



# TRADE ESSENTIALS

Testing a New Approach to Apprenticeship Training

FINAL REPORT

Canada 



Innovation and  
Advanced Learning

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*We've seen dramatic changes happening on the floor because of these confidence levels that are soaring. The guys are not too scared to step forward now and express their ideas and get their ideas out there and make them happen. Those are a few of the changes that we've seen just since...Trade Essentials....*

C. Matheson, HR Manager, Trout River Industries

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# Foreword

**The following report outlines the results of the Trade Essentials research project as it followed 125 research subjects from their initial entry into the Trade Essentials apprentice learning path and their status at the end of the three-year project.**

*Trade Essentials is a research project* funded under the Pan-Canadian Innovations Initiative, Human Resources and Skills Development Canada, in partnership with the Apprenticeship Section of the Prince Edward Island Department of Innovation and Advanced Learning. The project has focussed on increasing participation in trades by providing a well-defined pathway and learning tools for each client to build on present skills and access services necessary for success in their occupation. Key features of the program are that it is:

- contextualized to a specific trade (e.g., welding, cooking);
- adaptable and flexible to diverse environments (mobile); and
- a client-centred/asset-based approach (starting from a point of success).

A number of educational tools were created and tested for thirteen trades.<sup>1</sup> These tools are available in both official languages for adaptation in any Canadian jurisdiction.

**The results of the research outlined in this report will be of particular interest to prior learning assessment practitioners, essential skills groups, apprenticeship organizations, trade schools and colleges, aboriginal groups, immigrant organizations, sector councils, career practitioners, policy makers, public schools, employers and any other groups who may desire to adapt these tools to the unique needs of their clients.**

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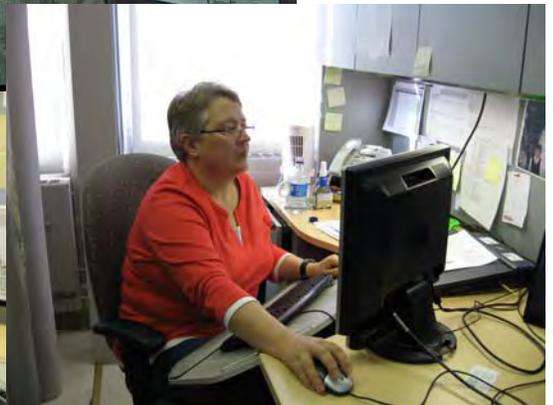
<sup>1</sup> Automotive Service Technician – Cabinetmaker – Carpenter – Construction Electrician – Cook – Industrial Electrician – Machinist – Metal Fabricator – Oil Burner Mechanic – Plumber – Refrigeration and Air Conditioning Mechanic – Steamfitter/Pipefitter – Welder

# About the Project Team

The project involved collaboration among experts recruited from across PEI and a hard-working support team. Members throughout the term of the project included:

**Apprenticeship Section, Manager**  
**Apprenticeship Section, Manager (Former)**  
**Apprenticeship Section, Manager (Former)**  
**Trade Essentials Administrative Assistant**  
**Trade Essentials Communications and Curriculum Development**  
**Trade Essentials Contract Staff**  
**Trade Essentials Curriculum Development**  
**Trade Essentials Data Technician**  
**Trade Essentials Essential Skills Coordinator**  
**Trade Essentials Project Consultant**  
**Trade Essentials Project Manager**  
**Trade Essentials Recognition for Skills and Learning Coordinator**  
**Trade Essentials Trades Consultant**

**Sue LeFort**  
**Craig Norton**  
**Karen Redmond**  
**Doreen Eynon**  
**Karen Chandler**  
**Angela Larter**  
**Karen Dempsey**  
**Pat Sargent**  
**Ruth Rogerson**  
**Don Anderson**  
**Sheila Lund MacDonald**  
**Gaelyne MacAulay**  
**Rob Sanderson**



# Acknowledgments

*Our sincere thanks to* the **Trade Essentials Advisory Committee**<sup>2</sup> for their suggestions, input and ongoing support. We wish to particularly note the efforts of the individuals who served terms as Advisory Committee Chairpersons, Phillip McInnis and Ross Barnes, both representing the Construction Association of Prince Edward Island.

We are grateful to the assessors, tutors and classroom instructors<sup>3</sup> who patiently piloted our materials and who gave back invaluable insights and feedback.

Dr. Betty Bailey provided her research and analysis expertise in preparation of the technical report.

Ongoing advice, administrative direction and support were gratefully received from the Province of PEI Department of Innovation and Advanced Learning and the Apprenticeship Section.

This effort could not have been possible without the funding support of the Government of Canada and the Pan Canadian Innovations Initiative and co-management by the Apprenticeship Section of the PEI Department of Innovation and Advanced Learning.

**Finally, we wish to recognize the valuable contribution made by the apprentices and challengers who volunteered to participate in this research project. It is our sincere hope that they have gained as much from their participation as we have. We also hope that the results of their contribution will assist many more tradespeople to reach their goals.**

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<sup>2</sup> For a list of Advisory Team members, please refer to Appendix "A"

<sup>3</sup> For a list of Assessors and Instructors, please refer to Appendix "B"

# Abbreviations

- AST Automotive Service Technician
- CBM Competency Based Model
- CF Curriculum Framework
- ESI Essential Skills Inventory
- GED General Education Diploma
- ILM Individual Learning Module
- IP Interprovincial Exam
- NOA National Occupational Analysis
- PLAR Prior Learning and Assessment Recognition
- PSR Professional Skills Record
- RPL Recognition of Prior Learning
- RSL Recognition for Skills and Learning
- TE Trade Essentials
- TSI Technical Skills Record



# Executive Summary

## ***The Trade Essentials***

**project** has left a legacy of resources and information that is very adaptable to a variety of learning environments involving adult learners in trades. These include the tools for 13 trades and related guidebooks, a database structure, a web presence, and, most importantly a detailed learning path process. These materials can be used to guide clients from a point of personal understanding, confidence and power, toward fulfilling their skills needs and their career goals.



What has been accomplished through this project represents another step along the path of national research activities to develop educational approaches that respect and meet the needs of all learners. This work recognizes there is not a “one-size-fits-all” format to learning and education. Trade Essentials has built a pathway to learning that considers the starting points and unique needs of learners to help them be successful in achieving their personal goals.

## **The Project**

***The primary objective of the Trades Essentials project*** was to increase participation in trades training by providing a well defined pathway for each client to build on present skills and access services necessary for success in their occupation. Initially named *Path to Success*, the project officially commenced on April 2<sup>nd</sup>, 2007 and concluded on March 26, 2010. This project represents efforts to develop and provide a seamless learning path to trades certification in the Province of Prince Edward Island (PEI) with applications for other jurisdictions.

**What this project represents are efforts to develop and provide the first seamless learning path to trades certification in the Province – a process geared to making apprentices successful by helping them build on present skills and access services necessary for success in their occupation.**

The main objectives of the project were to:

- develop and test contextualized assessment tools for both essential skills and technical skills
- provide essential skills interventions
- develop contextualized essential skills curriculum frameworks
- provide essential skills interventions with clients
- test the model and tools
- develop a prior learning assessment and recognition (PLAR) assessment tool and implementation model.

The project focused on coordinating efforts to include prior learning assessment and essential skills training into apprenticeship for an integrated service delivery experience for Island tradespeople. It is hoped that this model will assist individuals who would like to complete apprenticeship but have been impeded by inadequate essential skills and/or lack of training. The desired end-results of the project were to

- provide more opportunities for clients to increase their essential skills levels
- increase the percentage of trade workers who enter apprenticeship and subsequently challenge the Red Seal certification exam
- create a user-friendly, safe, non-threatening learning environment
- create a learning path for tradespeople to reach certification
- develop trade skills records, essential skills inventories and essential skills trades curriculum that can be used in other jurisdictions
- develop innovative services that can be adapted into the apprenticeship system
- increase essential skills of participating research subjects
- increase the confidence of participating research subjects.
- increase the capacity of clients to understand and use safe work practices by including safety material in essential skills program curriculum

## The Selected Trades

### Trades

- |   |                               |   |   |
|---|-------------------------------|---|---|
| ▲ | Automotive Service Technician | ▲ | Metal Fabricator                            |
| ▲ | Cabinetmaker                  | ▲ | Oil Burner Mechanic                         |
| ▲ | Carpenter                     | ▲ | Plumber                                     |
| ▲ | Construction Electrician      | ▲ | Refrigeration and Air Conditioning Mechanic |
| ▲ | Cook                          | ▲ | Steamfitter/Pipefitter                      |
| ▲ | Industrial Electrician        | ▲ | Welder                                      |
| ▲ | Machinist                     |   |   |



### Features

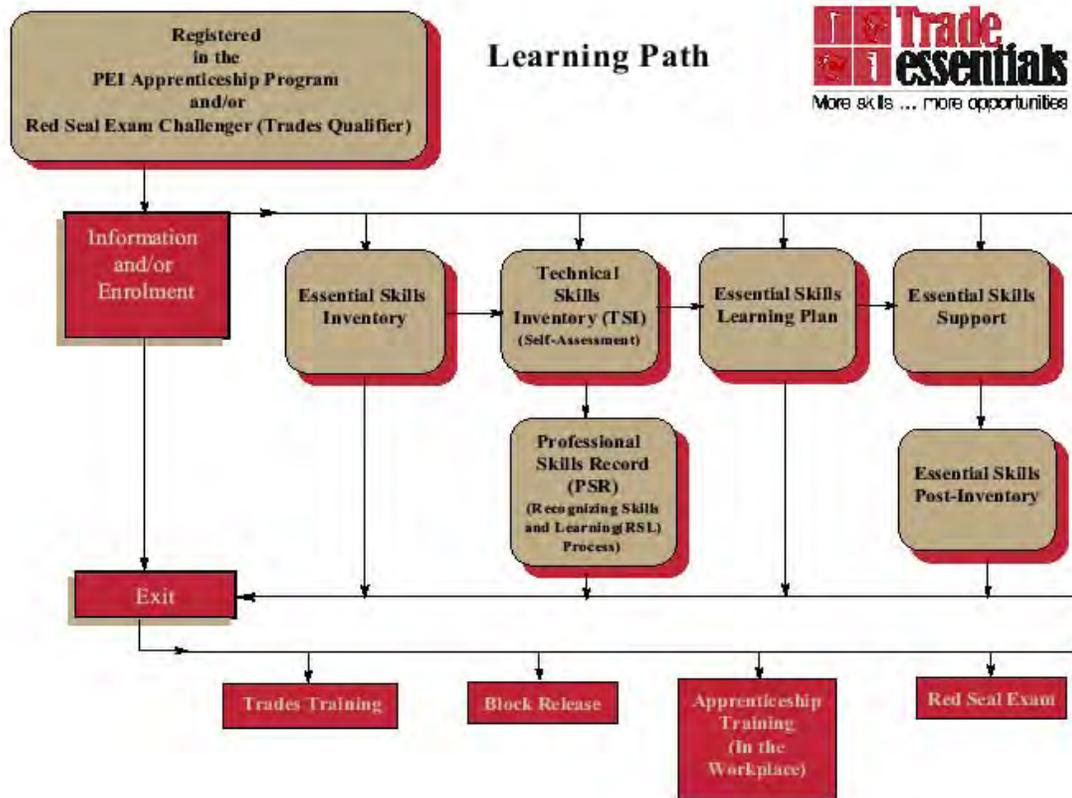
The Trade Essentials approach has proven to be an innovative program with a number of factors contributing to its success. The program

- was specifically designed for adult learners
- focused on individual learning and building on existing skills
- offered guided self-assessment to identify learner needs
- was scheduled to fit around work schedules
- was offered group sessions as well as one-on-one tutoring
- used trade-related learning materials
- offered assessment of learning and skills in the workplace
- was offered free of charge
- did not interrupt earnings

The project has resulted in the development of a comprehensive process to guide individuals through the apprenticeship system, regardless of their entry point as represented in the chart below.

## The Client Learning Path

M  
O  
D  
E  
L



## The Tools

*Throughout the project*, tools were developed and tested with participants. The objective was to create instruments that would identify skills gaps and facilitate each apprentice's learning path. In fact, the development of these contextualized materials represents the innovative aspects of the project and it was these components that made the project most valuable to the clients. Because the materials are based on the Essential Skills Profile and/or the National Occupational Analysis and are trade-specific, the apprentices can see the relevance of these instruments to their needs.

## The Research

**Data was collected for** 125 research subjects as per the contract requirements. Research subjects were identified as the first 125 having more than one hour of intervention (this includes the essential skills assessment). Of these individuals, 106 entered a program to address gaps in their essential skills. The remaining research subjects who did not enter into an intervention either did not have significant essential skills needs, had prior work or family commitments, or made the decision that their skills were sufficient to successfully challenge the Red Seal Exam.

### Essential Skills Data Summary<sup>4</sup>

- 125 research subjects
- 106 attended interventions
- 19 were assessed but did not participate in programs
- 73 of the 125 chose to challenge the Red Seal exam
- 48 of the 73 (66%) achieved Red Seal certification

## Observations from the Research

### Demographics

- The Trade Essentials Project was accessible to individuals in all three counties of Prince Edward Island.
- Participation was dispersed across a wide age range.
- The program had a universal appeal, attracting participants from across all geographic regions of the Province.
- Similar to many trades programs, females in the Trade Essentials Project were under-represented in all trade occupations other than cooks; attracting women to traditionally male trades continues to create challenges on P.E.I.
- The data indicated that carpentry had the greatest representation with 46.4% of the clients being from that trade. This makes sense when considering that many carpenters start out as general labourers on construction crews and build their skills on the job.
- Sixty-five percent (65%) of the clients had been out-of-school for more than 15 years.
- Almost 80 percent of the clients were over the age of 30.

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<sup>4</sup> These numbers were as of the time of data interpretation. The numbers will change as more research subjects complete their interventions. For example, at the time of report writing, 53 Red Seal challengers were successful, an increase from the 48 at the time of data compilation.

