



# **Communication Folio: TOWES Validation Studies**

**March, 2004**

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**For more information, please see *Criterion Related-Studies for the Psychometric Evaluation of TOWES.***

## 1.0 EXECUTIVE SUMMARY

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The Validation Study for the Psychometric Evaluation of TOWES was a study funded by Human Resources and Skills Development Canada (formally Human Resources Development Canada) evaluating the effectiveness of the Test of Workplace Essential Skills (TOWES) in predicting academic performance and workplace success. Fourteen partners from across Canada participated in the study; information was gathered from a wide selection of business, industry and educational stakeholders.

The TOWES Joint Venture team, Bow Valley College and SkillPlan, and a team of psychometricians, worked in conjunction with national partners to complete the research and subsequent analysis. Findings from the two-year study (2002 to 2003) are presented in this report.

### 1.1 Report Details Include:

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- Background on essential skills research and development
- TOWES: description and evaluation of Canada's leading essential skills assessment tool and related products
- Case study findings
- Implications for educators, employers, and sector councils
- Success stories: examples of essential skills assessment and training currently in use
- Feedback from study participants and TOWES customers

Canada is becoming increasingly dependent upon knowledge-based occupations to support economic and social growth. Our workers are not keeping up with this change; Statistics Canada suggests that over 40% of the Canadian workforce lack the necessary essential skills to function effectively in entry-level jobs.

TOWES was developed as part of the solution to this problem. By identifying essential skills deficiencies at an individual and industry wide level, training and policy interventions will lead to effective skills development and the creation of best practices. Results from the Validation Study of TOWES support further investment and development of essential skills work.

## 1.2 Study Highlights:

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At school, in the workplace, and in training programs, TOWES is an effective assessment tool for evaluating proficiency. Essential skills training increases productivity, safety and performance in the workplace, and improves success in the classroom. For individuals, educators, employers, and industry, the financial benefits of essential skills development are significant.

- ✓ TOWES is related to proficiency and can predict performance on a number of academic related measures. For example, TOWES can predict which individuals will perform better on scholastic tests, complete training programs, and succeed in program requirements
- ✓ TOWES provides information that is vital to the workplace. It can evaluate worker competence, predict job performance, and identify workers who are more likely to have safety related incidents
- ✓ TOWES and essential skills based training can boost effectiveness in training. Performance improvements occur when essential skills training is included in curriculum

“One key element that will help shape Canada’s social and economic prospects will be its capacity to ensure that it has enough skilled workers in the future. Specifically, Canada’s efforts will need to focus on providing on-going opportunities for workers to improve, upgrade and acquire new skills.”<sup>1</sup>

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<sup>1</sup> The Essential Skills and Workshop Literacy Initiative. Prepared in February 2003.

## **2.0 BACKGROUND**

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### **2.1 Statement of Need**

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Workers are the engines that drive a country's economic and social development. For Canadians to compete in the highly competitive global economy, the workforce must possess the skills to foster innovation and inspire growth. Our continued success on the international stage depends upon our ability as a nation to educate a workforce that is competent, literate and highly efficient. Across Canada, employers, educators, labour organizations and government are working together to ensure that Canadians have the essential skill competencies needed for higher skill, higher pay jobs. "To meet the challenges of the new economy, Canada's workers must have the opportunity to upgrade their skills, to improve their literacy, to learn on the job, to move into the path of lifelong learning."<sup>2</sup>

The need for TOWES comes from the workplace itself. Businesses have responded to the demands of the global economy, regulatory pressure and increased competition by adopting technology and modernizing business processes. This new economy requires higher levels of skills from its workforce, as well the ability to learn new ones. In response to national requests for an essential skills measurement tool, the TOWES Joint Venture, under the direction of Bow Valley College and SkillPlan, assembled a team of workplace educators and researchers, and commenced the development of TOWES.

### **2.2 Objective**

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The objective of this study was to evaluate how essential skills (assessment and training) was related to educational and workplace performance. Are essential skills an important predictor of training and workplace success? Does essential skills training improve performance and safety on the job? Answers to these, and related questions, lend valuable insight into the ongoing research into essential skills development.

Fourteen case studies were conducted in 2002 and 2003. The federally funded work was carried out by the TOWES Joint Venture, a team of psychometricians, and participants from a nationally selected group of educational institutions, workplaces, and members of industry sector councils.

