



Workers and Technical Students in Essential Skills Training

How to make it better!

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Summary

How do we go about training workers and technical students in Essential Skills? Sault College used TOWES testing and conducted training interventions with three groups to test, train and retest workers and students about to enter the workforce. The groups included 29 workers from Essar Steel Algoma, 32 students from the electrical and mechanical programs at Sault College, as well as, 23 Aboriginal students in pre-apprenticeship programs. Eighty-four workers and technical students were tested for the project. A total of 35 workers and students participated in the Essential Skills intervention, for various amounts of training, with 5 workers and 6 technical students moving from Level 2 to Level 3 in Document Use, Reading Text and Numeracy. It was difficult to determine the level of commitment by the participants in the interventions, since they were not compensated for time lost and were required to attend this training outside of regular work and school hours. For an Essential Skills training program to be successful it must be supported from top management in the work environment and integrated into college programs.

Business Case

A significant portion of Canada's workforce has Essential Skills levels lower than the minimum level recommended for employees in the manufacturing sector. Located in north-central Ontario, Sault Ste. Marie is isolated from the mainstream workforce in Southern Ontario. The large majority of front line manufacturing workers entered the workforce following completion of high school as the nature of the jobs in the early years did not require a high level of technical skills. As in other locations, the manufacturing sector in Sault Ste. Marie was forced to evolve and introduce new technology such as automated rolling mills, to achieve an improved product and reduce labour costs. This increase in automation raises employee accountability and necessitates an increased skill level in electronics, mechanical maintenance, health and safety and information technology. Sault College is the largest deliverer of apprenticeship training in all of Northern Ontario. Students attending Sault College enter into a variety of programs in preparation for employment in today's workplace. The majority of Sault College students transition to local employment opportunities.

There are three groups included in this case study. The first group is workers currently employed in the workplace of Essar Steel Algoma who were attending this training to be eligible for promotion opportunities within the Steelworks. The second was the electrical and mechanical engineering students hoping to improve their Essential Skills and attain Level 3, which is the level required for attaining apprenticeships in some manufacturing corporations. The third group contained Aboriginal students who were enrolled in the plumbing pre-apprenticeship program and women enrolled in cook pre-apprenticeship programs who were attending the Essential Skills training to improve the overall level of success in academic skills upgrading and technical skills training.

Partnerships

The partnership consisted of three main partners, Essar Steel Algoma, Sault College Continuing Education Department and the Aboriginal Apprenticeship Centre. Essar's Joint Training Committee (Union and Management), have worked together with the Canadian Steel Training Education Committee (CSTEC) and recognize the need to offer Essential Skills training to the existing workforce. Also a large number of workers are eligible to retire, which will create job openings. Essar's management and its unionized workforce, the United Steelworkers, (USW) in their new letter of agreement "Commitment to Training" commit to develop and make available Essential Skills upgrading and functional skills enhancement to the workforce.

The Aboriginal Apprenticeship Centre (AAC) is a partnership between the Metis Nation of Ontario and Sault College and provides a client based approach to pursuing careers in the skilled trades to individuals in Sault Ste. Marie and the surrounding area. The AAC's goal is to increase Aboriginal participation in apprenticeship, increase youth awareness of trades and provide support systems for successful completion of apprenticeship training. The Project Coordinator, Lynne Sinclair has been a strong supporter of Essential Skills training that supports employment success and retention.

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Manager, Ted Newbery, recognizes the value of Essential Skills in the workplace. In addition, several of the college professors have worked as managers and supervisors in industry and understand the connection between Essential Skills and increasing productivity and health and safety at work.

Awareness and Promotion

A number of actions were undertaken to create awareness and promotion of the Essential Skills project at Essar Steel Algoma, Sault College and with the Aboriginal Apprenticeship Centre. Sault College and CSTEC held a kickoff meeting in late August, with the Co-chairs of Essar's Joint Training Committee. A meeting was held in September with the Executive of Local 2251 representing the hourly workers. Essar senior management informed area managers of the upcoming project and explained the benefits to the organization. The local union sent out packages containing flyers to be posted on departmental bulletin boards and the members of Essar's Joint Training Committee worked together and developed a submission for the Company's internal newsletter called "In the Know".