- Age did not appear to be a significant factor in the number of clients requiring Essential Skills training.
- When a project meets the needs of the clients, individuals of all ages are willing to return to training to improve their work related opportunities.

## Job Mobility

Increased job mobility was initially thought to be a key consideration of those enrolling in the program. A follow-up telephone survey was conducted among those who were successful in obtaining certification and mobility out of province was not a key factor. Out of 37 responses, the majority was employed on PEI and only 6 responded that they may consider moving off Island within one year. The three who said they were likely to move were certified in a trade that had limited labour market spread on PEI (e.g., steamfitters/pipefitters).

## Client Preferences

- The majority of clients (94.2%) preferred evening training sessions.

## Marketing and Incentives to Enrol

- The most effective modes of information transmission were the Trade Essentials staff and word-of-mouth.

## Learning Needs

- Numeracy, technical reading and document use, respectively, were of most concern to a large portion of the clients.
- The vast majority of the clients learned best through visual and kinesthetic means.
- A large portion of the research subjects underestimated their Essential Skills needs. This finding may help to explain why some tradespeople have difficulty passing the Red Seal exam as they are not good predictors of their own skills sets, and, consequently, may not be good predictors of the level of knowledge required to pass an exam.
- The most common difficulties encountered by the clients were questions related to math, the code book, reading and understanding questions, and limited technical knowledge of the trade.
- Through the Technical Skills Inventory, learners were able to identify their technical skill gaps and create a learning plan to fill these needs.

## Success Challenging Exams

- A high percentage of the 125 research subjects who attempted the Red Seal exam were successful (65.8%).
- The data indicated that those who registered in the apprenticeship system between 6 and 15 years had a higher success rate.

- The pass rate was much higher for those who had previously written the exam suggesting that prior experience with writing a Red Seal exam is very helpful in a subsequent attempt.
- Since the start-up of the Project, the number of individuals attempting the Red Seal exams in the Province has increased. There is additional evidence that the number of tradespeople challenging the exam from the program is continuing to increase.
- Between 40-80 hours of intervention yielded the best results.

## Client Success and Essential Skills

- Having a high school education does not always correspond with having the Essential Skills required for a trade.
- While a higher essential skill level might be the ultimate goal of the project, once a client passes the Red Seal exam there is very little incentive to continue with life-long learning.

## Professional Skills Record

The Professional Skills Record (PSR) was presented to 106 learners who were participating in essential skills programs and 67 agreed to become research subjects to aid in the development of the tool. All recommendations of the research subjects were incorporated into the final draft of the PSR.<sup>5</sup>

Personal evaluation of the PSR is recorded in the Trade Essentials project through the independent external evaluation report. Reported findings show that 89% of the research subjects reported that the PSR helped them “clearly identify their current trade specific skills and areas that they needed to work on”.

Although the PSR was originally designed as a tool to help apprentices move through a PLAR/PLA process, input gained from our dissemination audience, demonstrates that the tool has broader applications. These applications include:

- developing learning plans with immigrants before they come to Canada
- introducing Canadian trade terminology to tradespeople before they emigrate from their country of origin

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<sup>5</sup> Specifics of the Professional Skills Record are detailed in a separate report (Development of Professional Skills Record (PSR) and Recognition for Skills and Learning (RSL) Implementation Plan, MacAulay, G. 2010. The report can be found at [www.tradeessentials.ca](http://www.tradeessentials.ca).

- tracking skills and learning of outcomes of students in secondary and post-secondary programs
- introducing secondary and post-secondary students to the full scope of the trade when they first enter trades training
- providing a tool to apprentices so they can self-assess their skills and learning
- helping tradespeople build skill based resumes

### **Additional PSR Testing Case Studies**

Outside the parameters of group testing, the PSR was used to respond to the needs of two immigrants. In both these instances, the PSR proved to be a very effective self-assessment tool in helping the client reflect and assess the full scope of their trade skills. The client was then able to make an informed decision and create a learning plan that built upon their prior learning.

## **General Recommendations**

### **Regarding Tools and Processes**

*The work accomplished in* this project marks one further step in the development of processes and products for discovering and documenting the essential skills needs of apprentices. The research gives rise to a number of areas that could be developed and/or studied further, as well as opportunities for professional development activities that focus on the use of the tools.

We recommend that jurisdictions:<sup>6</sup>

- provide physical space and the accompanying services to address essential skill needs for those in the trades.
- create modules for professional development for those who will administer dynamic assessments.
- develop a framework and action plan to incorporate Recognition for Skills and Learning into apprenticeship.
- use the Professional Skills Record and other Trade Essentials assessments as templates to develop and deliver competency-based training for the creation of workplace assessment tools in other career designations.
- use the Professional Skills Record and other Trade Essentials assessments to facilitate the transferability of skills and learning between jurisdictions.

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<sup>6</sup> e.g., training institutions, apprenticeship bodies, trades organizations, newcomers groups, etc.

- develop tools to assist foreign trained tradespeople to learn Canadian trade terminology.

- adapt the Trade Essentials approach to situations requiring heightened cultural or social sensitivity (e.g., using language of country/cultural origin, adapting cultural symbols, approaches that recognize current living environment such as correctional/mental health centres).

## Regarding Further Research Opportunities

Based upon results of the research, the following areas have been highlighted as potential topics for further study or development:

- The ability of clients to successfully predict their own skills levels.
- How to attract clients to ongoing Essential Skills development activities, beyond immediate certification goals.
- The essential skill requirements to prepare youth for a career in the trades (at the K-12 level).
- Test anxiety as a barrier to success in the trades.
- The creation of paths within the Professional Skills Record chart to illustrate the learning requirements for each Block/Period/Level of training.

***As this project draws to a close, the Trade Essentials team hope that this project adds further depth to all the work that has been carried out across Canada in this area and that it is regarded as a positive contribution to the development of a strong future trades workforce to meet the needs of industry.***

**The following report** outlines the results for the Trade Essentials research project, as it followed 125 research subjects from their initial entry into the Trade Essentials Apprentice learning path, and their status at the end of the three year project. <sup>7</sup>The project designed tools and processes and examined their effectiveness in assisting subjects to achieve their goals of improving essential skills, and in many cases, being successful in challenging for a specific trades qualification such as the Red Seal.

## Background

**“Ideas, talent, experience,** and drive - Atlantic Canadians have the attributes to participate in a knowledge society and a global economy. In order to successfully put all these qualities together in our life and in our work, we need another vital ingredient - essential skills” (Meeting the Challenge, 2004)<sup>8</sup>. The essential skills must be integrated into educational curricula, apprenticeship and workplace/workforce learning. There is strong evidence that supports the hypothesis that inadequate essential skills are a barrier to tradespeople wanting to complete training.

According to the International Adult Literacy Skills Survey (2003)<sup>9</sup>, 43% of the adult population (age 16-65) in PEI need to increase their literacy and essential skills levels to survive and thrive in the knowledge-based economy. In many cases, inadequate essential skills, (for example, numeracy and literacy), deter many tradespeople from participating in apprenticeship training, thereby limiting their possibilities for future career advancements. This situation creates a barrier for the tradesperson and also places more pressure on employers who are already taxed with a shortage of skilled trades professionals.

Research conducted in PEI by Workplace Learning PEI (2000), indicated that 40% of

**Of 469 challengers on PEI between 1999-2003, there was a 58% pass rate ...We can deduce from the research that some of these challengers were not successful due to lack of essential skills. This is a group of highly skilled workers who clearly need support.**

<sup>7</sup> Two companion reports have been produced to accompany this document: The Trade Essentials Technical Report and a final report prepared by Gaelyne MacAulay entitled, “Development of Professional Skills Record (PSR) and Recognition for Skills and Learning (RSL) Implementation Plan”, outlining the development of a PSR model and plan.

<sup>8</sup> Live& Learn, The Newsletter of the PEI Literacy Alliance (Fall 2007) <http://www.pei.literacy.ca>

<sup>9</sup> International Adult Literacy Skills Survey (2003) <http://www.statcan.gc.ca>

unlicensed tradespeople in the Plumber and Construction Electrician trades did not possess the necessary essential skills to enable them to work to the best of their ability and become certified journey persons. Statistics from the Apprenticeship Branch of the Department of Education also indicate a low success rate for tradespeople with five or more years of experience in their trade who challenged the certification exam (also known as challengers) without formal apprenticeship training.

From 1999-2003, 469 challengers wrote certification exams in PEI. There was a 58% pass rate among these challengers, including some who may have attended one or more blocks of apprenticeship training and/or workplace education. We can deduce from the research that some of these challengers did not participate in apprenticeship training due to lack of essential skills. This is a group of highly skilled workers who clearly need support.

It is estimated that approximately 90% of businesses in Prince Edward Island are small. In fact, the majority of these businesses have five or fewer employees.<sup>10</sup> Relative to larger businesses, small businesses do not have the resources and in-house expertise to invest in skills development and human resources planning. It may also be difficult for these businesses to readily obtain the information they need to make decisions about skills development. Therefore, a system that supports tradespersons in their quest for knowledge and skills is critical in supporting the economy.

Improving the quality of PEI's workforce has positive economic impacts. A skilled workforce increases opportunities for workers in becoming more gainfully employed in higher paying jobs. This in turn, increases economic spin-offs. For Prince Edward Island, a highly trained workforce would help attract new business and increase economic development. In a global economy, the skills and knowledge of our workforce will be a key determinant of Canada's position among emerging and major advanced economies.

Most recently, reports from the Canadian Construction Sector Council recognize that the future trends in the construction industry call for development of essential skills within the trades.

The issue of essential skills has emerged consistently in labour market studies, focus groups, and other industry consultations over the last 15 years. A recent essential skills Workshop hosted

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<sup>10</sup> Small business in PEI is defined as any company that has less than \$1 million in sales and fewer than 10 employees.

by the Construction Sector Council (CSC) confirmed these skills to be critical for the construction industry.<sup>11</sup>

Predictions for the construction labour force indicate that a solid foundation of essential skills will be required if we are to meet emerging labour market development trends.

Investing for the future requires reaching beyond short term opportunities, and embracing new trends such as building to new environmental standards and adding new software capabilities that integrate design, build and operational aspects of a structure. These new systems impact the skills of most trades. Training needs are actually increasing as the recession fades.<sup>12</sup>

## Objectives and Intended Results

*In response to the skills* development needs identified, the Trade Essentials project was proposed with an overall goal to provide a framework for the incorporation of essential skills and prior learning assessment and recognition (PLAR) into the apprenticeship system in PEI. This approach would increase the opportunities for clients to engage in apprenticeship training and to become licensed in their particular trade area. Achieving this goal involved a number of core objectives

- develop and test assessment inventories for both essential skills and technical skills
- provide essential skills interventions
- develop contextualized essential skills curriculum frameworks.
- test the model and tools
- develop a Prior Learning Assessment and Recognition (PLAR) assessment tool and implementation model

The project focused on coordinating efforts to include prior learning assessment and essential skills training into apprenticeship for an integrated service delivery experience for Island tradespeople. It is hoped that this model will assist individuals who would like to complete apprenticeship but

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<sup>11</sup> essential skills Strategy for the Construction Industry, Canadian Construction Sector Council, [http://www.csc-ca.org/pdf/Strategy\\_eng.pdf](http://www.csc-ca.org/pdf/Strategy_eng.pdf)

<sup>12</sup> After the Soft Landing: The Expansion of Canada's Construction Industry, A Preview of the 2010 Construction Looking Forward Scenario-based Forecast, Canadian Construction Sector Council, [http://www.csc-ca.org/pdf/CSC\\_LMI-Forecast\\_2010\\_e.pdf](http://www.csc-ca.org/pdf/CSC_LMI-Forecast_2010_e.pdf)

have been impeded by inadequate essential skills and/or lack of training. The desired end-results of the project were to

- provide more opportunities for clients to increase their essential skills levels
- increase essential skills of participating research subjects
- increase the percentage of trade workers who enter apprenticeship and challenge the red seal certification exam
- create a user-friendly, safe, non-threatening learning environment (impact of learning environment on success)
- increase the confidence of participating research subjects
- create a learning path for tradespeople to reach certification
- increase the capacity of clients to understand and use safe work practices by including safety material in essential skills program curriculum
- develop trade skills records, essential skills inventories and essential skills trades curriculum that can be used in other jurisdictions
- develop innovative services that can be adapted into the apprenticeship system

It is important to note that the Trade Essentials program did not deliver technical training. Tools developed (such as the Technical Skills Inventory and the Professional Skills Record) would identify technical skills gaps only. To identify essential skills needs and not technical skills gaps was considered to be an incomplete assessment because

- while essential skills could be addressed, a client also needed to understand their technical skills needs to be successful in certification attempts
- knowledge of technical skills gaps can be incorporated into essential skills curricula and thus maximize the value for clients (e.g., using specific sections of the code book for document use activities)

Technical skills assessments also served the purpose of assisting a client in creating an overall learning path that included technical training and skills development options.

## Project Milestones

*The rollout of the Project* included the following milestones:



**With your years of experience, you could**

**write your own ticket**

The new **Trade Essentials** program is specially designed to help experienced trades people work toward their trade certification.

**HOW IT WORKS**  
Experienced trades people often have pretty much all the skills and experience they need for a Red Seal, but have never tested it. If that sounds like you, **Trade Essentials may be just the ticket you need.**

**Trade Essentials** is a program that can help you identify any skills that might still need some work, and then help you to improve those skills so you'll be ready to go on to do more ahead in your career.

**WORK YOUR WAY**  
Trade Essentials is about learning, and it's not learning like you may remember it. Each person in the Trade Essentials program works on their own individual program - it's designed for that person. That means you work only on the topics you need to work on to help you improve your capability and qualifications in your chosen trade.

We'll help you check your progress and decide when you're ready for the next step.