Highlights from the research project are presented in this report. Individual case studies and statistical reports are presented in Appendix 1 and 2. Background information on essentials skills and previous national and international research is included for review.

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<sup>2</sup> Speech from the Throne. February 02, 2004

## 2.3 TOWES

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**T**OWES is an assessment tool that accurately measures workplace literacy skills using authentic workplace documents to mimic typical workplace tasks. Test-takers are required to assume the role of a worker who is assigned work or is required to complete a task. The test-taker must process information embedded in an authentic workplace document, such as a product label, flow chart or a schematic diagram, and use that information to complete the task or solve the problem. TOWES measures essential skills in 3 domains:

**Reading Text:** such as manuals, regulations, memos, safety codes

**Document Use:** such as diagrams, flow charts, forms, labels

**Numeracy:** solving problems using numbers embedded in workplace documents

Unlike traditional standardized tests that measure skills in relation to academic grade level equivalents, the TOWES test measures skills in relation to workplace requirements. In academic training, students are taught reading skills using literature, poetry and short stories – the kind of source materials foreign to the workplace. Workers read for a predetermined reason and use a variety of workplace documents as reference information in the completion of tasks in a safe and productive manner. Often literacy assessments use multiple-choice questions providing test writers 4 or 5 possible answers; workers don't have that luxury. To replicate the workplace, TOWES test takers complete forms, provide short answers or highlight information in a document. TOWES assesses how well academic knowledge is applied to the world of work.

## 2.4 Essential Skills

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**E**ssential skills are the skills that people use to carry out a wide variety of everyday life and work tasks. They are not the technical skills required for a particular occupation; rather they are the skills that are applied to function in *all* occupations. They are generic, transferable, enabling skills that help people perform the tasks necessary for success in their job. For example, general writing skills are needed in a broad range of occupations. Although the complexity and frequency of writing may differ, all workers must possess a basic level of literacy. In general, essential skills:

- Help individuals to perform the tasks required by their occupation and other activities of daily life.
- Provide individuals with foundations to learn other skills.
- Enhance people's ability to adapt to chance.
- Act as the Velcro to which other training sticks.

## **2.5 The Problem with Academic Based Assessments**

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The objective of formal schooling has always been to ensure that new generations develop the skills they require. Yet, the challenge of maintaining and improving the literacy skills of adults is an issue much broader than formal education. The International Adult Literacy Survey reveals that literacy skills can be lost if they are not used throughout life. Consequently, we should focus on the development of a culture committed to learning and to the creation of literacy-rich environments wherever people live and work. It suggests that investment in literacy is a long-term interest-bearing bond that pays substantial benefits for individuals, for employers and for nations.

Education based assessments are weak predictors of workplace based skills. Standardized academic tests do not adequately measure the skills required for work, rather they measure skills in context of academics and report results in grade level equivalents. Using academic tests creates a number of problems for employers, educators and workers. For example:

- Workers are being hired without an accurate evaluation of how well they are able to handle a job
- Academic based credentials are often not transferable from province to province
- Highly trained foreign individuals possess the skills but lack the credentials that they need to work in Canada
- Job site training and development is inefficient when employers are not able to assess workers' current skills
- Many qualified and highly-skilled workers do not have traditional academic training
- Many adults acquire skills through work experience after leaving formal education and have no mechanism to demonstrate these transferable skills

The search for solutions to this adult literacy challenge requires a concerted commitment by workers governments and communities.

In 1997, the TOWES team secured the first of a series of research grants and contract and commenced development on an innovation that would accurately measure an individual's workplace essential skills. The Test of Workplace Essential Skills (TOWES) was created in response to these needs.

## **2.6 Federal Government Research**

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Research conducted by Statistics Canada identified a significant gap between the overall essential skills level of Canadians and what is needed to function in society. Several studies have suggested that to actively participate in a knowledge-

based economy, individuals require a basic essential skill level (around level 3); a staggering 47% of the Canadian workforce possesses skills below this critical level.<sup>3</sup>

While the economy is increasingly dependent on knowledge-based occupations, assessment, education, training and upgrading have not kept pace with demand. Improving the essential skill levels of Canada's lowest skilled workers will translate into significant changes in national productivity and economic success. Investing in essential skills assessment and training for these members of the populations could create a permanent increase of 1.5% in individual GDP for life.