Sault College then looked within to find potential participants and the students in programs that would lead to apprenticeships were identified as a potential target group. Sault College, together with the CSTEC area coordinator, Gary Premo, attended all of the electrical, mechanical engineering and renewable energy classes describing the National Framework Project and described the benefits of increased performance in Essential Skills. In addition job profiles were distributed and discussed showing the relationship between each essential skill and what was required on the job.

The Aboriginal Apprenticeship Centre assisted with the awareness and promotion. The cook pre-apprenticeship students and the plumbing pre-apprenticeship students attended sessions discussing the benefits of Essential Skills to improve technical skills training, health and safety and community participation. A connection was made around the knowledge base of the "Elders" and how important it is to improve Essential Skills. The plumbing pre-apprenticeship promotion and awareness sessions were delivered on the Garden River reserve and the group was addressed by the Aboriginal Centre Project Coordinator, Academic Skills Upgrading Instructor, CSTEC and Sault College.

Essential Skills Interventions

Adult Education Principles

The interventions adhered to the five guiding principles by Malcolm Knowles. Three different interventions occurred in our project. The workers and college learners were all informed of the importance of developing a National Framework for Essential Skills. The presentations included a WIIFM (what's in it for me). Each group was made aware of why Essential Skills were important to them as individuals at work and home. An explanation was provided regarding location, available tools and methods of upgrading delivery.

Each intervention was adapted to the needs of the individual and the cohort. Essential Skills on Line (ESO) training was facilitated where required. The academic upgrading instructor used Essential Skills in her work with the students and TOWES measure-up Self assessments were printed off and worked on in class or at home. In addition, Skill Plan lesson plans were worked through in the classroom with students requesting additional work. The National Occupational Codes (NOC) were used for self-assessments and to connect Essential Skills to the workplace careers. The needs of each group were considered related to age, previous workplace and educational experiences. The adults already in the workplace were challenged in different ways, juggling work around classes, family life and the different stages of their careers. The Aboriginal plumbing pre-apprenticeship students were challenged by having additional work added to an already full workload. It was important to keep informing this group of the importance of Essential Skills in the workplace and at home. The connection was made around the knowledge base of the "Elders" and how important it was to increase your essential skill levels. The electrical, mechanical students and the cook pre-apprentices were facing a busy school workload and exams, but the importance of Essar, as the top manufacturer utilizing TOWES testing, was a major factor in buy-in.

Professional Practitioner Skills

The Professional Practitioner skills were a result of 20 years of working with employees of the Steel Manufacturers in Canada and training received from private training providers. The practitioner received training and instructor qualifications in behavior modeling, problem solving and decision making, adult education, course development and accelerated learning techniques.

Experience and Knowledge of Essential Skills specifically were the result of participation in two ES projects with socio-eco partners Evraz Steel and ESSAR Steel Algoma. The practitioner became a licensed TOWES Administrator at SIAST and was mentored with a Professional Essential Skills Practitioner during these projects. The Evraz project was similar to this ACCC project in that employees were pre-tested, given facilitated upgrade training and then a post tested to measure any movement. As a result of the project, we developed both a 40 hour instructor led Essential Skills upgrade course and a train-the-trainer course which was later used at Essar Steel Algoma.

A major focus of our interventions was the integration of Essential Skills for use at the workplace, in the home and in the community. Facilitated ESO training sessions was the intervention of choice and each learner was given a course workbook. We augmented the sessions with hardcopy information and practice documents gathered from Skill Plan course materials, TOWES, Measure-up and HRSDC. These documents were available both in the classroom and as take-away assignments.

Types of Interventions

The training interventions were modified to suit the needs and schedules of the three groups. A blended approach was offered to all three groups that consisted of on-line facilitated classroom training, class instruction and individual learning at home. For example, the Aboriginal plumbing pre-apprenticeship students attended an academic upgrading session where Essential Skills were reinforced in the day-to-day instruction in addition to 18 hours of facilitated online training. The upgrading instructor and the Aboriginal apprenticeship coordinator were in attendance to assist in the 18 hours of facilitated online training. The upgrading instructor reinforced how the training would help the students as they moved forward in learning the technical skills required and the Aboriginal apprenticeship coordinator explained how the training would allow the participants to make a larger contribution in the community. Essar Steel and the Sault College electrical and mechanical students were encouraged to attend the 24 hours of on-line facilitated sessions at Sault College in addition to doing tasks from Skill Plan at home.