**WHY YOU WILL WANT YOUR RED SEAL**  
If you have your Red Seal, you have recognized qualifications as a fully skilled worker in your field. Your Red Seal can help you:

- Earn more money
- Do more challenging work
- Be more employable
- Move to your trade anywhere in Canada
- Help train other apprentices

**SPACES ARE LIMITED. Contact us today to see if Trade Essentials is right for you ... you could write your own ticket to a better future.**

**Trade Essentials**  
More skills ... more opportunities  
[www.TradeEssentials.ca](http://www.TradeEssentials.ca)

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Department of  
Economic Development  
and Innovation

## Year 1

The first year of the project resulted in the development of assessment tools, for both essential and technical skills, as well as, essential skills curricula for piloting within the Carpentry and Cook trades. This first phase allowed for testing, evaluating and realignment of the process and the tools, for use in other trades. A Prior Learning Assessment tool (Professional Skills Record) prototype designed for assessment in the workplace was developed and tested in the Carpentry trade.

## Year 2

A communication and marketing plan was developed in Year 1 and launched in Year 2. Research subjects were recruited for additional programs. A tracking database was designed and utilized to store data gathered from the research.

## Year 3

Additional skills inventories and trade-specific curricula, as outlined in this report, were developed for the remainder of the trades groupings. Thirteen Professional Skills Records were completed and then validated by teams of Red Seal certified tradespeople. This activity continued into Year 3, at which time the project material was ready in both official languages, for publication and distribution across Canada. Two additional training sites were established to serve the needs of tradespeople across the Province.

# Methodology

*The following section outlines* the project methodology including:

- Concept Development
- Applied Research Model
- Project Features-Learning Path
- Key Processes

## The Trade Essentials Concept

*To better inform the* project concept and implementation process, the project team considered recent research related to trades skills development and related activity in other jurisdictions. A number of key findings provided the foundation upon which the concept was designed, including adult learning considerations and dynamic assessment models.

## **Environmental Scan**

To avoid duplication and “re-invention of the wheel” the first step was to contact those who have already created similar tools or used a Recognition of Prior Learning (RPL) approach within their respective apprenticeship system. The project team contacted industry organizations, governments, sector councils, colleges and other related associations. Responses were received and materials from each were reviewed for relevance to the Trade Essentials project. Findings indicated that at the time, the approach to client service proposed by Trade Essentials did not exist in other parts of the country.

The scan also confirmed strong evidence that inadequate essential skills are a barrier to tradespeople wanting to complete training.<sup>13</sup>

## **Dynamic Assessment Model**

The project team found that the benefits of a *dynamic assessment* approach would best meet the needs of the clients. One of the underlying assumptions of the dynamic model is that all learners are capable of learning and change. This approach recognizes what the apprentice can already do while still identifying the skills in need of “rust removal”.

## **Adult Learning and Adult Education Principles**

Characteristics of adult learners and adult education were a key consideration of the Trade Essentials team. These points were adapted into all processes and tools and include recognition that all learning styles need to be respected and used to effectively meet a range of learning needs. See Appendices “C” and “D” for a list of these principles.

## **National Essential Skills**

The essential skills requirements for each trade outlined in the Trade Essentials tools are based primarily on HRSDC’s Essential Skills<sup>14</sup> profiles and the National Occupational Analyses.<sup>15</sup> Human Resource Development Canada states that “essential skills are the skills needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.”<sup>16</sup>

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<sup>13</sup> *The Link Between Essential Skills and Success in Apprenticeship Training*. Canadian Apprenticeship Forum – Forum canadien sur l’apprentissage (CAF-FCA). <http://www.caf-fca.org/english/eskills/4.asp>

<sup>14</sup> Essentials Skills in this context refers to the work the National Essential Skills Working Group and is thus capitalized. Throughout this document the phrase has written as lower case for formatting purposes.

<sup>15</sup> Human Resources and Skills Development Canada , Essential Skills, [http://www.hrsdc.gc.ca/eng/workplaceskills/essential\\_skills/general/home.shtml](http://www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml)

<sup>16</sup> Human Resources and Skills Development Canada, Essential Skills, [http://www.hrsdc.gc.ca/eng/workplaceskills/essential\\_skills/general/understanding\\_es.shtml](http://www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/understanding_es.shtml)

## **Project Advisory Committee**

Stakeholder partners, certified tradespeople and employers comprised a project advisory committee and assisted the Trade Essentials team by

- gathering and reporting training needs to Trade Essentials staff based on information from their industry, union, labour market or from their organization
- identifying barriers to participation and suggesting ways to remove these barriers
- providing feedback from a tradesperson's perspective on any aspect of the project
- identifying key people/groups in their communities, organizations or sectors who could benefit from the services provided by Trade Essentials
- supporting the project by sharing information with these individuals/groups and becoming a "champion" for the project

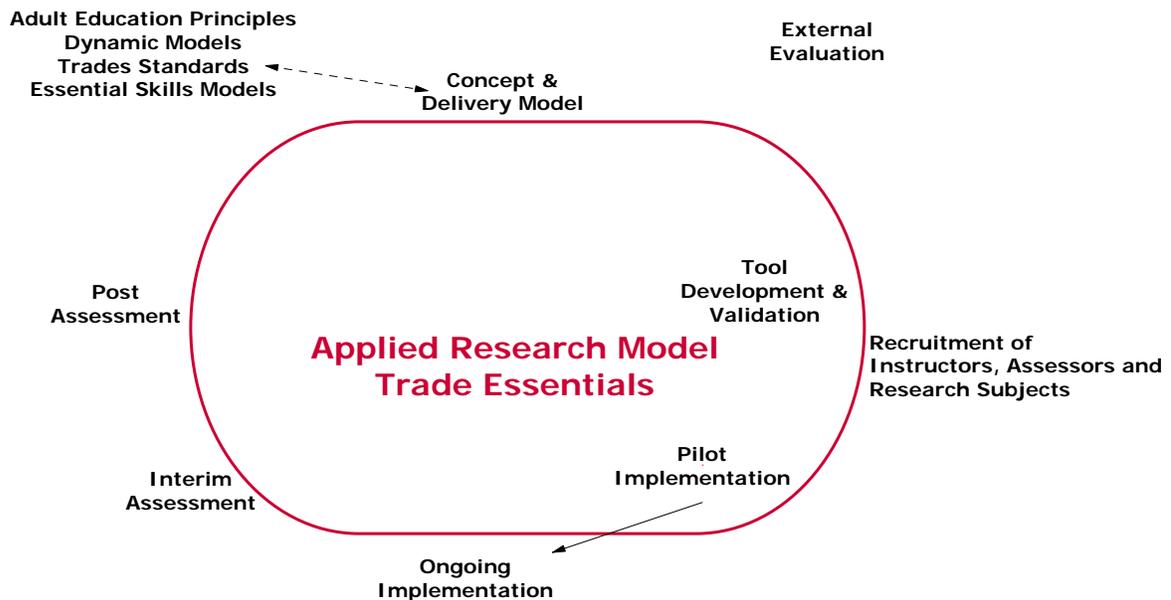
## **National Trades Standards**

The one tool that is used in every Canadian jurisdiction to develop curriculum, Interprovincial Exams (IP) and log books is the National Occupational Analysis (NOA). The NOA is recognized by the Canadian Council of Directors of Apprenticeship (CCDA) as the national standard for a specific trade. If a journeyperson signs-off on the knowledge, skills and abilities in a Professional Skills Record (PSR), it becomes a record of achievement verifying that the knowledge, skills and abilities of their apprentice meet industry standard. The NOA standard provided the basis for any technical standards utilized in all tool development.

## **Applied Research Model**

***As a research project***, Trade Essentials falls under the umbrella of [applied research](#) and adapted its model to this approach. Applied research, for the purposes of Trade Essentials, focused on producing results directly relevant to target clients, and by creating new, or improving existing materials, products and/or processes required to facilitate this effort.

**Table 1: Applied Research Model**



### Selection of the Thirteen Trades

Upon a review of statistics, files, and with advice provided by the PEI Apprenticeship Section, the project developed contextualized essential skills-building materials for the following 13 trades: Automotive Service Technician, Cabinetmaker, Carpenter, Construction Electrician, Cook, Industrial Electrician, Machinist, Metal Fabricator, Oil Burner Mechanic, Plumber, Refrigeration and Air Conditioning Mechanic, Steamfitter/Pipefitter and Welder. There was also a commitment to pilot the materials to a minimum of six trades.

### The Essential Skills Examined

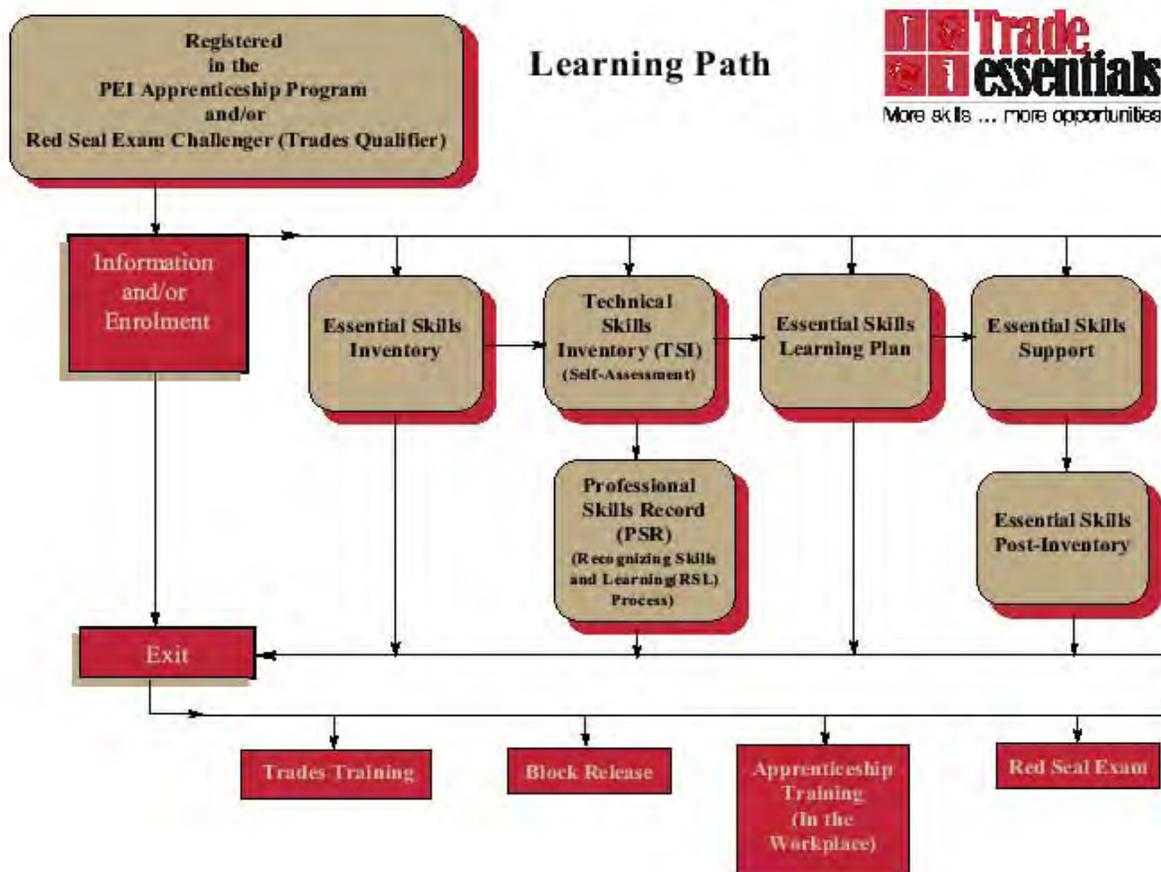
While there are nine essential skills<sup>17</sup>, the scope of the project called for focus on 6 specific skills. This parameter was set to ensure the materials could be developed within the project time frame. The skills selected were Reading Text, Document Use, Numeracy, Writing, Oral Communication and Computer Use.

<sup>17</sup> Reading Text , Document Use, Numeracy, Writing, Oral Communication, Computer Use, Working with Others, Thinking Skills, Continuous Learning

## Project Features – Learning Path

*The following chart illustrates* the learning path developed by Trade Essentials for research subjects.

**Table 2: Learning Path**



This path, providing clients with an opportunity to discover what they really need to focus on, is one of the key features of the Trade Essentials model. A typical path for a client included

- Information and/or Enrolment
- Essential Skills Inventory
- Technical Skills Inventory
- Individual Learning Plan
- Essential Skills Intervention

- Essential Skills Post-assessment
- Professional Skills Record (optional)
- Appropriate Exit Point

Upon recruitment, subjects were invited to attend an information and enrolment session. When enrolled, subjects completed an essential skills inventory and a technical skills inventory; subsequent learning path development was dependent upon these results.

Appropriate interventions as identified by the assessment process included one-on-one tutoring, classroom instruction, self-study, or any combination of the above. Ongoing support was provided by assessors, instructors, tutors and Trade Essentials staff. Clients were also made aware of their options for addressing technical skills gaps, including in-school training, on-the-job experience or self-study.

Additionally, research subjects were given the opportunity to utilize a Professional Skills Record (PSR). This tool assisted them to develop a more thorough understanding of the relationship between their existing skills and the full scope of their trade as defined by the NOA.

## Operations

**A number of key** operational activities had to take place to synchronize with implementation of the research study. Among these was the establishment of a suitable learning environment for tradespeople. The project team selected the Royalty Centre in Charlottetown as the central lab in which to begin piloting the program. As the program expanded to more trades and more clients, two more labs were located in Souris (Kings County) and Slemon Park (Prince County). Each lab was equipped with materials and technology geared to tradespersons' learning needs, including

**Since establishing initial central operations, Trade Essentials sites have expanded to two more locations across PEI. Together, these sites have served over 180 clients and offered 14 classroom-based group interventions and numerous one-on-one learning opportunities.**

- trades specific reference materials (individual learning modules, trade texts, DVDs)
- general learning materials (reading, writing, math, etc.)
- computers
- desks/chairs/office supplies
- internet access

- assistive learning software (e.g., software to assist people who need help in reading, paraphrasing information, etc.)