**B**ow Valley College and SkillPlan actively participate in a number of essential skills research initiatives. Involvement began in 1997 when the International Adult Literacy Survey (IALS), and the Essential Skills Research Project (ESRP) were commissioned by the Federal government. The TOWES test was created to respond to evolving methodology around essential skills, and the identified need for an essential skills assessment. Currently, TOWES is a national leader in assessment, research, products and services related to essential skills advancement.

### **International Adult Literacy Survey (IALS)**

**I**ALS examined residents of 33 countries to determine pan-global adult literacy levels. Literacy skills are ranked from **level 1** (poor literacy skills with difficulty functioning in any occupation), to **level 5** (command of higher-order information processing skills that are needed to function effectively in professional and other skilled occupations).

Individuals who score less than level 3 lacked the skills needed to transfer existing knowledge to changing environments.

### **Essential Skills Research Project (ESRP)**

**I**n 1995, Human Resources and Social Development (formally Human Resources Development Canada) embarked on a project to profile the essential skills requirements of over 180 occupations. HRSD established a process called Job Profiling, where the skills requirements and complexity of individual jobs could be rated using the 5-point scale developed by IALS.

Three thousand workers in front line occupations were interviewed about their daily work tasks. The professional job profilers who conducted these interviews evaluated the varying level of complexity associated with each occupation and the essential skills required to fulfill the job demands. These "essential" skills include reading text, document use, numeracy, continuous learning, working with others, writing, thinking

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<sup>3</sup> Based on the International Adult literacy Survey, 1997

skills, oral communication, and computer use. TOWES is an assessment of three of these skills – reading text, document use and numeracy. These 3 essential skills are also sometimes referred to as workplace literacy skills. While most people can read, the real question is whether their skills meet the challenge of living and working in today's information-rich and knowledge intensive society. Workplace literacy is more than the ability to read, write and calculate. It involves understanding and being able to use information to function effectively in diverse, unpredictable and challenging situations.

### **The Test of Workplace Essential Skills (TOWES)-A Comparable Measure**

For the first time there is an essential skills tool that that can be compared to national and international assessment tools. TOWES measures and reports results using the same 5-point scale as IALS and the ESRP National Job Profiles. An individual who scores at level 3 on the TOWES test is also measured at level 3 by ESRP and IALS. In other words, federal and international studies have created system for *ranking* essential skills; the TOWES project has created a process for *measuring* essential skills.

TOWES tests are paper and pen based and require up to 2 hours to complete. Each test contains 17 to 20 items in each of the 3 domains (Reading Text, Document Use, and Numeracy). Results are provided to each test taker; test administrators and employers receive both individual and group performance records. Results are presented using a 5-point scale used in the International Adult Literacy Survey and is based on national occupational standards developed as part of the Essential Skills Research Project.

TOWES is available across Canada and is delivered by a dealership network consisting of 33 Canadian Community Colleges. TOWES college partners provide test administration services and training, if required. TOWES provides extensive support services to its college-based distributors including the training of instructors. In this way, TOWES is able to provide high quality services to business, individuals, employees, and governments.

## 3.0 DETAILS OF THE RESEARCH PROJECT

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### 3.1 Psychometrics

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The research focused on the predictive power of TOWES in a series of studies that were carried out from (May 2002 – December 2003). These analyses were conducted to establish the extent that knowledge about an individual's performance on TOWES assists in predicting their performance in training and at work.

### 3.2 Research Sites

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The sites where data was collected were primarily of two types: occupational-oriented training sites and workplace oriented.

#### The occupational-oriented training sites were:

1. **Bow Valley College (Calgary, AB)**  
Practical Nurse Program
2. **Bow Valley College (Calgary, AB)**  
Office Administration Program
3. **Bow Valley College (Calgary, AB)**  
ESL Professionals Program
4. **Metro Community College (Edmonton, AB)**  
Pre-Employment, Pre-Apprenticeship and Pre-High School Programs
5. **Northern Alberta Institute of Technology (Edmonton, AB)**  
Construction Trade Apprenticeship Program
6. **Painters Apprenticeship (Vancouver, BC)**  
Painter Apprenticeship Program
7. **Preparatory Training Program (Toronto, ON)**  
Employment Readiness Programs
8. **Saskatchewan Institute of Applied Science and Technology (Regina, SK)**  
Employment Readiness Training Programs
9. **Vancouver Community College (Vancouver, BC)**  
ESL Basic Skills
10. **Douglas College (Vancouver, BC)**  
Private Security Training Program

