topics outlined in the logic model and evaluation framework described above. As with many studies, this strategy is a balance between comprehensively collecting data on the relevant indicators while at the same time trying to minimize the data collection burden on participants in the project. Where possible, existing data sources will be used—such as data on apprenticeship completion; however, these sources only cover a small fraction of the indicators and so the bulk of the data will have to be collected through participant and employer surveys.

The core component of the data collection strategy are the surveys of mentors, mentees and contractors. **For contractors, two waves of data collection are proposed.** The first wave would be a baseline survey (ONA) completed partly online, and where possible, partly in-person or over the phone. It would take place immediately prior to the start of the project with the aim of obtaining background information about contractors and further details on their business needs and performance gaps to support tailoring of the program. The information also serves as a baseline and can be compared to follow-up responses to determine change.

Contractors will also be asked to complete one follow-up survey which will take place approximately 6 months after the first survey. The goal of this survey is to track employee performance and business outcomes. In some cases, employers may be able to provide administrative data on KPIs rather than completing the entire survey. For contractors, each survey wave will be approximately 45-60 minutes in length; however, at larger contractors it may be worthwhile to have the survey completed by respondents at multiple levels within the organization (e.g. a senior manager and foreperson).

It is proposed that **participating mentors and mentees complete surveys at three points throughout the project;** just prior to start of project (baseline), near the end of a formal mentor-mentee relationship, in most cases this would be about 2 months (first follow-up) and approximately 6 months after the first survey (second follow-up). Each survey would be approximately 45-60 minutes. The survey would be self-completed by the respondent without the assistance of interviewer. The interview could be programmed to be completed on either a mobile device or computer.[2] The key topics for each survey wave are as follows:

- **Baseline:** background information about participants and baseline measures of potential outcomes (e.g. essential skills, job performance)

[2] If access to the internet on a job site is problematic it could also be completed "pencil and paper".

Canada BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

- **First follow-up:** Mentorship skills, essential skills, job performance, psychological and social capital.
- **Second Follow-up:** Similar to first follow-up plus a limited number of questions related to job stability and career progression.

As noted at the October 23rd Governance Committee meeting, there may be reluctance on the part of some companies—especially those where a large number of employees are participating—to offer release time to complete three waves of data collection. Likewise, some mentors and mentees may be reluctant to do the surveys on their own time. **Therefore, the project budget should include provisions for some type of recognition of the time involved in completing the surveys.** Options include:

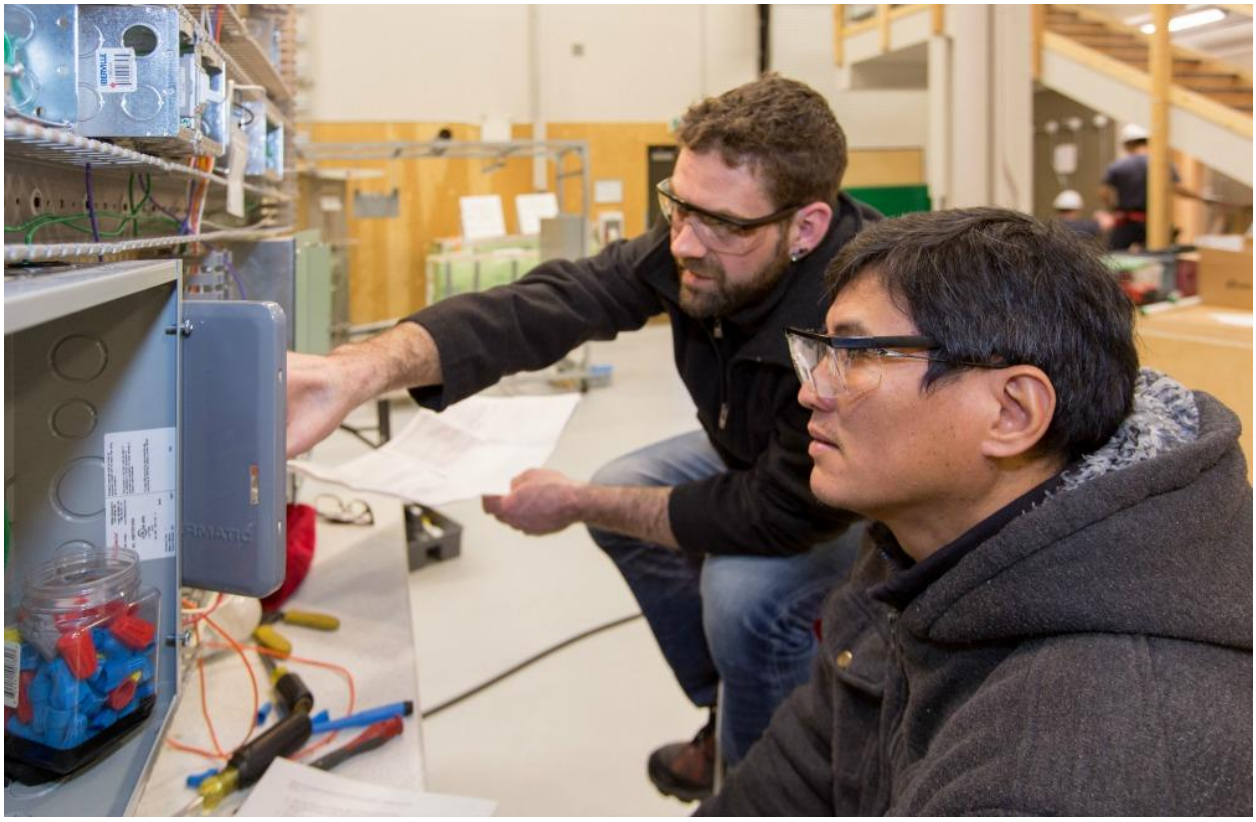
- Recognizing any release time provided by contractors as a cash contribution to the project.
- Include funds in the project budget for reimbursement of contractor research release time.
- Include funds in the project budget to pay mentors and mentees directly for completing surveys on their own time.