### **Client Service Delivery**

To meet the objective of providing flexible delivery for the research subject group, assessments and interventions were provided during times that were convenient for the research subject or the majority of those in a class. Most sessions were run in the evening or weekends. Assessments were conducted both on and off site.

Beginning in the Fall of 2009, each centre was staffed on a part-time basis to offer assessment and essential skills support to clients where trade-specific programs were not available.

### **Trade Essentials Learning Lab - Charlottetown**



## Removal of Barriers

*Part of the mandate* of the project was to identify and remove barriers that might prevent a potential client from taking part in the program. To this end, in combination with the tools developed for assessment, the following potential barriers were addressed

- **Travel** – Research subjects were eligible for travel reimbursement.
- **Meals** – Where sessions were conducted over meal times, a small meal allowance was offered.
- **Reimbursement for Time** - Where time was spent in-class training, an hourly rate was paid for research subjects up to the end of August 2009. This was to cover the time of research subjects spent during the first phases of intervention. After this date, hours spent in-classroom or with assigned tutors were not reimbursed.
- **Equipment** – The project provided all supplies, the use of reference materials and study space.
- **Adaptive Software** – Computer software was made available for those identified as requiring assistance in synthesizing or reading materials.

*The Trade Essentials approach* provides assessments, interventions and coordination of services for clients and has proven to be an innovative program with a number of factors contributing to its success. There are many individuals who begin apprenticeship training but do not complete for one reason or another. There are also many who may never have undertaken much formal training but have developed expertise over years of hands-on experience. The project has resulted in the development of a comprehensive process to guide individuals through the apprenticeship system, regardless of their entry point. The program:

- was specifically designed for adult learners
- focused on individual learning and building on existing skills
- offered guided self-assessment to identify learner needs
- scheduled to fit around work schedules
- was offered group sessions as well as one-on-one tutoring
- used trade-related learning materials
- offered assessment of learning and skills in the workplace
- was offered free of charge
- did not interrupt earnings

## The Tools

*Throughout the project*, tools were developed and tested with research subjects. These included”

- Essential Skills Inventory (ESI)
- Essential Skills Curricula Framework (CF)
- Technical Skills Inventory (TSI)
- Professional Skills Record (PSR)

The objective was to create instruments that would identify skills gaps and facilitate each apprentice's learning path. In fact, the development of these contextualized materials represents the innovative aspects of the project and it was these components that made the project most valuable to the clients. Because the materials are based on the essential skills profile and/or the National Occupational Analysis and are trade-specific, the apprentices could see the relevance of these instruments to their needs.

A Competency-based Framework (CBM) was used as the foundational development model for all Trade Essentials (TE) tools which created a consistent link in the development of all TE products. The following diagram depicts the flexibility and continuity of using CBM as a framework for both essential skills and technical skills documents in the Trade Essentials project.

### **Essential Skills Inventories (ESI)**

The ESI is a dynamic assessment process using contextualized essential skills assessments. Clients can identify individual proficiency levels of the following essential skills: reading text, document use, numeracy, oral communication, writing and using computers. ESI's

- use an interactive, dynamic approach
- are not timed
- are designed to engage, motivate and build trust
- include education and work history
- are self-guided assessments
- provide immediate feedback, without actual test scores; and
- provide the first step in creating essential skills learning plans

Inventory packages included in the *Essential Skills Resource Manual* have been developed for each of the 13 trades identified in the Trade Essentials project. Please refer to the appended CD for the ESI's and user guides. Each ESI package includes:

- Essential Skills Inventory Assessor's Guide
- Essential Skills Inventory
- Essential Skills Answer Key
- Essential Skills Assessment Instructor Guide

Each trade-specific essential skills inventory (ESI) required approximately 1½ - 2 hours to complete. The time taken to develop rapport with the apprentices is rewarded through the collection of a wealth of information about what the apprentice knows in relation to essential skills, and how the apprentice learns. It is a process that is respectful, engaging, motivating and confidence-building for the apprentices.

**It is a process that is respectful, engaging, motivating and confidence-building for the apprentices.**

### **Technical Skills Inventories (TSI)**

The Technical Skills Inventory measures a client's technical skills against those required for the full scope of his/her trade. While the essential skills inventories indicate the essential skills needs of the client, the Technical Skills Inventory indicates the technical skills gaps of each client. Trade Essentials was not mandated to directly address technical skills gaps but provided guidance to a learning path to meet these needs. This can be through self-study, technical training or exposure to a broader range of skills at the work site. Through a self-assessment process, clients are able to identify their individual trade-specific skills.

TSI and instructional packages included in the *Essential Skills Resource Manual* have been developed for each of the 13 trades identified in the Trade Essentials project. Each TSI package includes

- an Introduction and Diagram
- an Assessor's User Guide
- Learner's Guide
- TSI
- TSI Group Summary Spreadsheet
- Group Learning Plan
- Individual Learning Plan

Taking an average of 20 minutes to complete, the TSI helps

- the instructor choose trade-related learning materials to integrate into an essential skills program
- each participant identifies any technical skills gaps they need to fill before challenging the Interprovincial exam

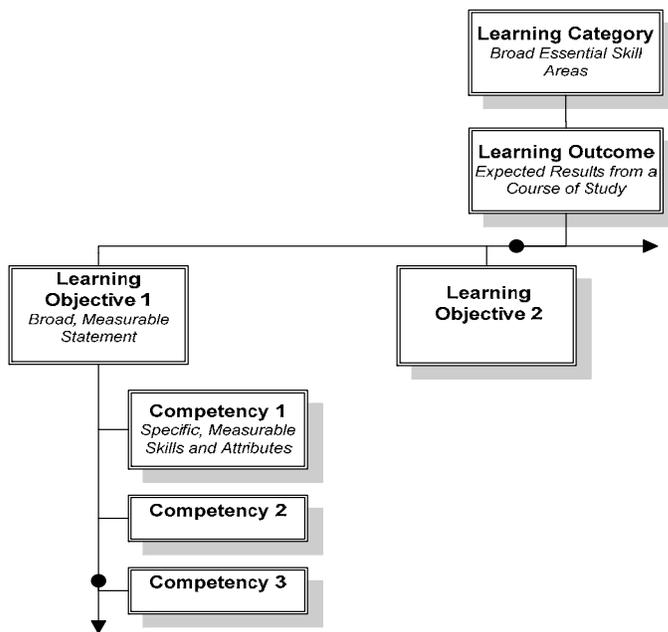
Each feedback session runs 30 to 60 minutes in duration. Assessors, clients and instructors concluded that the TSI is an effective tool and fulfils the need for which it was developed. Please refer to the appended CD for the TSI's user guides.

## **Trade Specific Essential Skills Curriculum**

Trade-specific curriculum frameworks (CF) included in the *Essential Skills Resource Manual* were created for each of the thirteen trades. Materials were tested with research subjects through a classroom intervention in six of the thirteen trades.

The CF is an outcome-based curriculum delivery model focused on a learner-centred approach. The material concentrates on the *outcome* of the intervention - what the learner will be able to do or will know at the end of the intervention. Learning objectives are defined as broad, measurable curriculum statements that identify what learners will know or will be able to do as the result of a learning activity.

## Curriculum Overview



One of Six Essential Skills areas as defined in the curriculum frameworks: Numeracy, Reading Text, Document Use, Computer Use, Writing, and Oral Communication

Describes what a learner should know or be able to do as the result of a course of study. One Learning Outcome describes one Learning Category

Learning Objectives identify what a learner will know or will be able to do as a result of a learning activity. There will be several Learning Objectives for each Learning Outcome.

Competencies are specific activities that are used to measure whether or not learners have mastered the objectives described in a course of study. They outline what a learner must master in order to achieve the Objective. There are several Competencies associated with each Learning Objective.

Refer to the appended CD for the Curriculum Frameworks and user guides. Each CF package includes

- Curriculum Frameworks and Guidelines
- a Lesson Plan Template
- an Instructor Guide

### **Professional Skills Record (PSR)**

The PSR is a comprehensive technical skills assessment tool designed for use in the workplace by an apprentice and a journeyman. The PSR uses the content in the National Occupational Analysis (NOA) and arranges it so apprentices can, through self-assessment, measure their progress in their trade against industry standards outlined in the NOA.

The PSR can be used to

- assist an apprentice in the Apprenticeship Block/Period/Level process
- provide a new Canadian with a validated document of trades skills they possess
- provide the apprentice and their journeyman with a comprehensive guide to the full scope of their trade
- introduce the apprentice to the national process of Red Seal certification in a trade

- give the apprentice and the journey person a detailed technical skills document that can be used as a learning guide to ensure the apprentice learns all skills required within the trade
- provide a professional record of technical skills outcomes that are assessed against recognized national standards
- ensure industry that even though the method and process of learning trade skills vary, the technical skills learning outcomes meet industry standard

The professional skills record can be used by the apprentice from the time they sign up for apprenticeship through to Red Seal certification.

**While an overview of its development, findings and recommendations are included as part of this document, this discussion represents a synopsis of the Professional Skills Record activity. There is a detailed report implementation strategy entitled “Development of Professional Skills Record (PSR) and Recognition for Skills and Learning (RSL) Implementation Plan” appended as section 3 of this document. There is also a Professional Skills Record Manual for each of the thirteen trades along with trades-specific curriculum guidelines and suggested resource materials.**

## Validation

**All tools underwent a** validation process. Validation teams were made up of individuals with the required expertise to examine and provide appropriate feedback on materials. Teams included qualified educators and/or tradespersons depending on the information being reviewed. Tradespeople were required to hold a certificate of qualification in a designated trade.

Depending on the tool being reviewed, validation teams focussed on terminology, approach, framework and correctness of the materials. Changes were made based upon feedback received and a final version was approved by consensus.

## Implementation

**The following section provides** a more in-depth look at the major processes implemented throughout project delivery. All of these processes must be considered prior to delivering a program of this nature. These include

- recruitment and selection of instructors/assessors
- recruitment of research subjects
- orientation
- client intake
- inventory/assessment
- in-classroom training
- one-on-one tutoring
- evaluation
  - instructor (informal)
  - mid-session (informal)
  - post-assessment (formal)
  - formal evaluation (third party external)

## **Recruitment and Selection of Instructors/ Assessors**

*To deliver program services* it was necessary to engage assessors, tutors and instructors. This was achieved by developing a roster of assessors and instructors who were contracted based on availability, and the trade concentration required. Ads were run to attract qualified individuals. Successful applicants possessed a combination of the following qualifications

- familiarity with the PEI apprenticeship system
- Red Seal certification in a trade
- certificate or diploma in Adult Education
- Bachelor Of Education
- demonstrated ability to apply principles of Adult Education
- demonstrated ability to work as part of a team and use creative approaches to teaching
- demonstrated ability to facilitate learning in a multi-level setting
- exceptional communications skills

For assessors, the selection process placed an emphasis on training and experience in adult education and familiarity with essential skills.

Individuals employed through this process conducted assessments, offered tutoring and in-class instruction to clients and reported the results to the project management team. Additionally, the results of essential and technical skills assessments were passed on to the instructors to facilitate lesson planning.

## Orientation and Training of Instructors/Assessors

### ***Instructor Orientation***

Instructors underwent a one-day orientation, to review the objectives of the program, the available tools and materials to assist them with their work. Refer to Appendix "E1" for an overview of the orientation.

### ***Assessor Orientation***

A one-day training session was conducted to familiarize the assessors with the project and its underlying philosophy, as well as with the assessment tools and processes and the subsequent reporting procedures. These individuals then completed both Essential Skills Inventories (ESI) and Technical Skills Inventories (TSI) with Trade Essential clients. See Appendix "E2" for an overview of the orientation.

## **Recruitment of Research Subjects**

***In order to participate*** in Trade Essentials, clients had to meet one of two conditions:

- **be eligible to challenge** (at least 5 years' experience and able to provide proof of skills)
- **be eligible to register as an apprentice** (between 1 and 5 years in the trade and working under a journey person)

The first clients chosen for programs were accessed from the Apprenticeship Section database and included those who had previously written their Red Seal and were not successful. This "target group" was a first priority for Trade Essentials programs. They are referred to as "Challengers" or "Trades Qualifiers" and had already been approved to write the Interprovincial (Red Seal) exam. Other "first time challengers" were referred by Apprenticeship upon completion of their application and approval to write the exam.

Those already registered as an apprentice were also eligible to participate in Trade Essentials. Some research subjects were direct referrals from Apprenticeship prior to entering block training. Apprenticeship also referred some clients who had previously been unsuccessful in completing their block.

Other clients were recruited through newspaper and radio advertising, and trade union referrals. Many heard about the program through word of mouth. Within these categories, clients who were working in the trade but not part of the apprenticeship system were required to register as an apprentice in order to participate in Trade Essentials programs.

## Assessment Processes

*As discussed in the* section on “Tools”, the primary assessment tools utilized during preparation for, and ongoing delivery of, interventions were the Essential Skills Inventory (ESI) and the Technical Skills Inventory (TSI).

These assessments are called “inventories” rather than tests and they

- are designed to be informal
- are asset based – they build on what the apprentice already knows
- are not tests with attached scores
- are conducted using an interview format
- focus on an apprentice’s strengths
- are trade specific
- are individual
- facilitate immediate, individual and confidential feedback

### The ESI

Clients met one-on-one with an assessor to go through the essential skills inventory. Assessors attempt to create an atmosphere conducive to learning in which the apprentice feels comfortable enough to explore his/her essential skill strengths as well as areas to be updated. The session is conducted in a manner that engages the apprentice and helps build confidence. In this sense, the inventory is as much a process as a product. The time required to complete a typical ESI ranged from 1½ to 2 hours. After a determination of learning styles, six of the nine essential skills were assessed in the following order: reading text (technical language), document use, numeracy, oral communication, computer use and writing. The Inventory was divided into sections and the questions are ordered from simple to complex.

By the end of the essential skills inventory, the apprentice was given a completed Skills Summary form which profiled the apprentice’s strengths and learning gaps. Through the skills summary, each apprentice received immediate, individual and confidential feedback.