**The workplace-oriented sites were:**

1. **Halifax Employer Association (HEA) (Halifax, NS)**  
Longshore Workers
2. **International Brotherhood of Electrical Workers (IBEW) (Toronto, ON)** Electrician Apprentices
3. **Suncor (Ft. McMurray, AB)**  
Heavy Equipment Operators
4. **Canadian Petroleum Products Institute-Western Distribution Task Force (Alberta)**  
Petroleum Professional Drivers

The data came from a wide variety of settings. The outcome measures varied from site to site, and are explained in detail in the individual site reports attached in Appendix 1 and 2.

## **4.0 STUDY FINDINGS**

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### **4.1 Education and Job-Related Training**

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- ✓ TOWES assesses proficiency in relation to workplace essential skills
- ✓ Individuals who performed well on one area of the TOWES test, generally scored well on all areas of the TOWES test
- ✓ Education often predicted performance on TOWES; individuals with more education achieved better results on TOWES
- ✓ Performance on TOWES was related to performance in classroom training. Those with higher TOWES scores usually performed better on course examinations and other program assessments
- ✓ TOWES was often able to predict program completion; those with higher TOWES scores were more likely to complete their program. Conversely, those with lower TOWES scores were more likely to drop out of their program
- ✓ Assessment related interventions (i.e. special essential skills training based on TOWES scores), improved student performance. Individuals who received essential skills training performed significantly better than individuals who did not receive additional training

### **4.2 TOWES and Other Assessments**

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- ✓ TOWES scores were often related to scores on other assessment related tools; individuals who scored well on TOWES were likely to score well on other aptitude assessments. However,
- ✓ TOWES measures different areas of proficiency than most of the assessments evaluated in this study
- ✓ TOWES often predicts scholastic performance more accurately than existing assessments

### **4.3 Special Populations (Immigrants & Visible Minorities)**

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- ✓ Immigrants tended to score lower on the TOWES test than non-immigrants
- ✓ The length of time an immigrant had been in Canada affected their TOWES results; the longer an immigrant had been in Canada, the better they did on the TOWES test
- ✓ Visible minority status was related to performance on TOWES; individuals who identified themselves as visible minorities, scored lower on TOWES

#### **4.4 Gender**

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- ✓ Gender of the test-taker does not impact TOWES scores.

#### **4.5 Workplace**

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- ✓ TOWES scores often provided an indication of an individual's job performance; individuals were more likely to be working if they scored higher on TOWES
- ✓ Employees were more likely to perform better on workplace assessments (i.e. industry specific certification exams) as their scores on TOWES increased
- ✓ Safety was predicted by TOWES; individuals who scored higher on the TOWES test were less likely to have a safety related incident on the job
- ✓ Individuals who scored higher on TOWES were more likely to be employed than those who scored lower on TOWES

## 5.0 TOWES: PRACTICAL APPLICATIONS FOR EDUCATION

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### 5.1 Education and Training

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Essential skills assessment and training is a powerful tool in the education of Canadian workers.

Learners are becoming more sophisticated in their training and education choices. They are looking for programs that will provide them with concrete skills for the workplace, and enable them to get a job.

Educators are facing mounting pressure from industry to graduate students who have the skills they need to function in the workplace. Traditional assessments and curriculum do not always provide the proficiency that employers demand. Essential skills education allows teachers to provide a broad range of workplace skills that are transferable, applicable, and highly relevant. Student with essential skills training have the skill basis they need to grow and learn in their job.

Incorporating essential skills assessment and training into the education system will provide learners, educators, and employers with the collection skills needed to function effectively in our information rich and technologically advanced job market.

### 5.2 TOWES & Essential Skills in Education and Training

- ✓ Learners are able to determine their current skill levels, and identify areas that they need to improve
- ✓ Learners establish a basic workplace skill level that is transferable and relevant to real workplace setting
- ✓ Learners with essential skills have a solid foundation to learn new skills; they are better prepared to adapt to change, and improve productivity and performance
- ✓ Career counsellors can assist individuals in selecting jobs that are suited to their skill levels
- ✓ Educators can pinpoint areas of strength and weakness and develop focused intervention strategies
- ✓ TOWES provides educators a basis for certifying students' levels of competence; this information can be used in 'school-to-work' transition programs
- ✓ Individuals who lack formal education, but have strong workplace skills, can receive an alternative credential to the GED

## 6.0 THE BUSINESS CASE FOR ESSENTIAL SKILLS ASSESSMENT & TRAINING

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### 6.1 Example: Northern Alberta Institute of Technology (NAIT)

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The effectiveness of essential skills assessment and training is successfully demonstrated by the research conducted at NAIT. Based on the case study finding, NAIT implemented remedial essential skills upgrading with two groups of apprentices in their first year of the Construction Trade Apprenticeship program.

