Connecting to Workplaces:
Validating Outcomes Demonstrations with Employers

Learning Works!

Forestry Worker Demonstration
LBS Level 3

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Meeting Employers' and Employees' Needs

...Now and in the Future

Literacy Network Northeast

Far Northeast Training Board (FNETB)

Acknowledgements

Demonstration Activity:

In this demonstration the learner completes three tasks he or she might be required to perform on the job.

The learner

    Reads and interprets an accident report

    Calculates the number of trees per hectare that must be left standing in a given management unit

    Reads an accident scenario and fills out a report

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All demonstrations can be found on the following websites:

http://demonstrations.alphaplus.ca/DemonstrationBank/@

or

http://www.nt.net/literacy@

We would like to acknowledge the employer that helped make this project a success.

    The Wilderness Group, Wawa

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Essential Core Skills Chart

Forestry Worker Profile

Participating employers ranked these essential skills in order of importance. This order may change according to each individual company or employer. The Connecting to Workplaces Project focused on the identified top five skills. Take note that what is of importance to employers may extend beyond the skills, abilities or knowledge LBS programs can provide and may require partnering with other programs.

Essential Core Skills Chart

	HRSDC Essential Skills	Most Important				Important
Most Important	Time Management	Being on time	Taking initiative	Work with minimal supervision	Follow policies, procedures	Be safety conscious
	Math Skills	Problem solve	Use measurement tools	Do calculations for piece work	Measure diameter, distance	Log and track numbers
	Additional Skills	Listen, understand information	Be alert, conscious at all times	Know First Aid, CPR, WHMIS	Read maps*	Be a team player
	Reading Skills	Read health & safety manuals	Read notes, messages, notices	Read/follow instructions, directions	Read policies, regulations	Read/locate information on a computer
Important	Writing Skills	Complete forms	Write safety incident reports	Work with technology	Log entries	Keep records

☐ Within LBS mandated reading, writing and numeracy skills
☐ Within LBS mandated speaking and listening skills
☐ Within LBS mandated problem-solving teamwork, critical thinking
☐ Outside of LBS mandate, but possible with partnership

* i.e. topical , G.P.S., aerial maps

"Forestry Worker" profile continues on next page.

Forestry Worker Profile (continued)

More Workplace Information Collected from Participating Employers

Methods most often used to train employees:

(In order of importance)

1. Job Shadowing
2. Video
3. Computer Based
4. Audio
5. Instructional Sessions

Requirements most employers look for:

1. Clean Driving Record
2. Grade 12
3. First Aid
4. WHMIS
5. AZ License
6. Experience

Courses employers most often provide to employees:

1. WHMIS
2. First Aid
3. CPR
4. Other — TDG-5100 Fire Fighting, Extinguishers, Spill Kits, Brush Saw, Chain Saw, general familiarization with machinery

Number of employers who stated they would hire applicants who do not have a grade 12 equivalent:

Yes — 6 employers   No — 1 employer due to corporate policy

Number of employers who would consider applicants who could demonstrate or submit their demonstration results:

Yes — 6 employers   No — 1 employer due to corporate policy

Employers also base their hiring decisions on:

Experience, drive, previous employment, personality traits, references

Assessment Preamble

More about pre-demonstration training and assessment:

Assessing a learner's performance in accordance with expectations in a real-world place of employment is more complicated than assessing the learner's work for academic purposes where 6 out of 10 is a pass. How do instructors determine what constitutes a pass for demonstrations of employment-related activities and skills? How do they know where to draw the line between what is good enough in a particular job and what is not? There is no simple answer. Instead, the answer lies in the relative importance placed by each individual employer on the overall significance of various tasks and duties in pursuit of desired company objectives. It is not something that others outside the company are necessarily aware of. Until more of that information is available, instructors may need to rely on their own good common sense in helping learners determine an appropriate level of performance for employment-related activities.

Assessment of workforce demonstrations is also challenging for instructors because of inconsistencies across employment sectors. What is acceptable in one workplace setting may not be acceptable in another. What is high on the priority list in one setting may not factor in much at all in another. Even within same industries, specific expectations and required levels of performance will not be consistent location to location. For that reason, the assessment of end-of-training or employment-readiness demonstrations should be less concerned with measuring discreet elements of separate learning outcomes and more interested in recognizing the learner's overall successful accomplishment of each integrated employment-related task.