**...of the first 106 participants, only two felt they had any prior knowledge of the NOA.**

Information from the Summary was shared with the instructor or a tutor if an essential skills intervention (program) was planned. Both the apprentice and the instructor were cognizant of the essential skills needs of each apprentice. The information from the Skills Summary can be illustrated graphically for individuals or groups, dependent on specific needs. Instructors also found it helpful to have an accompanying narrative.

## The TSI

The Technical Skills Inventory (TSI) was designed to be administered to a group of participants, and for the research project, was introduced on the first night of each TE program. This tool assessed technical skills gaps. The NOA was also introduced before the TSI because, interestingly, it was discovered that of the first 106 participants, only two felt they had any prior knowledge of the NOA.

Within 24 to 48 hours the instructor was provided with a Group Summary spreadsheet and a Learning Plan pie chart. The spreadsheet provided individual learning needs identified by each participant, and the Learning Plan pie chart provided a visual picture of the learning needs of the group.

At the half-way point of each TE program, each participant had a one-on-one discussion with the TSI assessor/administrator, during which the participant was provided with their own individual Learning Needs pie chart. If they had any technical skills gaps, options were discussed and the participant indicated how they could best fill those gaps. The participant received the original copy of their TSI and their original Individual Learning plan for their records.

## The PSR

The Professional Skills Record (PSR) was presented to 106 learners in essential skills programs. Sixty-seven agreed to participate in the research and complete the PSR. The process followed was

- an information session on the PSR, its application and the learner's role in its testing and development, was delivered to participants in their respective essential skills program groups
- participants had one week to consider whether they had the time and commitment to give to the development of the PSR
- following that week of contemplation, those who chose to participate in the testing and development of the PSR, met one-on-one with the RPL coordinator



- research subjects had one month to work through the PSR during which time the RPL coordinator was available to answer any questions.
- research subjects then met one-on-one with the RPL coordinator to give feedback and recommend changes to the PSR
- research subjects then completed an assessment on the PSR

## Interventions

***An intervention refers to*** a trade-specific essential skills program delivered to either a group or an individual. Trade Essentials interventions were designed to be flexible and respond to each individual’s needs and were developed for individualized learning;

Most Effective Learning Style/s		
Learning Style	Number	Percent
auditory learner	67	53.6
visual learner	104	83.2
kinesthetic learner	122	97.6

therefore, no set time period was determined for the delivery of the material. Learners’ prior knowledge and time necessary to learn or relearn skills determined the length of time spent in the intervention. For that purpose, a continuous exit policy was implemented within all programs. This left the process open to “early leavers” (those identified as having few or isolated essential skills gaps), as well as those who had a broader range of needs.

### In-Classroom Training

The utilization of essential skills and technical skills assessment tools, and the subsequent delivery of contextualized curriculum in the classroom were necessary components of the piloting process, as outlined in the original proposal. Instructors were provided with a complete copy of the essential skills curriculum frameworks associated with the trades/ courses for which they were responsible. They used essential skills assessment information to build a learning session for one client or a group of clients.

Classes were composed of research subjects who were part of the same trade and, where possible, limited to between 6 and 10 clients. Sessions were generally held in the evenings running 3 hours in length, although some clients would show up early or stay late for extra instruction. If required, additional tutoring was offered to individuals who needed to focus on a particular skill (e.g., math).

Instructors were required to prepare lesson plans as tools to organize and plan the delivery of training. It is important to note that, even though written objectives and competencies progressed from least to most difficult, it was

not necessary for the instructor to proceed in a linear fashion. The delivery approach was generally cross curricular, although on a number of occasions single topics were the focus of sessions (e.g., math, computers) depending on the needs of the client or client group.

A typical classroom intervention would run 3 hours, two evenings per week. Additional time was made available for individual discussions on specific topics or for additional work. The sessions began with an introduction to the project and an explanation of the approach. Clients were also advised that they would be asked to test tools as these became available.

# Developing and Delivering the PSR

## Development Considerations

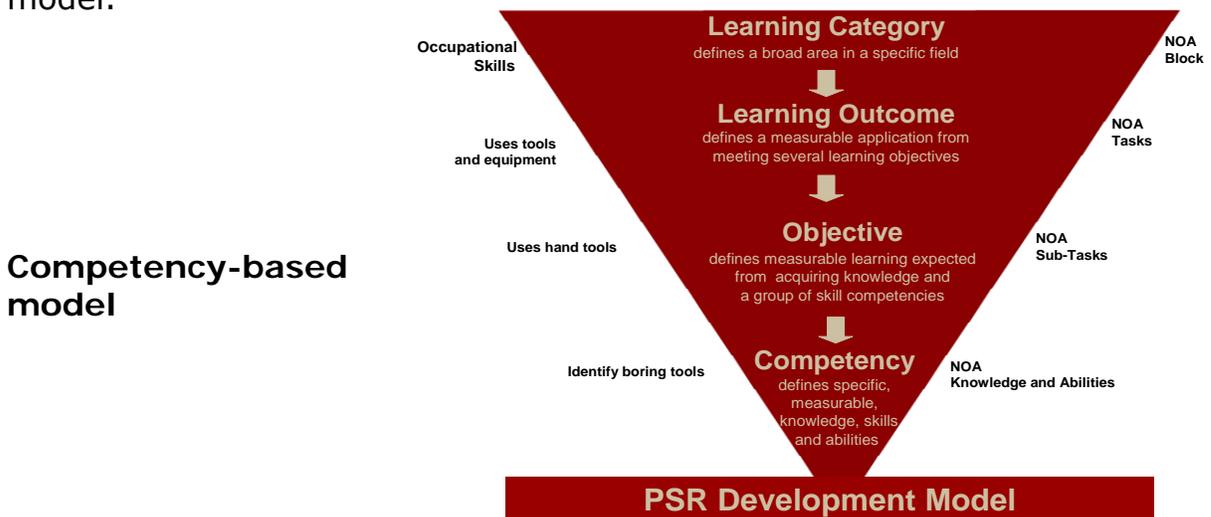
In traditional PLAR/RPL processes, rigor is considered the key determining factor in how much recognition or credit a person is awarded. Many times, processes are questioned as to their validity.



The key readiness factor in building the PSR to facilitate its incorporation into a PLAR/RPL process was to **build rigor into the tool**. This approach could facilitate the transferability of an apprentice's learning from one jurisdiction to another. The premise was, if a Red Seal endorsement is a tool of mobility between jurisdictions, then a tool that validates learning that *underpins* the Red Seal, could also be a tool of mobility and transferability.

The guideline for using a competency based framework in the development of this assessment tool for trades was to ensure that the PSR **maintained the integrity of the NOA**, while also adapting it to new purposes. The original application of the NOA was to develop trades curriculum and questions for the Red Seal exams. Trade Essentials discovered its utility as an already credible tool with application to the realm of assessment.

The next developmental consideration was to incorporate NOA components into a Competency Based (CB) framework. This was in order to be in compliance with the intention of the Canadian Council of Directors of Apprenticeship to move forward in adopting CB into NOAs. The following diagram depicts how each component of the NOA was adapted to the CB model.



***The Professional Skills Record (PSR) prototype*** was piloted with participants who attended essential skills programs from the Fall of 2007 through to the Spring of 2009.

Learners in the programs were refreshing their essential skills concurrent with working through their PSR. That proved to be a great benefit. Their long-term experience in the workplace, plus experience working with several employers, were rich resources in the development of the PSR.

Learners were introduced to the PSR at the halfway point along their Trade Essentials program path because

- it gave learners time to adjust to a learning environment
- it gave learners time to see progress in refreshing their essential skills
- it gave learners time to reflect on whether they had exposure to the whole scope of their trade during their work history

## **Evaluation**

***Throughout the service delivery*** process, a number of evaluation methods were applied. These ranged from informal methods used by instructors/assessors to gauge success, to a formal post-assessment process and third party program evaluation system. The following section provides a brief overview of these processes for measuring progress.

### **Instructor (Informal)**

It is important to note that measurement was not based on a “Pass-Fail;” it was understood that the learner saw the value in improving their skill levels and would continue to develop their skills until they were comfortable and confident in performing the required tasks. Therefore, there were a number of informal methods that could be used periodically by the instructor to ensure progress. Instructors were advised to

- provide opportunities and simple recording forms for the learner to self assess their progress.
- review individual assessments on a regular basis against the curricula frameworks
- pay particular attention to those identified as potential “early leavers” to ensure they were moving forward as anticipated

- pay attention to those who experience unanticipated difficulties in the group environment
- document observations of performance in class

Where a more formal evaluation approach was desired, the instructors or learners could design and complete a structured checklist.

### **Mid-term (Informal)**

The project provided a mid-term evaluation implemented by Trade Essentials staff. The core purpose of the process was to determine if the session was on track in the eyes of the clients, and whether there were any issues with the approach of the instructor. A short survey was used. See Appendix "F" for the mid-term review survey.

### **Post-Assessment (Formal)**

A formal post-assessment evaluation was administered at the end of each cohort, or upon the departure of any early leavers from the session. The purpose was to measure improvement in essential skills from the time of the initial essential skills inventory. Results were entered into the research database. Guidance for the post-assessment process is contained in the Trade Essentials Manuals.

### **Formal Evaluation (Third Party External)**

An external third party was contracted to evaluate the results of the program at completion of the contract period. This process involved the development and approval of a methodology, an initial report on progress (2008), a second formative evaluation (2009) and the final evaluation report due to be completed in draft by May 31<sup>st</sup>, 2010.

## **Implementation- Program Delivery**

### **Piloting the Program**

In the Fall and Winter of 2007, the Trade Essentials program was piloted to a group of Carpenters (evenings, twice a week), and Cooks (full days for two weeks). The outcomes of the pilot were very successful. Of the 26 research subjects, there was a:

- 100% retention rate
- 90% success rate on the Interprovincial (IP) exam (Carpenters)
- 89% success rate on Block exams (Cooks)

Information gathered and lessons learned from this pilot were incorporated into the Trade Essentials project and the program moved into full implementation for the remaining 99 research subjects.

## Delivery of the Program

Throughout the life of the project, Trade Essentials provided 14 formal classroom sessions for six trades (Welder, Carpenter, Cook, Plumber, Steamfitter/Pipefitter and Automotive Service Technician). Tutors were supplied to an additional 14 individuals.

### Classroom Sessions

START DATE	TRADE	LOCATION	TIME
December 2007	Carpenter	Charlottetown	Royalty Centre Evenings
Spring 2008	Carpenter	Charlottetown	Royalty Centre Evenings
February 2008	Cook	Charlottetown	Royalty Centre Daytime
October 2008	Carpenter	Charlottetown	Royalty Centre Evenings
October 2008	Carpenter	Summerside	Holland College Site Evenings
November 2008	AST	Summerside	Centre Bell Alliance Evenings
November 2008	Plumber	Charlottetown	Royalty Centre Evenings
November 2008	Welder	Georgetown	Holland College Site Evenings
November 2008	Welder	Coleman	Trout River Industries
February 2009	Steamfitter/Pipefitter	Charlottetown	Royalty Centre Evenings
March 2009	Carpenter	Charlottetown	Bluefield High School Saturdays
March 2009	Carpenter	Charlottetown	Royalty Centre Evenings
October 2009	Carpenter	Charlottetown	Royalty Centre Evenings
October 2009 – February 2010	Steamfitter/Pipefitter	Charlottetown	Royalty Centre Evenings
January 2010	Cross-Trades (computer skills)	Charlottetown	Royalty Centre Evenings
Fall 2009 Spring 2010	Drop-in Centre	Slemon Park	Days and Evenings during the week as needed
Fall 2009 Spring 2010	Drop-in Centre	Souris	Days and Evenings during the week as needed

## Why did Participants Enrol?

**Based upon a market** study conducted in 2008 for Trade Essentials by Results Marketing Inc., the **opportunity to challenge for the Red Seal** was one of the main drivers of individuals to consider entering Trade Essentials. This led the marketing team to develop a strategy centering on the importance of essential skills to advancing in the trades as the following press copy illustrates:

### The Benefits of Completing Trade Essentials:

When you successfully complete the **Trade Essentials** program you can be assured that your essential skills are at a high standard for your trade. Immediately, you'll be able to perform at a higher level ... *and that will translate into some very tangible benefits:*

- *more career opportunities and room for advancement on the job*
- *potential for higher pay rates*
- *increased self-confidence and self-esteem*
- *a greater understanding of the training and skills that specific jobs require*

As well, you will be better prepared to challenge the Red Seal exam when you are ready. A Red Seal brings its own benefits as it certifies you as a fully skilled worker in your field. It can help you:

- *earn more money*
- *do more challenging work*
- *be more employable*
- *work in your trade anywhere in Canada*
- *train apprentices*

While the core goal of the project was to close essential skills gaps, the goal of many of the research subjects tended towards improving skills to ready them to challenge for their Red Seal, Block Exam, or another type of certification within their trade. Overall 180 registered clients (including the 125 research subjects) were assessed, took part in scheduled sessions, attended drop in centres, or sought individual advice as of March 2010. For a trades workforce of approximately 5600 across all of the trades, this represents a significant portion of the labour pool.<sup>18</sup>



<sup>18</sup> <http://www.csc-ca.org/pdf/ConstructionLF-Atlantic.pdf>

## Role of Employers

The role of employers was not fully explored through the implementation phase of the project for a number of reasons

- clients may not have wanted their employer to know that essential skills were a barrier
- the immediate focus of activity was on recruiting clients who fit the research parameters
- a number of the clients were self-employed or were employers themselves

Sessions were held towards the end of the project informing employers of the value of essential skills in their workplaces and the important role of mentoring in developing valuable employees.<sup>19</sup>

While employer involvement in the implementation was limited, it did occur. In one case, an employer allowed assessments to be carried out using its on-site learning centre. In another notable instance an employer embraced the concept, highlighting the value of employer participation in delivering this service.