Implementation research data

Beyond the surveys to employers, journeypersons and apprentices, researchers will make a limited number of site visits to observe participant enrollment/baseline data collection, train-the-trainer sessions, mentorship workshops, and employer quality assurance activities. Each of these visits will be supported by observation protocols to ensure standardization between researchers and to ensure that data is gathered for all of the implementation research questions. During each visit, researchers will schedule interviews with SkillPlan and/or industry trainers to garner further information on how the project is operating. Semi-structured interview protocols specific to the various roles in the project will be developed.

It will be important to track the degree of participant engagement with program services and supports and the extent of mentorship activities. For each mentorship workshop, instructors will be asked to record attendance and the topics covered during the session (e.g. the level of customization). For ongoing stages of the enhanced mentorship, methods will need to be designed to track interactions between mentor and mentee as well as how much the participants use the enhanced mentorship materials that are developed. Wherever possible, the tracking tools will be integrated with other mentorship enhancement supports such as the project website or the online competency mobile device.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications



Communications and Outreach

The pilot phase of the BC Mentorship Project will also test communications strategies and tools to determine which are most effective in recruiting and retaining contractor participants in a mentorship training program.

In Year 1 of the pilot, the project team will be engaged in direct contact with participants and potential participants. This will be supported by the early development of a project website where firms can learn about the project, registration procedures and the course outline. Communications will depend on B.C. testimonials and evidence of success in other jurisdictions to promote the benefits of workplace mentorship.

The project team will also prepare brief videos and worksite promotional materials for the implementation stage. In distributing materials, the Mentorship Project will work as much as possible through existing channels, such as the websites and social media accounts of industry associations and participating firms. Materials and special events may be co-branded with participating firms and associations.

The Governance Committee has considered the possibility that industry awareness of the project could be raised through recognition and awards for outstanding participants. There may also be an appetite for some form of certification for participants who complete mentorship training.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

The completion of the pilot, assuming the results are favorable, will provide an opportunity to communicate new findings on workplace mentorship to industry in B.C. and across North America.

In the end, the mentorship program will thrive based on the fact that it responds to a genuine industry need and offers a solution that will provide value for union and non-union firms in all parts of the province. Mentorship communications will focus on business outcomes and return on investment as measured in Phase 4.

It can be anticipated that the following steps will form a part of the ongoing outreach strategy:

- Recruit champions from the Governance Committee and the pilot participants to carry the message: to sign letters and e-mails, deliver presentations and speak at conferences. There are an estimated 2200 electrical contractors in B.C.; a little personal contact can go a long way.
- Collect testimonials from employee participants who recognize the value of mentorship to their team and to the industry.
- Respond to the public expectation that communications media will be interactive. Provide an online forum and ensure timely responses to questions and concerns.
- Stretch the communications budget by making repeated use of images, arguments and calls to action across multiple platforms. Make use of existing communications channels such as industry association websites and digital media accounts.
- Include questions about communications tools and program awareness in the evaluators' surveys of project participants.
- Recognize that the program may only appeal to a minority of contractors in the beginning and work hard to provide excellent service to that group.

Canada
British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECAWC
SKILLPLAN
MainStreet Communications

References

Gyarmati, D., Leckie, N., Dowie, M., Palameta, B., Hui, T., Dunn, E. & Hebert, S. (2014). UPSKILL: A Credible Test of Workplace Literacy and Essential Skills Training—Technical Report. Ottawa: Social Research and Demonstration Corporation.

Gyarmati, D., Lalonde, P., & Dowie, M. (2017). Enhancing Mentorship for the Electrical Trade in British Columbia – Final Report. Ottawa: Social Research and Demonstration Corporation.

Jobs, Tourism and Skills Training BC (JTST). (2016). Sector Labour Market Partnerships Program Strategy & Evaluation Guidelines.

National Centre for Vocational Education Research (NCVER). (2006). Reframing adult literacy and numeracy course outcomes: A social capital perspective. Balatti, J., Black, S., Falk, I.

Canada British Columbia
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC IBEW Local 213 & ECAWC SKILLPLAN MainStreet Communications

Canada
BRITISH COLUMBIA
Funding provided through the Canada-British Columbia Labour Market Development Agreement.
SRDC
IBEW Local 213 & ECABC
SKILLPLAN
MainStreet Communications