Participants were also encouraged to receive additional help where needed and to focus on areas that required more work. ESO (Essential Skills Online) was used

as the training to tool to develop learner’s Essential Skills. Essar Steel participants discussed how the company requires Level 3 in Essential Skills to receive many internal promotion opportunities. Many of the Sault College students are looking for apprenticeships in industry and were encouraged to attain a Level 3 prior to applying for employment with the major manufacturers. The workers from Essar Steel and the Sault College electrical and mechanical students had to attend training on a voluntary basis in addition to their normal workloads. Classroom tasks included reviewing ESO training questions, and Measure-up activities from Skill Plan. Assessments were handed out and reviewed from Skill Plan to practice reading, Document Use and Numeracy.

Table 1- Summary of project findings

TOWES Testing	Workers	Technical Students
Pretest	29	55
Tested at Level 2	14	34
Participated in Interventions	12	23
Post Test	11	13
Moved from Level 2 to Level 3	5	6

As can be seen from Table 1, 84 workers and technical students were tested using TOWES. Fourteen workers and 34 students tested in at Level 2 and met the criteria for participation in the pilot project. A total of 35 workers and students engaged in the Essential Skills intervention for various amounts of training time. A total of 24 workers and students were tested following the intervention with 5 workers and 6 students moving from Level 2 to Level 3 in Document Use, Reading Text and Numeracy.

- Workers and college learners’ perceptions of training: Some of the participants had a difficult time accepting the results of the test scores and therefore felt that they did not have to apply themselves in the training. A great deal of time was spent reinforcing the importance of Essential Skills in learning new technical skills.

- Eighteen Aboriginal technical students participated in 18 hours of training in a group classroom situation. Six additional students who tested below Level 2 also participated in this same group training.

Transition Pathways to Employability

Two of the five transition pathways described in the National Framework document best describe the participants in this project: unemployed to employed and under-employed to better employed. The Essar workers are motivated by the need to acquire higher skills to gain promotions and improve productivity internally. The employer is looking to promote employees who are capable of taking on more responsibilities and have the capability of understanding new training. The 5 out of 14 workers who achieved Level 3 in the TOWES testing now feel more confident to accept new technical training and know they will be able to have the qualifications needed for promotion to supervision or other internal opportunities. The 6 technical students gained an understanding of the link between Essential Skills and technical skills. The needs of the workplace dictate that the skills of reading, Document Use and Numeracy are required to be successful in acquiring the new training required in their apprenticeships and to become an effective team member. The Sault College electrical and mechanical students are looking for employment in the technical field and many have a desire to be apprentices. A statement was made that the competition is to your left or your right. Employers are looking for something that distinguishes one resume from another, when the technical skills are identical. The connection has not been made yet to convince the students that how well or poorly they do is reflected in how successful they become.

Personal Reflection

Companies and workers in the workforce and students looking to enter the workforce do not have an awareness of the importance of Essential Skills in training, safety and productivity. There is a need for a full blown awareness project to accomplish what is required in Canada's workplace. Time must be taken to sit down with the Human Resources Managers and review the data on the current state of Essential Skills across Canada. The first question that must be answered is "why do I need this type of training in my company." The workers

feel that they are already well trained and competent in their jobs. The companies feel that by hiring applicants who have completed post-secondary education, training issues do not exist with the level of Essential Skills in their organization. Our project was originally started with one employer (Essar Steel). The pre and post testing was to be done online with facilitated online training (ESO) on company property with the company providing incentives to training. The commitment to the project wavered, however, when we could no longer have access to the computer rooms on company property to pretest or deliver computer based training. In any organization it is imperative to get commitment from the top before starting a project. What this means is that in a six level organization you get commitment from the CEO or a Vice President. Priorities are constantly changing and it is difficult to accomplish any major project without direction from the top. Although we tested a small number of technical students (55), it still points to the fact that major changes are required in our secondary school system. Students should be pre tested as part of the orientation process when attending post-secondary school. The upgrading component should be hardwired into the existing curriculum. This project provided a terrific opportunity to network with other practitioners and discuss best practices including awareness and promotion, types and duration of interventions and retention. Every effort should be used to develop best practices and implement them wherever possible.