The organization was a local manufacturing group based in rural PEI. Trade Essentials was asked to assess its group of Welders in preparation for further training. The goal was to have this group ready to enter into their first block of apprenticeship training. Trade Essentials triggered a series of interesting developments articulated by the employer:

**... Trade Essentials has been so helpful to Trout River Industries. Then we sort of joined forces with Workplace Learning PEI. You know whenever the need for GED training was determined, it was Trade Essentials that I called to find out "How do I get this set up?", "Where do I go?" ...Since we've done Trade Essentials and some of the guys who didn't take part in that program because they weren't welders, they saw the rest of the guys taking these classes and they became interested as well and it created this huge thirst for knowledge and learning.**

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<sup>19</sup> Mentoring workshop held February 18<sup>th</sup> and Essential Skills in the Trades Workshop held March 24<sup>th</sup> in partnership with the Construction Association of Prince Edward Island

Since the guys got to see those seven or eight welders upstairs who were doing this training, everybody else seemed to want a piece of it, and I don't know. If you notice the guys on the board here [points to pictures on cork board behind her], this is everybody who works here, and I don't know if there's anyone up there who hasn't taken part in some way, shape or form in that training so far. HR Manager, Trout River Industries

In another instance a private regional trades training school tested the inventories first on their pre-employment students. They reported that the tools were successfully used and students seemed very grateful.<sup>20</sup> One of their participants stated: **"I was quite rusty in some of my skills including math. I would never have been able to complete the course without the extra help that I got."** Plumbing student Eastern Trades School, St. John New Brunswick

## Data

The following is a brief overview of the main data from the research. **Please refer to Section 2 of this document for the detailed Technical Report.**

Data was collected for 125 research subjects as per the contract requirements. Research subjects were identified as the first 125 receiving more than one hour of intervention, including the essential skills inventory (ESI). Of these individuals, 106 of the 125 formally entered the program.<sup>21</sup> Reasons for the remaining research subjects not entering into intervention included not having any significant essential skills needs, leaving for job opportunities elsewhere or going on to challenge for their Red Seal.

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<sup>20</sup> Video interviews December 2009, Essential Skills Coordinator and students, Eastern Trades School, St. John, New Brunswick

<sup>21</sup> These numbers were as of the time of data interpretation. The numbers will change as more research subjects complete their interventions. For example, at the time of report writing, 53 Red Seal challengers were successful, an increase for 48 at the time of data compilation.

## Client Demographics

<p><b><u>General Data</u></b></p> <ul style="list-style-type: none"><li>• Average age range - 40 to 43</li><li>• Average intervention hours - 60</li><li>• Majority were "Challengers"</li><li>• Trades represented:<ul style="list-style-type: none"><li>○ Automotive Service Technicians - 10</li><li>○ Carpenters - 58</li><li>○ Construction Electricians - 2</li><li>○ Cooks - 13</li><li>○ Plumbers - 9</li><li>○ Steamfitters/Pipefitters -18</li><li>○ Welders - 15</li></ul></li></ul>	<p><b><u>Gender and Age</u></b></p> <p><b>Gender</b> 94% Male</p> <p><b>Age:</b></p> <ul style="list-style-type: none"><li>• 25 were age 20 to 29 years</li><li>• 24 were age 30 to 39 years</li><li>• 42 were age 40 to 49 years</li><li>• 29 were age 50 to 59 years</li><li>• 2 were age 60 or more</li><li>• 3 did not respond to this question</li></ul>
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### **Education Levels**

Forty-seven (37.6%) of the clients had attained high school or high school equivalency, and 55 (44.0%) of the clients had attained more than high school education. This illustrates that having a high school education does not always correspond with having the essential skills required for a trade. This finding does not necessarily mean that what is learned in high school is deficient, but, perhaps, that in a socially complex and highly technological age, the knowledge required to be successful in a trade is becoming more specialized. Sixty-six percent of the clients had been out of school for more than 15 years.

(66%) of the clients had been out of school for more than 15 years.

### **Employment Status**

Clients were asked to indicate their current employment status (Table 18). Of the clients, 116 (92.8%) were working in the trade and many were self-employed.

### **Spreading the Word**

Data indicates that the most effective modes of information transmission were the Trade Essentials staff (36%) and word of mouth (34.4%). This finding is not surprising in Prince Edward Island where people are from close knit family and community units.

# General Program Outcomes

## Essential Skills Data Summary<sup>22</sup>

- 125 research subjects
- 106 attended interventions
- 19 of the 125 were assessed but did not participate in programs
- 73 of the 125 chose to challenge the Red Seal exam
- Of the 73 Red Seal challengers, 48 (66%) achieved Red Seal certification

## Number of Interventions

The program offered as many hours as required for each research subject, depending on their commitment to learn. As of February/March 2010, there remain a number of research subjects who have not yet achieved their goals.

## Hours of Intervention

A higher percentage of clients who received between 40.1 and 80.0 hours of intervention passed the Red Seal Certification Exam. This may suggest that

- forty and fewer hours of intervention are not sufficient to learn the necessary skills required to pass the exam
- those who required more than 80.0 hours of intervention may be in a high deficit position in terms of essential skills and a program of this nature may not meet their needs
- those who required more than 80 hours of intervention required greater motivation to continue learning
- those who required more than 80 hours of intervention had significant gaps in their technical skills, and/or
- those who required more than 80.0 hours of intervention may have a learning disability that has not been diagnosed

## Red Seal Outcomes

It is important to note that the purpose of Trade Essentials was to close essential skills gaps. However, many clients saw achieving the Red Seal as a personal goal that motivated them to participate. Often times the key factors that led a client to choose to challenge for the Red Seal were

- confidence that they had the knowledge to write
- discussions among peers regarding readiness to write
- group pressure to : “give it a try” and “see what it looks/feels like”

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<sup>22</sup> These numbers were as of the time of data interpretation. The numbers will change as more research subjects complete their interventions. For example, at the time of report writing, 53 Red Seal challengers were successful, an increase from 48 at the time of data compilation.

For reasons such as outlined above, not all those who chose to challenge would be considered prepared for success in terms of their levels of essential skills.

**Years Registered as an Apprentice:** The data indicated that those who were registered between 6 and 15 years had a higher success rate with the exam.

**Education:** The results indicated that a higher percentage of clients with more than high school education passed the Red Seal exam compared to those with high school or less.

### **Professional Skills Record Outcomes**

The Professional Skills Record (PSR) was presented to 106 learners who were participating in essential skills programs and 67 agreed to become research subjects to aid in the development of the tool. All recommendations of the research subjects were incorporated into the final draft of the PSR.<sup>23</sup>

Personal evaluation of the PSR is recorded in the Trade Essentials project through the independent external evaluation report. Reported findings show that 89% of the research subjects reported that the PSR helped them “clearly identify their current trade specific skills and areas that they needed to work on”.

Although the PSR was originally designed as a tool to help apprentices move through a PLAR/PLA process, input gained from our dissemination audience, demonstrates that the tool has broader applications. These applications include:

- developing learning plans with immigrants before they come to Canada
- introducing Canadian trade terminology to tradespeople before they emigrate from their country of origin
- tracking skills and learning of outcomes of students in secondary and post-secondary programs
- introducing secondary and post-secondary students to the full scope of the trade when they first enter trades training
- providing a tool to apprentices so they can self-assess their skills and learning
- helping tradespeople build skill based resumes

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<sup>23</sup> Specifics of the Professional Skills Record are detailed in a separate report (Development of Professional Skills Record (PSR) and Recognition for Skills and Learning (RSL) Implementation Plan, MacAulay, G. 2010. The report can be found at [www.tradeessentials.ca](http://www.tradeessentials.ca).

## **Additional PSR Testing Case Studies**

Outside the parameters of group testing, the PSR was used to respond to the needs of two immigrants. In both these instances, the PSR proved to be a very effective self-assessment tool in helping the client reflect and assess the full scope of their trade skills. The client was then able to make an informed decision and create a learning plan that built upon their prior learning.

## **Observations and Considerations from the Research**

*The research leads to* a number of considerations that can be derived from the data collected. These points may become part of future studies related to this subject.

### **Demographic Observations**

- The Trade Essentials Project was accessible to individuals in all three counties of Prince Edward Island.
- Participation was dispersed across a wide age range.
- The program had a universal appeal, attracting participants from across all geographic regions of the Province.
- Similar to many trades programs, females in the Trade Essentials Project were under-represented in all trade occupations other than cooks; attracting women to traditionally male trades continues to create challenges on P.E.I.
- The data indicated that carpentry had the greatest representation with 46.4% of the clients being from that trade. This makes sense when considering that many carpenters start out as general labourers on construction crews and build their skills on the job.
- Sixty-six percent of the clients had been out-of-school for more than 15 years.
- Almost 80 percent of the clients were over the age of 30.
- Age did not appear to be a significant factor in the number of clients requiring essential skills training.

### **Job Mobility**

Increased job mobility was initially thought to be a key consideration of those enrolling in the program. A follow-up telephone survey was conducted among those who were successful in obtaining certification and mobility out of province was not a key factor. Out of 37 responses, the majority were employed on PEI and only 6 responded that they may consider moving off Island within one year. Three said they were likely going to move off Island

these were certified in a trade that had limited labour market spread on PEI (e.g., steamfitters/pipefitters).

## Client Preferences

- The majority of clients (94.2%) preferred evening training sessions.

## Marketing and Incentives to Enrol

- The most effective modes of information transmission were the Trade Essentials staff and word-of-mouth. As mentioned previously, it is worth noting that many of these individuals may never have identified themselves to the apprenticeship system had they not been attracted to Trade Essentials. This is valuable labour market intelligence for the Apprenticeship Section.

## Learning Needs

- Numeracy, technical reading and document use, respectively, were of most concern to a large portion of the clients.
- The vast majority of the clients learned best through visual and kinesthetic means.
- A large portion of the research subjects underestimated their essential skills needs. This finding may help to explain why some tradespeople have difficulty passing the Red Seal exam as they are not good predictors of their own skills sets, and, consequently, may not be good predictors of the level of knowledge required to pass an exam.
- The most common difficulties encountered by the clients were questions related to math, the code book, reading and understanding questions, and limited technical knowledge of the trade.
- Through the Technical Skills Inventory, learners were able to identify any technical skill gaps they had and create a learning plan to fill these needs.
- When a project meets the needs of the clients, individuals of all ages are willing to return to training to improve their work related opportunities.

## Success Challenging Exams

- A high percentage of the 125 research subjects who attempted the Red Seal exam were successful (65.8%). This finding suggests that following Trade Essentials training, a large portion of those who chose to take the exam were able to judge their ability to pass the exam.
- The data indicated that those who had registered as an apprentice between 6 and 15 years had a higher success rate.

- The pass rate was much higher for those who had previously written the exam, suggesting that prior experience with writing a Red Seal exam is very helpful in a subsequent attempt.
- Since the start-up of the Project, the number of individuals attempting the Red Seal exams in the Province has increased. There is additional evidence that the number of tradespeople challenging the exam from the program is continuing to increase.
- Between 40-80 hours of intervention yielded the best results.

## Client Success and Essential Skills

- Having a high school education does not always correspond with having the essential skills required for a trade.
- While a higher essential skill level might be the ultimate goal, once a client passes the Red Seal exam there is very little incentive to continue with life-long learning.

## Professional Skills Record

The PSR proved to be a very effective self-assessment tool in helping the client reflect and assess the full scope of their trade skills. The client was then able to make an informed decision and create a learning plan that built upon their prior learning.

## Results As Compared With the Objectives

Objective	Results
To increase essential skills of participating research subjects	Essential skill levels of all research subjects showed improvement as demonstrated by results of the post-assessment.
To increase the percentage of trade workers who challenge the Red Seal certification exam	Many research subjects had not attended training; many had been out of school for a long time and would not have challenged without the opportunity to prepare for testing. Others were repeat challengers who may not have had the confidence to try again. The goal of the Trade Essentials project was to recruit 125 clients and to have 50% of the research subjects challenge the exam. This goal was achieved (see data). An additional goal of an 80% pass rate was not reached as the success rate was 66%. While not the target goal, this outcome represents a marked improvement over previous rates.

Objective	Results
To increase the number of unlicensed trade workers who successfully challenge a trade exam	Two groups were preparing for Technical Training, Block 1. The first group of Cooks had an 89 % pass rate on Block exam; Second group had not completed technical training at project end.
To create a user-friendly, safe, non-threatening learning environment	Research subjects reported that they were very satisfied with the learning environment and would recommend it to others. Research subjects found the hours of operation convenient, the location suitable, the environment comfortable for learning and the staff to be available and approachable. They reported that there was value in providing this type of a centre for apprentices. <sup>24</sup>
To increase the confidence of participating research subjects	Research subjects reported that they were more confident in their ability to learn and to challenge the Red Seal exam. <sup>25</sup>
To create an individual learning path for each client	This project has resulted in the development of a new process to guide individuals through the apprenticeship system, regardless of their entry path. All clients participate in an informal assessment process to gaps in both essential skills and technical skills of their trade. Individual learning paths are developed unique to each client's needs.
To increase the capacity of clients to understand and use safe work practices by including safety material in essential skills program curriculum	Technical Reading and Document Use are essential to interpreting safety information in the workplace. All curriculum guidelines include safety information as suggested learning resources.
To develop trade skills	Essential Skills Inventories, Essential Skills

<sup>24</sup> Trade Essentials Evaluation Report-Sept 30, 2008, Appendix C)

<sup>25</sup> Ibid

Objective	Results
records, essential skills inventories and essential skills trades curriculum that can be used in other jurisdictions	Curriculum Guides, Technical Skills Inventories And Professional Skills Records were created for thirteen trades and are available in both official languages.

# Personal Accounts - Trade Essentials Impact

The Trade Essentials project has served many clients and has received much positive feedback on the impact of this service. The following statements illustrate the different viewpoints on the value of the service.