Initial findings suggested that some students in the program lacked the necessary skills to effectively manage the course work and subsequent program examinations. On the TOWES test, apprentices scored an average of 67% on Reading Text, 63% on Document Use, and 63% on Numeracy. Results of the study also determined that performance on course, and provincial exams, was related to performance on TOWES.

NAIT introduced essential skills training with two of the five groups of apprentices enrolled in the program in 2002/2003. Apprentices were assessed using TOWES early in the program. At-risk students were identified and provided 32 hours of essential skills training. The results are presented below.

- Five groups of apprentices (171 individuals) were enrolled in the Construction Trade Apprenticeship program in 2002/2003.
- Each group was enrolled in their program for 8 weeks and were tested by NAIT upon completion of the course
- In addition to the NAIT exams, students were required to take provincial first year examinations after completing the course

Group	Number of Participants	Carpentry Success Rates (2002 – 2003)						
		Results						
		Pass	%	Fail	%	Other *	%	Province Exams
1	29	22	75.9	2	6.9	10	34.5	76%
2	42	30	71.4	1	2.4	11	26.2	73%
3	27	26	96.3	0	0	1	3.7	81%
4	29	29	100	0	0	0	0	81%
5	44	27	61.4	11	25	6	22.2	71%
Total	171	134	78.4	14	8.2	28	16.4	76.4%

Essential Skills Training

\* The 'Other' column represents apprentices who withdrew from the program, received a conditional pass, or needed to complete supplemental course work because of poor performance.

### 6.2 When essential skills training was provided:

- ✓ More students passed the course
- ✓ Few students failed the course
- ✓ Marks on provincial exams increased

The NAIT example demonstrates the link between essential skills assessment and training to succeed in education programs. The economic and social costs associated with poor performance in the program are substantial. When tuition costs, Alberta Learning costs, and Employment Insurance costs are factored into the analysis, the economic impact of poor performance is substantial. In the NAIT study, 42 out of 171 participants were not able to successfully complete the program. The following breakdown demonstrates the financial costs associated with these individuals.

### 6.3 Financial Costs Associated with the Unsuccessful NAIT Students

- \$132,300 = Total Tuition Spent (\$2,500 Alberta Learning Contribution + \$650 Student Contribution x 42 Students)
- \$134,400 = Total Living Expenses (\$400 EI per week x 8 weeks x 42 students)
- \$266,700 = Total Cost for 42 unsuccessful program participants**

## 6.4 Summary

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The NAIT example demonstrates the power of TOWES and essential skills training. When incorporated into learning and training, TOWES can improve performance, save valuable financial resources, increase learner success, and prepare future workers for a productive and safe career.

## 7.0 TOWES: PRACTICAL APPLICATIONS FOR WORK

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Labour shortages, skill deficiencies, and rapidly changing technology are creating new problems for Canadian employers. Recruiting workers who will contribute to a safe and productive workforce is more difficult as technologies change and the jobsite becomes more complex. Workers are willing to acquire new skills but lack the foundation for improving their knowledge. In addition, the pool of qualified workers is declining due to changing Canadian labour force demographics.

In order for businesses to compete effectively, investments in skill training and development are critical. Employers must recognize the economic and social value of essential skills training for their employees.

