



The effectiveness of Essential Skills approaches in improving completion rates of first year apprentices was demonstrated through two research projects conducted by the Northern Alberta Institute of Technology (NAIT).

The first study took place in 2002/2003 and included a total of 154 first year carpentry apprentices. A second study in 2003/2004 involved 27 first year apprentices.



2002/2003 Research Study & Results

The first research project (2002/2003) involved 154 first year carpentry apprentices. They were enrolled in the eight week technical training program and wrote the required provincial first year examinations. Of this group, 56 apprentices (groups 3 & 4) wrote TOWES - the Test of Workplace Essential Skills to identify Essential Skills gaps in the areas of reading text, document use and numeracy. Apprentices with identified gaps participated in 20 hours of Essential Skills tutoring in addition to their regular programming. The other 98 apprentices (groups 1, 2 and 5) completed regular programming and were not offered TOWES testing or additional tutoring. Results from the study show that:

- 98% of the apprentices who received Essential Skills training successfully completed first year technical training. In comparison, the average completion rate was 68% for apprentices who did not receive Essential Skills training.
- The average mark on provincial exams for apprentices who received Essential Skills training was 81%. The average mark for apprentices who did not receive Essential Skills training was 73%.

Carpentry Completion Rates 2002-2003 Field Study

Group	Class Size	Average Completions	Average Provincial Exam Result
1	29	76%	75%
2	42	71%	73%
3	27	96%	81%
4	29	100%	81%
5	27	61%	71%
Total	154	81%	76%

■ Apprentices in Groups 3 & 4 wrote TOWES and participated in 20 hours of Essential Skills Training

“Essential Skills are so often overlooked as a factor to success. TOWES has given us the ability to greatly enhance the success of our students.”

Alan Habetoff

Red Seal J/M Carpenter, B.Ed.
Chair, Building Trades Programs
School of Applied Building Science, NAIT

2003/2004 Research Study & Results

In this phase of the project, 27 first year apprentices who achieved low TOWES test results were offered 20 hours of additional training, similar to the programming delivered in the 2003/2004 research study. Of this group, 10 of the 27 apprentices volunteered to take the 20 hour program with the remaining 17 apprentices opting out. Results from the study show that:

- 100% of apprentices who volunteered for the additional 20 hours of tutoring received credits and moved on to 2nd year studies. Only 53% of those who opted out received credit.
- The average mark on the provincial exam was 77% for apprentices who volunteered for Essential Skills training. The average mark for apprentices who did not receive Essential Skills training was 65%.

Carpentry Completion Rates 2003-2004 Field Study

Group	Class Size	Average Completions	Average Provincial Exam Result
Remedial Training	10	100%	77%
No Remedial Training	17	53%	65%
Total	27	77%	71%

What The Results Demonstrate...

- ✓ Essential Skills in reading text, document use and numeracy are critical success factors for first year apprenticeship students.
- ✓ The use of TOWES is an effective way to identify apprentices at risk of failure.
- ✓ Short, focused interventions like those provided by NAIT can significantly increase completion rates and improve test results on provincial examinations.
- ✓ Significant costs savings to employers, apprentices and governments could be realized by using Essential Skills approaches in other trades.

