Improving Performance through Mentorship:

A National Demonstration Project
Background

• BuildForce Canada, SkillPlan, and SRDC have partnered to undertake a national initiative to develop, and implement an innovative mentorship training model that will support Canadians to improve their skills to get and keep a job, and adapt and succeed at work.
• BuildForce Canada is a national industry-led not-for-profit organization committed to working with the construction industry to provide information and resources to assist with its management of workforce requirements.
Over 25 years, SkillPlan has trained thousands of apprentices and journeypersons and provided resources to help build a more productive, safe and stable workforce.
The Social Research and Demonstration Corporation (SRDC) is a not-for-profit research organization, with offices in Ottawa, Toronto, and Vancouver, created specifically to develop, field test, and rigorously evaluate social programs.
Primary goal is to develop, implement, and evaluate a customized mentorship training program.

- Carpentry
- Electrical
- Finishing Trades
- Insulators
- Piping & Welding
- Reinforcing
- Optional others

This project is funded in part by the Government of Canada’s Adult Learning, Literacy and Essential Skills Program.
<table>
<thead>
<tr>
<th>Step</th>
<th>Activity</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Marketing and Recruitment of Participants</td>
<td>August 2017 – February 2018</td>
</tr>
<tr>
<td>Step 2</td>
<td>Organization Needs Analysis</td>
<td>December 2017 – May 2018</td>
</tr>
<tr>
<td>Step 3</td>
<td>Mentorship Program Design</td>
<td>March 2018 – September 2018</td>
</tr>
<tr>
<td>Step 4</td>
<td>Train-the-Trainer</td>
<td>July 2018 – October 2018</td>
</tr>
<tr>
<td>Step 5</td>
<td>Mentorship Program Delivery</td>
<td>October 2018 – September 2020</td>
</tr>
<tr>
<td>Step 6</td>
<td>Research / Data Collection Ongoing</td>
<td>September 2018 – September 2020</td>
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Mentorship Core Workshops

Goal: Enhance the quality of mentorship by improving key underlying skills of both mentors and mentees in 6 core principles

**Workshop 1**

**Mentoring Program**

- **Step 1:** Identify the Point of the Lesson
- **Step 2:** Link the Lesson
- **Step 3:** Demonstrate the Skill
- **Step 4:** Provide Opportunity for Practice
- **Step 5:** Give Feedback
- **Step 6:** Assess Progress

**Workshop 2**

**Apprentice: Communications Program**

- **Step 1:** Effective Communication
- **Step 2:** Active Listening
- **Step 3:** Receiving Feedback
- **Step 4:** Asking Questions
- **Step 5:** Learning Styles
- **Step 6:** Setting Goals

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Delivery of Workshops

- lesson
- vignettes
- activities
- workbook

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Improving Performance through Mentorship Project

Mentoring

Health & Safety

Productivity & Efficiency

Service Quality & Client Relations

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Core Mentorship Programs

- Six key principles of what it means to be a strong mentor and mentee
- Short videos reinforcing key mentor and mentee principles revolving around performance gaps
- Practice activities and scenarios
- Pre and post training surveys
- Trainer guide and material with accompanying participant workbooks

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Mentorship On-the-Job Enhanced Optional Tools

- Jobsite mentorship orientation program
- Guidelines for mentorship discussions at toolbox and safety meetings
- Online mobile app for tracking activity and progress
- Online programs for further training in mentorship principles
- **Quality Assurance** by the project team
• Checklists and documentation that can be used in toolbox and safety meetings
Mentorship Program – Enhanced Program

• Jobsite mentorship orientation program
Mentorship Program – Enhanced Program

- Online mentorship competency mobile app
  - ✓ Logbook
  - ✓ Photos for record keeping
  - ✓ Skills profile
  - ✓ Review of competencies
Mentorship Alliance Video

https://youtu.be/R9g0xcNk2RM
Research Design

- Developing a **research framework** and **methodology** for assessing the impact of mentorship training and its return on investment (ROI) for business

- **Research framework** – specifies the types of outcomes and indicators that will be used to measure the effects of the mentorship program

- **Methodology** – outlines the data collection strategy and methods for determining the impacts and its ROI
  - **Data collection strategy** – sources and timing of collection e.g. surveys, administrative data
  - **Methodology to isolate effects of mentorship** – pre-post analysis vs. comparison group designs
Research Design

- **Research framework** – a rich set of outcome measures for both the individual worker level (journeyworkers, apprentices) and **businesses** (contractors)

- **Primary indicators** will include the following:
  
  - **Skills** – gains in mentorship skills; key soft skills that drive mentorship quality
  - **Job Performance** – Improved task execution in key areas that drive business results determined by the organizational needs analysis (ONAs)
  - **Business Impact** – productivity, health and safety, service quality
  - **Other worker Impacts** – improved job stability, job satisfaction, mental and physical health and well being
## Distinguishing Types of Metrics