It has led to a whole new attitude. Now talking on the floor has become a conversation. Even in the gazebo where we sit around and talk we have intelligent conversations, rather than rambling about what happened the night before in the village. Welder, Trout River Industries

I always loved to cook. I worked in a bakery for years, and also in the potato, oyster and call centre industries, but I had not found my niche. When I joined Trade Essentials, the staff reviewed the essential skills I already had, and identified the ones I needed to work on. I realized I had a lot more skills than I thought I did. It was a real confidence booster. After being out of the system for so many years, going back to school can be very daunting. The Trade Essentials staff went above and beyond to help us feel comfortable. They answered all our questions or found someone who could. After the block release, they kept in touch and made sure we were getting along well. The Apprentices in my group ranged in age from early 20s to 50s, and we all learned from each other's experiences. - Cook, Cardigan

I have wanted to write my Red Seal now for a few years and this course is the one chance I have to do it. It gives me the guide to what I need to study and without it I wouldn't know where to start. Carpenter, Cornwall

I got such personal satisfaction and a feeling of self-worth from earning my Red Seal. Since I earned this designation, I have been offered a part-time position as a carpentry instructor for the very same program that helped me to prepare for the Red Seal exam. I teach the Carpentry Trade Essentials program two evenings a week and this fits in fine with operating my business. This program provides a chance to really prepare for the Red Seal exam. When I was participating in the program, I was part of a group of carpenters who were all working towards the same goal. - Carpenter, Cardigan



"It makes me feel proud." AST, Summerside

# Lessons Learned For Best Practices

The following sections identify issues encountered and lessons learned through the implementation of this program and define some best practices for future implementation of similar programs.

## Client Intake

### **Information Sessions are Important**

Information sessions are an important first step in the selection process so that potential clients have a clear understanding of the mandate of Trade Essentials.

### **Dynamic Assessment is Worth the Time Invested**

A dynamic assessment approach, though time consuming, is worth far more than the investment of time. This approach enhances the apprentices' self-confidence and their willingness to engage in learning. Program research subjects consistently describe the one-on-one informal assessment process as non-threatening, informative and highly valued.

## Interventions

### **Incorporate Module on Essential Skills**

An essential skills workshop using the profile for the trade should be incorporated into the first session. In addition, the NOA should be introduced during the first class or one-on-one session and should be referenced throughout the course.

### **Cross-Curricular Approach**

Essential skills should be delivered with a cross-curricular approach - many skills can be taught simultaneously.

### **No Fixed End Dates**

Programs should not have fixed end dates, but should rather be open ended to accommodate individual learning styles, needs, abilities, etc.

### **Ongoing Monitoring**

Ongoing monitoring by the instructor is critical to assist participants to determine readiness for exit/testing.

### **Emphasize the Learning Plan**

Emphasis should be placed on the learning plan so that clients can assume responsibility for addressing their skills gaps.

### **Continually Track Progress**

Tracking of progress is important so that learners understand how well they are doing in terms of improving their essential skills. Exit interviews should be scheduled with each client to determine readiness if the client plans to write the Red Seal exam; essential skills post-assessment results should be reviewed at this time.

### **Balance Individual versus Group Needs**

Attention should be paid to the individual needs of the group to determine the pace for instruction. One-on-one tutoring should be provided for those who are not yet ready to be in a group setting.

### **Spend Time on Study Skills**

Time should be spent up-front on study skills (i.e. reading with understanding, highlighting, organizational skills, note-taking, and study habits), as well as time for test taking skills.

### **Offer Short Courses**

Short courses could be offered at each Centre for different client groups (i.e., Understanding the Code Book, Reading Blueprints, Trigonometry Refresher, Introduction to Computers)

### **Encourage Mentoring Path**

Clients who become Red Seal certified should be encouraged to return for a course in mentoring new apprentices and should also be encouraged to share their experience and skills with those new to the trade.

### **Compulsory Essential Skills**

Certain essential skills need to be compulsory for everyone enrolled in a Trade Essentials program. All learners could benefit from instruction in oral communication, reading strategies, study and test-taking skills.

### **Provide Ongoing Referral Services**

Referral services must be provided for the percentage of the population who may have learning differences. Their needs are the greatest and are therefore in need of the most help.

## **Technical Skills Inventory Feedback**

The most beneficial time to provide feedback and engage the learner in future planning was at the mid-point of the essentials skills program because

- learners were still in the “learning frame of mind” rather than at the “finish line”
- the TSI feedback gave the learner an opportunity to share how they were getting along in the Trade Essentials program
- it gave the learner an opportunity to evaluate whether any of their technical skills gaps were being met indirectly through the Trade Essentials program
- it gave the learner an opportunity to develop a learning plan and to access technical skills resource materials to assist them in filling their technical skills gaps

## **Assessors/Instructors/Instruction**

### **The Right Instructors**

Instructor fit and suitability is the key to a successful program; finding the right instructor is one of the biggest challenges as not all trades instructors are familiar with essential skills.

### **Comprehensive Orientation Required**

Prior to program commencement, assessors and instructors require training in the apprenticeship process, knowledge and use of essential skills, Essential Skills Profiles and the administration of essential skills inventories. This will enable the instructors to be in a position to better explain the role of essential skills, the link between ES and success in the trade, and the clear distinction between essential skills and trade theory.

### **Additional Desired Instructor Knowledge**

Instructors need to not only be knowledgeable about their trade and essential skills but to also be aware of and use the principles of Adult Education when teaching essential skills. Assessors and instructors need to have awareness and some knowledge of learning differences or disabilities.

It would be beneficial for instructors to have personal computer skills so computer use can be incorporated into the essential skills training for the trade.

Ample time should be devoted to instructor and assessor training so that they have a good understanding of how to incorporate essential skills into the curriculum. This training could include: computer training to input data into Excel spreadsheets and create pie charts, as well as more in-depth training

on how to on the use of the resources, including the National Occupational Analysis.

### **Allow Direct Observation**

As part of their orientation, assessors should have an opportunity to observe the assessment process as administered by a skilled assessor.

### **Ready-to-Use Learning Packages**

Resource materials should be available for instructors in the form of ready-to-use learning packages (i.e., metric system, formulas, building code activities specific to the trade, study and test taking skills).

### **Consider the Option of Team Teaching**

Because each program has learners with diverse needs, it would be beneficial to use a team-teaching approach with two instructors-one instructor with knowledge of the trade and an additional instructor with more of a “teaching” background. Each instructor could learn from the other and the roster of available instructors would increase.

## **General Observations**

- Based upon direct observation, test anxiety is a big issue; many tradespeople, although successful in their career, lack confidence in their ability to learn.
- Learning groups tend to band together and support one another in the classroom settings. Learners benefit from the support of their peers.
- Clients arrived in class after working a full day and in some cases without time to have had dinner-coffee and snacks-were welcomed
- Red Seal certification is most often a personal goal rather than a requirement
- In our experience, job mobility was not the key motivation for participation.
- There is a great sense of pride and accomplishment with attainment of a Red Seal certificate.
- The feedback from many of the apprentices has been that they appreciate the opportunity to learn with their peers at a time that is convenient to them (evenings, Saturdays) and in a setting where they are comfortable sharing their knowledge, or lack of it, with others.

# General Recommendations

## Regarding Tools and Processes

*The work accomplished in* this project is a further step in the development of processes and products for discovering and documenting the essential skills needs of apprentices. The research gives rise to a number of opportunities for further development and study.

We recommend that jurisdictional bodies

- provide physical space and the accompanying services to address essential skills needs for those in the trades
- create of professional development modules for the administration of dynamic assessments
- develop a framework and action plan to incorporate Recognition for Skills and Learning into apprenticeship
- use the Professional Skills Record and other Trade Essentials assessments as a template for the creation of workplace assessment tools in other career designations
- use the Professional Skills Record and other Trade Essentials assessments as tools to facilitate the transferability of skills and learning across jurisdictions
- develop tools to assist foreign trained tradespeople to learn Canadian trade terminology
- adapt Trade Essentials approaches to situations requiring heightened cultural or social sensitivity (e.g., using language of country/cultural origin, adapting cultural symbols, approaches that recognize current living environment such as correctional/mental health centres)
- Create paths within the Professional Skills Record chart to illustrate the learning path for each Block/Period/Level of training

## Regarding Further Research Opportunities

Based upon results of the research, the following areas have been highlighted as potential topics for further study

- the ability of clients to successfully assess their skills levels
- how to attract clients to further essential skills development beyond immediate certification goals
- the essential skills needed to prepare youth for a career in the trades (at the K-12 level)
- test anxiety as a barrier to success in the trades

# Legacy and Conclusion

## *The Trade Essentials*

**project** has left a legacy of resources and information that is very adaptable to different situations involving adult learners. These include the tools for 13 trades and related guidebooks, a database structure, a web presence, and, most importantly a detailed learning path process. These materials can be used for activities to guide clients from a point of personal understanding, confidence and power, toward fulfilling their skills needs and their career goals.



## Promising Applications

At recent workshops and meetings held in Manitoba and Saskatchewan there was input on many aspects of this program. Participants saw value in this approach within their own workplaces.<sup>26</sup> See Appendix “H” for a list of meetings held. Recognition and adaptation of the tools has already commenced through various regional, national, and international stakeholders. See Appendix “I” for a list of these activities.

What has been accomplished through this project represents another step along the path of national research activities to develop education approaches that respect and meet the needs of all learners. This work recognizes there is not a “one-size-fits-all” format to education. Trade Essentials has built a pathway to learning that considers the starting points and unique needs of learners to help them be successful in achieving their personal goals.

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<sup>26</sup> Some quotes from workshop evaluations held in February, 2010:

“...I can see Career Guidance Councilors in the school system using this.”

“We hope to use them for our PE [*pre-apprenticeship*] Trades programs.”

“Very excited to incorporate Trade Essentials components into our existing ES [essential skills] programs.”

*The hope is that this project adds further depth to all the work that has been carried out across Canada in this area and is regarded as a positive contribution to the development of a strong future trades workforce to meet the needs of industry.*

***A personal note on*** our collective experience meeting our clients for the first time...initially most expressed sincere gratitude for our assistance and on having a place of their own to learn. Later, when undergoing their initial assessments, there was often astonishment/relief that their way of learning is not only okay, but a recognized "learning style". In this sense, the success of the approach is that it is geared *for* learning and provides an individual with a chance to realize what he/she already knows. From these points of personal power we can move forward from a perspective of success and possibilities.

We have witnessed amazing regeneration of confidence and hope among many of our clients – sparking considerations of further learning and future opportunities. This energy builds family, community, and economy in a direction that can meet any demands placed upon it.

**Trade Essentials ... more skills, more opportunities**

# Appendices

## Appendix "A"

## Trade Essentials Advisory Committee

### Current Members:

Name	Mailing Address
Susan MacKenzie Director, Continuing Education and Training	Department of Innovation And Advanced Learning
Sherri Barrett Labour Market Advisor	Mi'kmaq Confederacy of PEI
Adam Doucette Employment Counsellor	PEI Association for Newcomers to Canada
Barbara Macnutt Manager Literacy Secretariat Continuing Education and Training	Department of Innovation And Advanced Learning Workplace Learning Inc.
Jake Baird Vice President/Chief Learning Officer - Holland College	Holland College
Ross Barnes General Manager	Construction Association of Prince Edward Island
Grant MacLeod Private Sector	BMR Building Supplies (past representative. for PEI Apprenticeship Board)
Catherine O'Bryan Executive Director	PEI Literacy Alliance
Sue LeFort, Manager Apprenticeship Section	Department of Innovation & Advanced Learning
Ray MacBride IBEW Business Manager	International Brotherhood of Electrical Workers

### Past Members

Name	Mailing Address
Ken MacRae/Mike Clow	PEI Department of Education
Jeff Brant, Director. Socio-Economic Development	Mi'kmaq Confederacy of PEI
Jennifer Howard Catherine Runahan	PEI Association for Newcomers to Canada
Tracy Warren-Burke Executive Director	Burke's Custom Metal Works Inc. PEI Association of Sector Councils
Phillip McInnis General Manager	Construction Association of Prince Edward Island
Lillian Whiteway, Consultant	Service Canada
Paul Chaisson Business Representative	Carpenter's Union - Local 1338

## Appendix "B"

## List of Instructors and Assessors

Craig Beaudreau

Ian Carr

Gaylene Carragher

Duffy Chaisson

Susan Cheverie

Rod Dempsey

Claudia DeBlois

Chris Delderfield

Mark Douglas

Glenn Ellsworth

Brian Graham

Terry Hockley

Nancy Kelly

Roger Kelly

Scott Lacey

Leo McDonald

Anthony Millar

Mary Olscamp

Vaunda Richard

Ryan Rogerson

Kenny Zakem

## Appendix "C" Principles Of Adult Education

It is critical to create an atmosphere conducive for learning. To accomplish that objective, one must be cognizant of both the characteristics of adult learners and the principles of Adult Education.

The principles of Adult Education include<sup>27</sup>:

- **Adults must want to learn.**  
The apprentices are intrinsically motivated to learn as they see the need for training and certification (licensing). Interestingly enough, the majority of apprentices identified personal satisfaction as the reason for participating in an essential skills program before job mobility or increase in pay.
- **Adults will learn only what they feel they need to learn.**  
They have a practical approach to learning as they need to know how this learning will affect them now.
- **Adults learn by doing.**  
The majority of apprentices in this project identified their predominant learning styles as kinesthetic and visual, rather than auditory.
- **Adult learning focuses on problems and the problems must be realistic.**  
The essential skills inventories focus on the competencies required for each specific trade. Tradespeople tend to be problem solvers since that is the nature of their jobs.
- **Experience affects adult learning.**  
Apprentices bring varied backgrounds in the skills they have acquired as well as attitudes about learning. The intent of the Trade Essentials program was to make this a positive learning experience for everyone.
- **Adults learn best in an informal situation.**  
The feedback from many of the apprentices has been that they appreciate the opportunity to learn with their peers at a time that is convenient to them (evenings, Saturdays) and in a setting where they are comfortable sharing their knowledge with others.
- **Adults want guidance.**  
For the first time in this province, there is a place dedicated to apprentices to go where they can access the information and the support they need to continue on their path to trades training and/or certification.