*Canadian businesses lose \$2.5 billion annually in lost productivity due to illiteracy*

*~Canadian Business Task Force on Literacy*

### 7.1 TOWES & Essential Skills in the Workplace

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- ✓ Employers can identify and develop workers for a wide range of occupations
- ✓ Employers can utilize essential skills knowledge to improve safety, productivity and performance in the workplace
- ✓ Employers can assess job applicant skill, and use this information in the hiring process
- ✓ Employers can determine a candidate's skill level in comparison with HRDC's national occupational standards
- ✓ Employers can use TOWES as an alternative credential to a Grade 12 Diploma
- ✓ Employers can obtain customized assessments that will evaluate employees on situations specific to the organization
- ✓ Employers can use overall results for macro analysis of their workforce
- ✓ Employers have access to a tool that has been nationally and internationally tested, and is recognized across the country
- ✓ Employers have access to a significant body of support material and services
- ✓ Employers can use essential skills assessment and training in workplace transition and adjustment programs related to rapid changes in technology and work processes, together with plant closures and down-sizing
- ✓ Employers can use TOWES as a tool in employment equity programs

## 7.2 Example: TOWES at Suncor Energy & Keyano College

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The Keyano College project demonstrates the success of the TOWES business model. This project involved securing the local college to provide test administration services to business customers. This sample model is currently being developed with Aurora College and Diavik Diamond Mines in the North West Territories, and with Voisey's Bay Nickel and the College of the Canadian Rockies.

Suncor Energy Inc., located in Fort McMurray Alberta, contracted Keyano College to provide assessment and screening services for the recruitment of front line workers. Suncor requires workers who are capable of performing their current job duties and have the skills, knowledge, and motivation to progress into other jobs and occupations within the company. In order to acquire qualified workers, Suncor needed a structured and reliable assessment, recruitment and training process in place. Suncor and Keyano brought in the TOWES consulting team to conduct on-site research at Suncor's mine and to develop four essential skills profiles for four front line occupations, and to create four custom designed versions of the TOWES test. Keyano currently uses TOWES as part of the process to determine if prospective employees have the skills required for employment at the Suncor mine.

Suncor and Keyano also worked in partnership to develop a new training program aimed at providing another source of entry-level workers for the company. Suncor provided the required investment and input into the program development with Keyano College to create the Mine Operations Program. Students that participate in this program develop a broad foundation of technical skills in equipment fundamentals, maintenance, and operation, and gain reliable knowledge in the areas of safety and plant orientation, essential/employability skills, computer literacy, business literacy, oil sands mining and processing operations, and working in a shift work environment. Prior to being accepted into the Mine Operations Program, potential students must undergo an extensive interview and differentiated aptitude-testing process. Once accepted, students receive 10 months of intensive training, including 2 months of job shadowing at Suncor. Prior to the completion of their program, students must pass the same custom version of TOWES as other prospective employees. By using TOWES as a common assessment tool, Suncor is assured that students graduating from the Mine Operations Program will have the skills needed to function at a high level within the organization.

Dwight Jensen, Coordinator of the Institute for Business Development at Keyano College says, "The use of an assessment tool that tests skills in a real life context is important for an employer like Suncor. There is secure, long-term employment available if Fort McMurray for those who have the required skills. TOWES is the best tool available to assess these essential skills. To date, we have tested more than 1200 prospective heavy equipment operators, many of whom have become safe and productive workers at Suncor's mine. In addition to the Miner Operators Program,

we have developed essential skills preparation courses for those who are not successful in passing the TOWES test. These continuing education programs provide another opportunity for individuals to upgrade their skills.”

Leah Von Hagen, Manger of Workforce Development for Diavik Diamond Mines in Yellowknife NWT offers another perspective. “Diavik Diamond Mines is committed to providing employment of northern and Aboriginal people. Based on the profiling work and test development that the TOWES Joint Venture has completed for us, we clearly know the essential skills required for entry-level positions at our mine site. Our plan is to provide essential skills training on-site to ensure that our workforce develops these skills, and develop a partnership with Aurora College to provide this type of training for our workers while they are off shift at home in their local communities. We support the very practical nature of the assessment and the preparation course, and see it as a method of fast tracking skills acquisition.”

## 8.0 TOWES: PRACTICAL APPLICATIONS FOR INDUSTRY

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### 8.1 Sector Councils

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In February 2004, the Prime Minister recognized the importance of essential skills training within the sector council framework. “In the new economy, education comes in many forms. (Union training centres) are an essential part of our education system...we intend to work with unions on their training sites, with business in the workplace, and through sector councils – to develop a new Workplace Skills Strategy, boosting literacy and other essential job skills for apprentices and workers.”

Sector Councils and industry wide boards are leaders in the establishment of best practices and industry wide standards. They recognize the productivity and economic gains that result from a collaborative approach to industry development; they champion improvement and growth on a national level.

