

Why Essential Skills matter in the trades

The business case for Essential Skills

What are Essential Skills?

There's a list of skills that people need for success at work and at home. It includes things you might expect, like computer skills. Technology plays an important role in our daily lives, so it's easy to see why computer skills are considered essential.

However, the list of "Essential Skills" also contains some surprises. In addition to computer skills, it includes reading, document use, numeracy, writing, oral communication and thinking skills.

But don't most Canadians already have these skills?

Most working-age adults in Canada do have these skills, but to varying degrees. And many people don't have these Essential Skills at the level they need.

For example, most people can read, but only about half of all adults read well enough to understand what's written in a safety manual because the language is quite complex. And that's a problem because many workplaces communicate this type of information in writing.

It's the same for numeracy (math) skills. Some people don't need more than basic math skills. But if you want to pursue a career in the trades, you need more advanced math skills. You can't perform

your job without them. And you definitely need them for technical training.

When you begin your apprenticeship, your instructors will assume you already have the Essential Skills required. Their focus will be on teaching you the technical skills of the trade, not foundation skills like geometry.

Think of Essential Skills as Velcro – learning sticks to them. If you have good Essential Skills, you will understand and remember the concepts introduced in technical training. If not, learning won't stick.

It has nothing to do with IQ or intelligence. It just means you haven't learned the Essential Skills you need yet or that you've forgotten them.

How do you know if your Essential Skills measure up? Take a free online assessment at the ITA Essential Skills website. It measures three key Essential Skills:

- Reading
- Document use
- Numeracy

It also compares your skills to those needed for your trade. Most people need to build skills in one or more areas, but it doesn't take long if you know which skills to target. The ITA website can help. It provides free learning resources you can use to build your Essential Skills.



How do the trades measure up?

There's an old myth that the trades are for people who can't make it in school. That couldn't be further from the truth.

The level of Essential Skills required for most trades is as high or higher than it is for many white-collar jobs.

Essential Skills – like reading, document use and numeracy – are measured on a five-point scale where one is low and five is high. The more complex a task is, the more skill it takes and the higher rating it has.

For example, you need Level 1 skills to read instructions on a soup can, but a cook needs Level 3 skills to read food safety regulations.

Most jobs in Canada need Level 3 Essential Skills or above. That includes the trades.

Take a look at table below with the different occupations and the level of Essential Skills they require. It offers some interesting comparisons.

For example, carpenters need higher document use skills than college instructors, dentists and social workers.

Millwrights and cooks need higher numeracy skills than optometrists and employment counsellors.

Any surprises for you?

Occupations	Essential Skills Levels		
	Reading	Document Use	Numeracy
Carpenters	3	4	4
College and Other Vocational Instructors	4	3	3
Cooks	3	3	4
Dentists	4	3	3
Employment Counsellors	4	3	3
Geological Engineers	5	3	5
Hairstylists	3	3	3
Industrial Electricians	3	4	3
Instrument Control Technicians	3	4	3
Millwrights (Industrial Mechanics)	3	3	4
Optometrists	4	4	3
Plumbers	3	4	3
Registered Nurses	4	4	3
Social Workers	4	2	2
Trades Labourers and Helpers	3	3	2
Truck Drivers	2	2	2
Welders	3	4	1

Source: HRSDC's Essential Skills Profiles: http://www10.hrsdc.gc.ca/es/English/all_profiles.aspx

Essential Skills and the impact on apprenticeship training

According to a study by three colleges¹, apprentices with the Essential Skills they need for their trade are eight times more likely to pass their technical exams.

Instructors do not have time to teach the basics like how to divide fractions, interpret graphs or read text. They assume apprentices already have these skills.

You need good Essential Skills so you can focus on learning the technical skills of your trade, not the basics like reading and math.