<table>
<thead>
<tr>
<th>Level</th>
<th>Business Outcomes</th>
<th>Job Performance</th>
<th>Technical Skills</th>
<th>Essential Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Business needs, Priority Areas</td>
<td>Employee Job Performance Areas</td>
<td>Links to key measure in the Red Seal</td>
<td>Foundational skills key to performance and mentorship</td>
</tr>
<tr>
<td></td>
<td>Business-level Indicators</td>
<td>Employee-level Performance Indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Improving Health and safety</td>
<td>Safe Work Practices</td>
<td>Using, maintaining, and storing personal protective equipment (PPE) and safety equipment</td>
<td>Red Seal Occupational Standards A-1.01</td>
</tr>
</tbody>
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Our focus

Level  
Business Outcomes  
Job Performance  
Essential Skills

Type  
Business-level Indicators  
Employee-level Performance Indicators

Example  
Fewer injuries on the job  
Using, maintaining, and storing personal protective equipment (PPE) and safety equipment  
Foundational skills key to performance and mentorship  
Effective Communication  
Working with Others  
Problem-solving
Business Priorities

1. Health and Safety
2. Productivity
3. Service Quality
4. Client Relations
5. Human resources
## Business-level KPIs

<table>
<thead>
<tr>
<th>Health and Safety</th>
<th>Productivity and Efficiency</th>
<th>Service Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td># injuries</td>
<td># days/$ cost over-budget due to delays on key work orders/jobs</td>
<td>Overall quality metrics from QA/QC reporting</td>
</tr>
<tr>
<td># accidents</td>
<td>Efficiency metrics compared to industry standards</td>
<td># of deficiencies from compliance reporting</td>
</tr>
<tr>
<td># near misses</td>
<td>Ratio of Time-on-Tools (ToT) – contributing vs. non-contributing time</td>
<td># of client complaints</td>
</tr>
<tr>
<td># incidents of safety violations</td>
<td>Unit cost metrics for particular work orders</td>
<td># of days/$ cost over project budget due to errors, or re-installations</td>
</tr>
<tr>
<td>$ replacement costs for absent workers</td>
<td>$ cost measures of wastage</td>
<td></td>
</tr>
<tr>
<td>$ productivity loss for down time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ costs for WCB premiums</td>
<td></td>
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</tr>
</tbody>
</table>
## Worker Performance Gaps

<table>
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<th>Health and Safety</th>
<th>Productivity and Efficiency</th>
<th>Service Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complacency in the use of some PPE</td>
<td>Task inefficiency – challenges in task planning and execution</td>
<td>Lack of clarity in specifications and/or expectations regarding the level of quality e.g. understanding when good is good enough</td>
</tr>
<tr>
<td>Poor quality completion of field hazard assessments (going through the motions)</td>
<td>Handling change orders – difficulty adapting to work interruptions</td>
<td>Gaps in planning and execution arising from not understanding the big picture</td>
</tr>
<tr>
<td>Inconsistent housekeeping and elimination of workplace hazards</td>
<td>Materials handling – ineffective planning and organization of tools and equipment</td>
<td>Gaps in communication or understanding of the QA/QC process</td>
</tr>
<tr>
<td>Cutting corners in the safe operation of some tools and equipment</td>
<td>Poor attitude/diligence in maintaining Time-on-Tools – minimizing down-time</td>
<td>Overly focused on productivity at the expense of quality e.g. short-term thinking due to time pressure</td>
</tr>
<tr>
<td>Inconsistent reporting of safety incidents and near misses</td>
<td>Challenges with labour scheduling</td>
<td>Poor communication with other trades</td>
</tr>
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Mentorship Skills

Mentors

- Clear communication of objectives
- Linking job tasks to the bigger picture
- Demonstrating the skills effectively
- Providing opportunities for practice
- Giving effective feedback
- Assessing progress
Mentorship Skills

Apprentices - Mentees

• Effective two-way communication
• Using active listening skills
• Seeking feedback and receiving it constructively
• Asking strong open-ended questions
• Being aware of one’s own learning style
• Setting goals
Data Collection Strategy

- Minimize the burden while maximizing its relevance to business
- Utilize existing data where possible, supplementary surveys

**Participant surveys** – for journey workers and apprentices – to assess skills and performance of mentees and mentors

**Employer data** – admin sources where possible, supplementary surveys to measure changes in KPI’s at crew or project level

**Provincial data** – apprenticeship outcomes, completion rates

- All data measured at three points in time - pre-baseline, baseline, follow-up, separated by 3-6 months
Methodology for measuring impacts and ROI

- Pre-post measures alone will lead to biased measures of the effects of mentorship training and its ROI
- Need to account for the “noise” and change that happens unrelated to training

**Need a counterfactual** – a measure of what changes would have happened without training

**Comparison group design** – change between the pre-baseline and baseline serves as the counterfactual, which post-program changes can be compared against
Data Collection Timelines

**Train-the-Trainers**
Example Timeline: August 2018

**Core Mentorship Workshops**
Example Timeline: January 2019

**Workplace Supports**
Example Timeline: Ongoing between January to June 2019

Normal changes observed prior to the intervention ($\delta_1$)

Changes observed over the course of the intervention ($\delta_2$)

**Pre-Baseline**
Example Timeline: September 2018

**Baseline**
Example Timeline: January 2019

**Post-Intervention**
Example Timeline: July 2019

Changes as a result of the mentorship program

$$\text{Impact} = \delta_2 - \delta_1$$
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