### 8.2 TOWES & Essential Skills in Industry

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- ✓ TOWES results can be used to assess worker’s skill levels on an industry wide scale
- ✓ TOWES provides a comparable, transferable, industry wide credential
- ✓ National results can be utilized for macro level comparisons and;
- ✓ Results compared with proficiency levels of workers in other countries
- ✓ TOWES provides valuable data for industry wide policy development
- ✓ Essential skills training provides a foundation for industry wide best practices model development
- ✓ TOWES assessments can predict workplace safety, and;
- ✓ Essential skills training can reduce the number of safety related incidents
- ✓ TOWES tests can be used as a prior to hire credential that is recognized across the industry
- ✓ Investment in essential skills training during training and apprenticeship programs can increase completion rates, improve performance, and save financial and human resources
- ✓ TOWES is a valuable tool in the assessment and training of employment equity participants
- ✓ Essential skills training and upgrading in the workplace can increase productivity and improve overall performance.
- ✓ Macro level information provided by TOWES is a beneficial component in the creation of industry wide best practice

### 8.3 Developing National Standards

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An essential skills assessment tool may be used to set standards and specify competence. It allows companies to assess workforce skills and make comparisons with other groups of workers.

“A primary source of productivity for industry sectors lied in the skills and knowledge of employees. The investment we make in developing essential skills are critical to competitive success, growth and wealth creation. This will enable Canadians to crystallize new ideas and approaches, and reveal their creativity and talents to the world.”<sup>4</sup>

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<sup>4</sup> The Essential Skills and Workshop Literacy Initiative. Prepared in February 2003.

## **9.0 TOWES PRODUCT LINE**

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**T**OWES is much more than a test; it is a tool for assessing, educating and supporting the workforce. On a micro level, TOWES assesses individual proficiency and improves training and workplace success. TOWES provides the foundation for the development of a productive, skilled, safe and efficient worker. On a macro level, TOWES is a model and instrument for establishing best practices and enhancing effectiveness.

### **9.1 Assessment Materials**

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- TOWES Test: G1, G2, G3 (broadly based tests that are applicable to over 150 occupations. Results can be compared to national standard)
- Custom TOWES Tests (Developed for a specific organization or industry)
- Free Informal Assessment on TOWES Website

### **9.2 Resources**

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- Building Workplace Essential Skills Curriculum
- Teaching Workplace Essential Skills
- Building Workplace Essential Skills Online
- TOWES How do your skills Measure Up? Website (a resource for teachers, adult educators, career counselors, employment trainers, etc.)
- Numeracy at Work, Writing at Work and other publications listed at [www.skillplan.ca](http://www.skillplan.ca).

### **9.3 Consulting and Research Services**

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- Custom Test Development
- Consulting
- National & International Research Design

## 10.0 CONCLUSION

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TOWES research confirms the importance of essential skills in education, work, and industry.

TOWES predicts performance. Educators and Trainers can benefit from an increased awareness of workplace related essential skills assessment and training tools. Doing so improves the training provided to students.

Human resource professionals and industry organizations need to focus on the development and growth of workplace essential skills if they are to compete successfully in the knowledge based economy. Skill and labour shortages will become progressively more problematic as the workforce ages and rapid technological advances continue. By investing in essential skills training, employers will improve the skills of their existing workforce and gain access to non-traditional labour pools.

***“The goal should be to make essential skills a critical element of the national and institutional Human Resource policy environment by sharing best practices and expanding the utilization of existing resources among industry, learning systems and labour.”<sup>5</sup>***

Additional research is needed to establish best practices, and create models for incorporating essential skills training and assessment into education and work. Although educators, employers and industry are beginning to recognize the importance of essential skills, they lack the resources and ‘know how’ to incorporate essential skills into their organization. In addition to the assessments, products and services provided by TOWES, a national centre of excellence for workplace essential skills would assist in the establishment of best practices and the development of related materials.

TOWES is well positioned to become the national leader in essential skills testing and training. For the last several years, the TOWES joint venture has recognized the need for essential skills training, and has witnessed the growth in demand for assessment and support materials. Through a network of 33 national distributors, TOWES will continue to support, and participate in, research and development of essential skills best practices. For all stakeholders in essential skills, there is value in having a ‘made in Canada’ assessment tool widely available through a network of colleges and technical institutes with literally hundreds of campuses.

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<sup>5</sup> Report on the Roundtable on Essential Skills and Workplace Literacy. March 25, 2003.