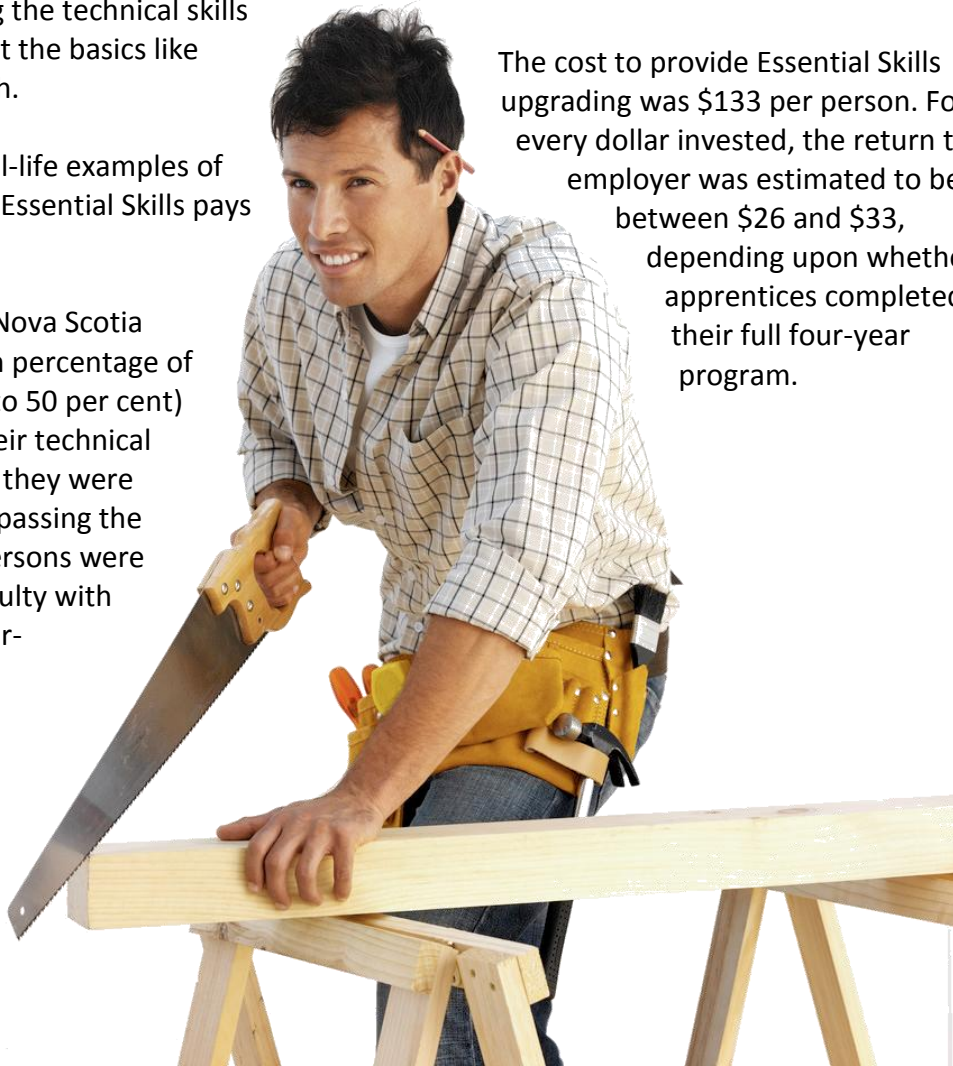
Here are two real-life examples of how investing in Essential Skills pays off.

The Province of Nova Scotia found that a high percentage of apprentices (25 to 50 per cent) had to repeat their technical training because they were having difficulty passing the exam. Journeypersons were also having difficulty with the Red Seal Inter-provincial exam.

The Province created some tools to help people build their Essential Skills. One was a refresher course in document use. The results were impressive. Ninety per cent of the people who participated in the course passed their technical exams.

In a study by the Construction Sector Council, SkillPlan and the Canadian Apprenticeship Forum, 44 carpentry apprentices were given Essential Skills upgrading in their first year of technical training². They found that these apprentices were more likely to pass their exams and they got higher marks.

The cost to provide Essential Skills upgrading was \$133 per person. For every dollar invested, the return to the employer was estimated to be between \$26 and \$33, depending upon whether apprentices completed their full four-year program.



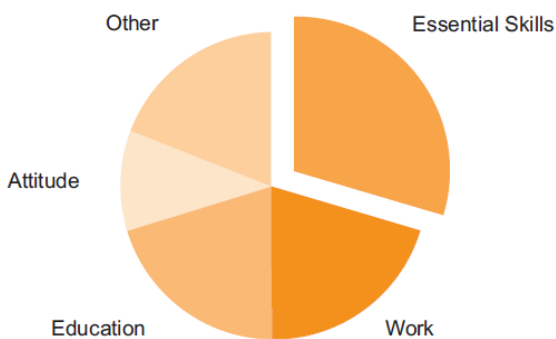
¹ Northern Alberta Institute of Technology, Lethbridge Community College and Medicine Hat College.