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<sup>27</sup> Adapted from [www.assetproject.info](http://www.assetproject.info). Learner Centered Methodologies, Wynne, R., March 2006

## Appendix “D” Characteristics of Adult Learners<sup>28</sup>

- Adult students are mature people and prefer to be treated as such. Being “lectured at” can cause resentment and frustration.
- Adults are goal /relevancy-oriented. Adults need to know why they are learning something. They have needs that are concrete and immediate. They tend to be more interested in theory if it is linked to practical application.
- Adults may have insufficient confidence. Some may have had poor prior experiences within the education system that has led to feelings of inadequacy and fear of study and failure. Many of the apprentices in this project have been out of a formal learning situation for 20 years or more. Returning to a classroom environment is a major change.
- Adults are often tired when they come to class as they are juggling work, family and other responsibilities. For example, in the Trade Essentials program, the majority of the apprentices were working full time and attending this program in the evenings. Many also drove considerable distances.
- Adults learn best when they are ready to learn and when they have identified their own learning needs as opposed to being controlled by someone else. They want to choose options based on their own needs. In the Trade Essentials program, the ESI identified the skills in need of updating by using in context materials for a guided self-assessment.
- Adults learn at different rates and in various ways according to their learning styles, educational level, experiences and relationships. A part of the ESI is a learning styles inventory. Most apprentices have not ever been asked to identify their learning style and this is often an “aha’ moment for the apprentice.
- Adults have accumulated life/work experiences. They tend to favour learning that draws on their prior skills and knowledge. The ESI is an assessment *for* learning, so it provides an opportunity for the individual apprentice to realize what he/she already knows.

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<sup>28</sup> Information from: [www.literacy.ca](http://www.literacy.ca), Movement for Canadian Literacy, Principles of Adult Education.

## Appendix "E1"      Instructor Orientation

### Instructor Training Schedule September 17, 2008

#### Workshop Topics

- Welcome and Introductions
- Trade Essentials-Project Overview
- PEI Apprenticeship System
- Essential Skills/Essential Skills Profiles
- Essential Skills Inventory (Process/Tools)
- Technical Skills Inventory/Professional Skills Record
- Q&A/Resource Materials
- Individual/Class Profile
- Curriculum
- Adult Education Principles
- Documentation/Project Requirements/Evaluation
- (Code of conduct, storm policy, time sheets/attendance forms)
- Wrap up and evaluation

## Appendix “E2”      Assessor Training

### 1. Essential Skills

- What are they
- How were they developed
- What are the complexity levels and why are they important

### 2. Dynamic Assessment Model

- What is it
- Why is it used

### 3. The Inventory Process

- Explanation of Essential Skill Profiles
- Intake information for apprentices
- Learning styles
- Essential skills inventories for six essential skills
- Skills summary/feedback

### 4. Post Inventories

- Administration
- Results

### 5. Feedback session for apprentices and instructors

Course: \_\_\_\_\_

Date: \_\_\_\_\_

Please read each of the following statements and check whether you agree or disagree with it.

		<u>Yes</u>	<u>No</u>	<u>Not sure</u>	<u>N/A</u>
1.	The program has given me an opportunity to improve my:				
	Math Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Technical Reading Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Document Use Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Oral Communication Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Computer Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	The overall program is well organized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Instruction and learning activities are well organized and well scheduled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	The learning materials are well organized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	The resource books (other books that you don't use regularly) are readily available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	The materials are new, up-to-date and Canadian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	The classroom is well set up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	The classroom environment is comfortable for learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I always know what is expected of me in this program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	The material is suited to my individual needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	The learning activities are explained well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Program rules and procedures (attendance and progress) are reasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	This program suits my learning style.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I would recommend this program to someone I know.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Non-teaching staff are courteous and helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please write any additional comments you have on the program's strengths and weaknesses on the back of this page. All comments will be held in confidence.

If you would like to speak to someone about this evaluation, please check here.

Your name: \_\_\_\_\_

Person you would like to speak to \_\_\_\_\_

Adapted from: Holland College Adult & Community Education Program Evaluation

## Appendix "G" Telephone Survey

Note 45 Surveyed and 37 responses

Trade	Working in PEI in Trade	Planning to Leave Within 1 Year	Comments re Impact on Employment
<b>Carpentry</b>	Yes	No	No difference
	Yes	No	Acquired a teaching position: increased transferable skills and self esteem
	Yes	No	Yes-excellent course, great instructor
	Yes	No	25 yrs in trade-no difference but a good asset, good opportunity, good experience
	Yes	No	Worked as a foreman before and still does-very happy to have certification and to have participated in the program
	Yes	No	100% difference
	Yes	No	Has his own company-employs two apprentices
	Yes	No	More money, more responsibility, better overall
	Yes	No	Now self employed and has the credentials the customer needs-could not have succeeded without TE
	Yes	No	No difference
	Yes	Yes	No difference in PEI-with relation to pay, Red Seal means nothing here
	Yes	No	Not yet
	Yes	No	No change-great course
	Yes	No	New full time job and some private contracts-big difference-recommend to all
	Yes	No	Slight pay increase
	Yes	No	Red Seal was a goal-achieved but no change in employment; if you want more money you may have to leave PEI
	Yes	No	Personal satisfaction/sense of pride. Re program, need more Code, less Math
	Yes	Short-term	Leaves for a few weeks each year; would like more code book and reduced cost for code books
	Yes	No	Hasn't changed status as he is self employed
	Yes	No	Course was 100%-Leo was great-no change in employment
	Yes	No	Great course-Leo was great-no impact on employment yet
	No	Maybe	It will improve job opportunities. Course better than Block and he learned from the experience of others in the class

Trade	Working in PEI in Trade	Planning to Leave Within 1 Year	Comments re Impact on Employment
	Yes	No	No difference yet-course was pretty good and class on code book was great
	Yes	No	Is self employed-no significant difference but can sign off for apprentices
	Yes	No	May start his own company
	Yes	Maybe	Red Seal will make it easier to get hired
<b>Plumbers</b>	Yes	No	No difference-had the responsibility of a journey person already
	Yes	No	More responsibility-doing more in-depth work-job description has changed
	Yes	No	Got a raise but still believes that time and experience will allow him to prove his skills
<b>Automotive Service Tech</b>	Yes	Maybe	Better chance of being hired-no change in employment re pay or duties
	Yes	No	No change
	Yes but not in Trade	No	Continues to work in aviation; Red Seal in AST was a personal goal
	Yes	No	No difference but would recommend the program
<b>Steamfitter/Pipefitter</b>	No	Yes	Is working in another province
	Yes	Maybe	Very positive impact as he has more choices-very pleased with the program
	No	Yes	Can go to NB or West
	Yes	Only if there is a shortage of work here	Has been working as a fitter rigger-now the ticket means he can go to any province. Can respond anywhere where there is work

## Appendix "H"

## Dissemination Meeting Schedules

### Winnipeg

Date	Time	Event	Location	Number
Thursday, Jan 21	9-4	Full day workshop	Canada Inns Polo Park Winnipeg	51
Thursday, Jan 21	6:00	Networking Dinner	Unknown	
Friday, Jan 22	9-11	Meet with group from Assiniboine College	Unknown	
Friday, Jan 22	11-2	Meeting and lunch with Red River College	Unknown	

### Regina

Date	Time	Event	Location	Number
Monday, Jan 25	9-4	Full day workshop	Burlington/Berley Rm Travelodge Hotel 4177 Albert St Regina SK	75 approx
Tuesday, Jan 26	1:30 2 hrs	Meet with the Ministry of Advanced Education, Employment and Labor	Room 623 Wascana Campus-6 <sup>th</sup> Floor 4500 Wascana Parkway	1 Member

### Saskatoon

Date	Time	Event	Location	Number
Wednesday, Jan 27	Mid day 3hrs	Meetings in Saskatoon with interested groups	Unknown	

### Prince Albert

Date	Time	Event	Location	Number
Thursday Jan 28	9-4	Full day workshop	SIAST Woodland Campus 1100 15 <sup>th</sup> St East Prince Albert SK	55 approx
Friday, Jan 29	8:30-10	Meet with Apprenticeship and Trade Certification Commission	Dining Room?	2 Consultants

### Prince Edward Island

Date	Time	Event	Location	Number
Friday March 5th	2-4	2 hour national webinar presentation on the tools	University of Prince Edward Island	60 registrants
Wednesday March 10th	9-4	Full day workshop	Delta, Charlottetown, PE	35

## Appendix "I" Activities Related To Adaptation Of Trade Essentials

- The PEI Apprenticeship section is exploring opportunities to offer essential skills refreshers to pre-block release tradespeople
- PEI Newcomers Association has expressed interest in using assessment processes, specific to trades, with Immigrants
- The TE project has developed and piloted a mentoring program for journeypersons that incorporates the use of the Professional Skills Record. It is anticipated that this program will be further enhanced and delivered by the PEI Apprenticeship section.
- PEI Trucking Sector Council has expressed interest in developing tools for sector/ongoing research in partnership with the Province
- Provincial Correctional Centre has used the essential skills Inventory with inmates
- Private Colleges have successfully utilized essential skills Inventories in pre-employment programs with more than 200 clients
- The National Essentials Skills Working Group spoke favourably about the Trade Essentials program/outcomes following a presentation to the Canadian Council of Directors of Apprenticeship in February 2010.
- The Canadian Association for Prior Learning Assessment published an article in the national newsletter "The Hub" and in the National Adult Learning Database (NALD)<sup>29</sup>
- Professional Skills Records will be accessible on CAPLA's Recognition for Learning (RFL) web site and will include a link to the Trade Essentials web site.
- Presenters at the 2009 Canadian Association of Prior Learning Assessment (CAPLA's) Recognizing Learning Conference, Banff AB from the G. Raymond Chang School of Continuing Education, Ryerson University, focused on recognition of skills to improve access to work opportunities for internationally educated professionals. During the presentation they highlighted the PSR, developed through the Trade Essentials project in PEI, as the model they are using to develop a PSR for internationally trained health professionals. They will be piloting their PSR in the workplace in the spring of 2010.<sup>30</sup>
- A representative from the National Training Board, Hamilton, Bermuda, expressed an interest in exploring how the PSR could support the development of apprenticeship in Bermuda.

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<sup>30</sup> "PSR's were originally developed to recognize tradespersons' essential skills on P.E.I. about ten years ago. When MacAulay pointed out their relevance in 2009 to PLAR for internationally education professionals, that was our cue!" Presenting the PSR as a vital PLAR Tool, submitted by the G. Raymond Chang School of Continuing Education, The Hub newsletter, January 2010.

# Glossary

**Apprenticeship** - An individual who is registered with a jurisdictional apprenticeship authority and follows the Block/Period/Level process in reaching certification.

**Assessors** - Individuals trained to administer and interpret essential skills and technical skills assessment tools developed by the Trade Essentials project.

**Authentic workplace documents** - Actual documents obtained from an employer that may be used as teaching tools. An example document is a Material Safety Data Sheet (MSDS).

**Block Release Training** - A period of in-school training for apprentices. It may also be referred to as Period Training or a Level.

**Competency-Based** - Educational programs designed to ensure that students attain pre-specified levels of competence in a given field or training activity. Emphasis is on achievement or specified objectives. (From Scribd.com)

**Dynamic (interactive) Assessment**<sup>31</sup> - A flexible, holistic, context-sensitive approach used to evaluate learning.

Dynamic assessment procedures vary on a number of dimensions, but primarily with regard to degree of standardization of interventions, as well as content. In this instance the project is using a curriculum-based approach that uses actual content from the learner's educational program, with interventions based on "best practices" of teaching.

**Essential Skills** - The set of nine skills defined by Human Resources and Skills Development Canada as being common to all occupations. The skills are: reading text (technical language), document use, numeracy (math), oral communication, writing, computer use, thinking skills, continuous learning and working with others.

**Essential Skills Profile** - A document that describes how each essential Skill is used by an occupational group.

**GED General Education Diploma** - A Grade 12 equivalency for adults. A diploma issued by a provincial or territorial government that recognizes completion of High School. It is a challenge to use this as a common credential, since there are several different Grade 12 diplomas.

**Individual Learning Modules** - Developed by Alberta Advanced Education and Technology to modularize trades training. These full content modules are based on

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<sup>31</sup> <http://www.dynamicassessment.com/index.html>

the Alberta Apprenticeship course outline and are in wide use in apprenticeship training across Canada.

**Intervention** - Intervention refers to a trade specific essential skills program delivered to either a group or an individual.

**Journey person** - A person who holds a Certificate of Qualification in a designated trade. A certified journey person is allowed to train and mentor apprentices.

**National Occupational Analysis** - A comprehensive document that identifies and groups all the tasks performed by skilled workers in particular occupations in every province and territory. The NOA is primarily used to develop curriculum for programs and courses and to prepare questions for the Interprovincial Standards "Red Seal" exam.

**Potential Apprentice** - An individual who is in a pre-employment training program or who could be considering a career in a trade

**Red Seal** - A seal of endorsement applied to a Certification of Qualification for a trade. It allows for mobility among provinces and territories.

**Trade Essentials** - A three-year research project to develop essential skills and Prior Learning assessments and curricula frameworks specific to 13 trades and to pilot the materials with six of those trades. The 13 trades included in this project were: Automotive Service Technician, Carpenter, Cabinetmaker, Cook, Construction Electrician, Industrial Electrician, Machinist, Metal Fabricator, Oil Burner Mechanic, Plumber, Refrigeration and Air Conditioning Mechanic, Steamfitter/Pipefitter and Welder. Materials were piloted with Carpenters, Steamfitter/Pipefitters, Welders, Automotive Service Technicians, Plumbers and Cooks.

**Trades person** - For the purpose of this Guide, apprentice is an inclusive term that refers to anyone working in a trade except those already certified.

**Trades Qualifier/Challenger** - An individual who has several years of experience in a trade and has met the qualifying requirements to challenge the Red Seal certification exam but has not followed the traditional apprenticeship Block/Period/Level model