² The Business Case for Essential Skills in Construction. By the Construction Sector Council. January 2010.

Essential Skills affect income

In Canada, about 28 per cent of what you earn is directly related to your Essential Skills. Nothing else – not even education and experience – contributes as much to your income³.

People with Level 3 or higher Essential Skills find work a lot faster than people with Levels 1 and 2 skills – 29 weeks faster. That's more than seven months.



More money in your pocket affects quality of life in some surprising ways.

For example, people with low income are more likely to have health problems and live shorter lives. Even their children are more likely to suffer from poor health.

³ *Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey 2003.* By Statistic Canada. November 2005.

Essential Skills affect safety

People with good Essential Skills are less likely to injure themselves or others on the job.

The Canadian Trucking Human Resources Council and the Canadian Petroleum Products Institute did a landmark study⁴ to see if there was a relationship between Essential Skills and the likelihood of safety incidents among truck drivers – specifically, professional truck drivers who haul petroleum.

According to the research, these drivers need Level 3 reading skills. Those who do not meet this standard are 1.58 times more likely to be involved in a workplace incident.

Interestingly, they also found that safety incidents are more likely to occur when the driver is required to do something outside their normal routine, such as take an alternate route. This supports the notion that people with lower Essential Skills are less able to adapt to change.

⁴ *Essential Skills as a Predictor of Safety Performance Among CPPI-certified Petroleum Professional Drivers in Alberta.* By Carole MacLeod and Theresa Kline, Canadian Trucking Human Resources Council. March 2004.

If you don't use them, you lose them

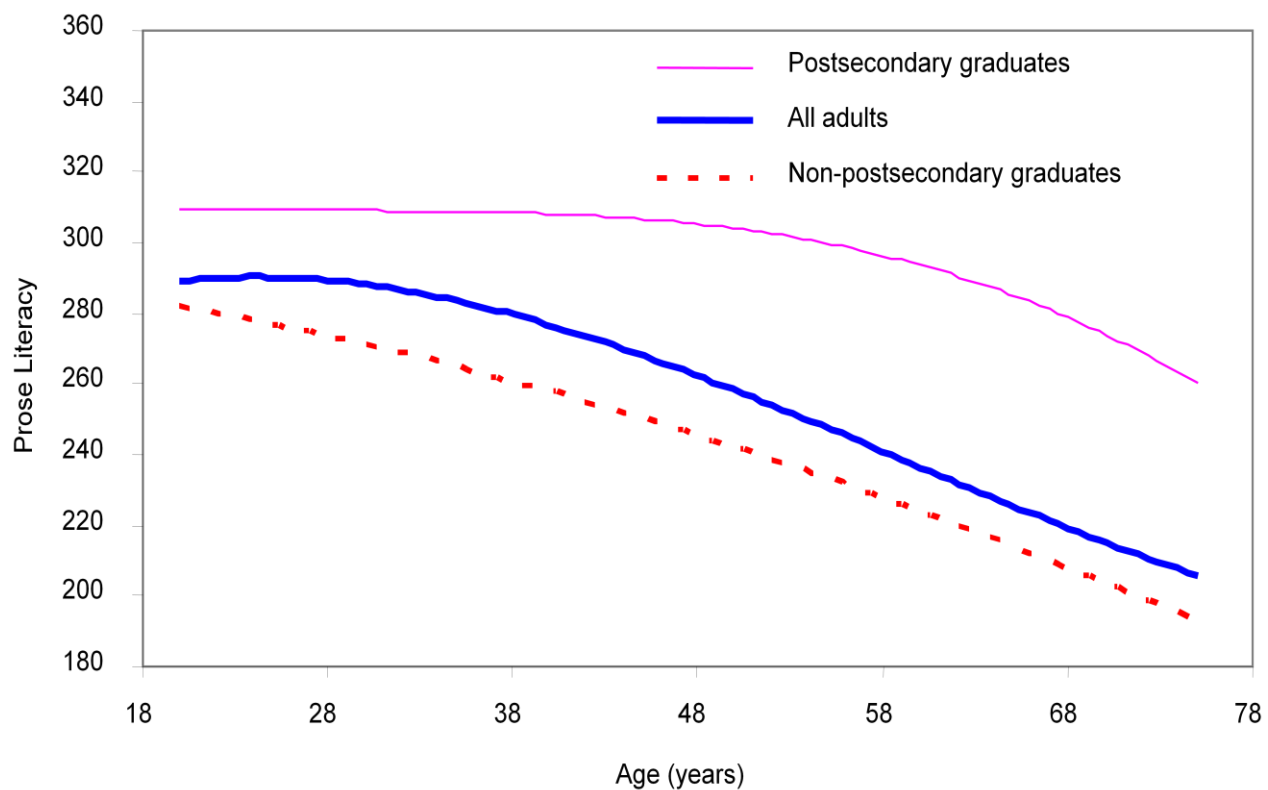
As people age, their Essential Skills decline.⁵ This is particularly true for people who do not pursue education beyond high school.

The theory is that people with a post-secondary education are more likely to continue reading and learning through their work. It's not just that they read; it's what they read.

In the graph below, age and education are combined and compared with reading skills.

People without a post-secondary education (indicated by the dotted line) show a steady decline in skills. When they finish high school at age 18, they have Level 3 reading skills but by the time they are 30, they have Level 2 skills.

The decline for people with a post-secondary education (indicated by the solid line on the top) is significantly slower. Skills decline at about the time when they retire.



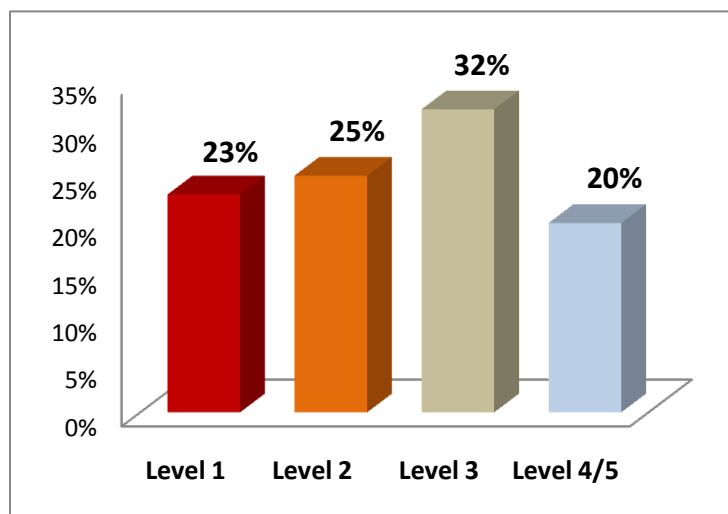
Literacy Score (vertical axis of the graph)	Essential Skills Level
1 to 225	Level 1
226 to 275	Level 2
276 to 325	Level 3*

⁵ Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey 2003. By Statistic Canada. November 2005.

Wanted: More workers with strong Essential Skills

Most jobs in Canada need Level 3 Essential Skills or above. But only about half of our working-age adults have these skills⁶:

- 48 per cent of adult Canadians do not have Level 3 reading or document use skills.
- 55 per cent do not have Level 3 math skills.



There are too many workers with low skills and not enough low skill jobs to go around.

Not all jobs need Level 3 Essential Skills but most do, even those that don't require post-secondary education like security guards.

Jobs are getting more complex, mostly due to technology. The trades are a good example. Increasingly, equipment is computerized. Just ask truck drivers, whose dashboard resembles an aircraft cockpit these days.

⁶ *Building on our Competencies: Canadian Results of the International Adult Literacy and Skills Survey 2003.* By Statistic Canada. November 2005.

That's why governments and organizations like the Industry Training Authority are creating tools to help people build their Essential Skills. Every dollar invested yields big results.

For example, the Government of Manitoba estimates that it would cost \$191 million to raise the reading skills of all adult Manitobans to Level 3. They would nearly double their investment because people who read better earn more and pay more taxes. It would create a \$365 million tax revenue increase⁷.

In a Canada-wide study⁸, the link between Essential Skills and Gross Domestic Product (GDP) was explored. GDP measures particular types of economic activity within a country. When it increases, the standard of living tends to increase as well.

A one per cent gain in Essential Skills scores would increase productivity by 2.5 percent on a per worker basis. That would increase Canada's GDP by 1.5 per cent, which is additional \$18 billion each year. The return on investment is three times greater than it would be for a capital purchase, such as equipment. The numbers tell the story – Essential Skills are a good investment.

⁷ *Measuring and Monitoring Literacy: What the data imply for policy in Manitoba.* By DataAngel Policy Research.

⁸ *2003 International Adult Literacy and Skills Survey.* By Statistics Canada.