Success in the workforce involves not only understanding and being able to meet the particular demands of the job but also being aware of and avoiding serious mistakes that could put the job in jeopardy. For that reason, an important aspect of pre-demonstration training should involve helping the learner: 1) recognize relative levels of importance associated with different job duties and tasks, 2) become aware of the level and quality of performance that is expected, and 3) anticipate possible outcomes or repercussions for different kinds of mistakes.

Discuss, or research and discuss, the role each skill plays and its relative importance in the overall success of day-to-day work. Identify mistakes that might constitute a fireable offence. Take these discussions into account when you assess the learner's performance on this demonstration.[1]

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1. Jane Barber, *Connecting to Workplaces: Validating Outcomes Demonstrations with Employers,* Chambermaid/ Housekeeping Cleaner Demonstration, 2005

Notes for the Instructor

Employment goal: Forestry Worker

Employers have said that a number of skills are essential to employees in the forestry industry. The outcomes from this demonstration should indicate that the learner has some competency in the following essential skill areas:

▶ Taking initiative and working with minimal supervision

▶ Problem solving in math

▶ Reading health and safety manuals

▶ Reading notes, messages, notices

▶ Reading policies, regulations

▶ Completing forms

▶ Writing reports

Preparation for this demonstration

The learner should be working at level 3. To prepare him/her to complete this demonstration successfully, the learner should have had practice:

▶ Using authentic documents
  Ψ completing forms
  Ψ reading manuals
  Ψ reading notices

▶ Solving word problems in math

In his/her self-management, the learner should be able to:

▶ Take initiative

▶ Work with minimal supervision

Assessment

The learner's performance on this demonstration is assessed by both the instructor and the learner.

What constitutes a successful demonstration?

On the instructor's assessment tool, the learner must have **at least** 10 performance indicators completed and the other 4 mostly complete.

Instructions for Delivering this Demonstration

► This demonstration is divided into three parts. Have the learner read each part to make sure that he or she understands the scenarios and instructions.

► Review the assessment criteria with the learner by going over both the instructor's assessment tool and the learner's.

► Ask if the learner has any questions. Encourage the learner to work on the demonstration without aid. However, if he or she gets stuck assure the learner that you will help.

► The demonstration should be completed in one to two hours.

Note: If the learner has much difficulty navigating the demonstration without your help, it could be that he or she is not yet ready for the activities. The learner's sense of his or her readiness and competency will be reflected in the learner's assessment tool.

Materials to provide:

Pen, paper, calculator (optional)

Learning Outcomes

Please refer to the next page, **Level Descriptions and Outcomes for this Demonstration,** to determine the learning outcomes.

Level Descriptions and Outcomes for Demonstration

Read with understanding for various purposes	Write clearly to express ideas	Use number sense and computation	Self-management Self-direction
Skims to understand types of text; scans to find specific information Uses various conventions of formal texts to locate and interpret information Text is within the interest of the reader with personal and/or general relevance Identifies the main idea and supporting details Follows written instructions Makes inferences	Completes more complex forms requiring non-personal information Writes short reports or summaries to present factual information, opinions, and experiences Shows awareness of audience's needs Uses appropriate levels of language	Uses multiplication and division facts and concepts to solve simple, real-life word problems (level 2*) Determines the value of a missing factor in an equation involving multiplication	Takes initiative Works with minimal supervision

* The word problems in Part Two, numbers 4 and 5, are more advanced than level 2, although more complex word problems are not part of the level 3 description. Your learner may need help in setting up these problems.

Demonstration Scenario and Part One

Learner Name: _____   Date: _____

You work for the Northeastern Logging Company. Each morning when you arrive at work you clock in at the time clock and check the notice board. This morning you see a new **Near Miss Report.** When these reports are posted on the notice board, workers are required to read them and sign the bottom of the report to show that they have read and understood the report.

Part One

Read the attached **Near Miss Report** and answer the following questions on the paper provided you.

1. This report is divided into three sections under three headings. What are the three headings?
2. Under which heading would you expect to find a description of the accident?
3. Where would you expect to discover the cause of this accident?
4. What suggestions does the report make to insure that this kind of accident is prevented in the future?
5. Do you think that it is important to know that this accident happened to "an experienced cut and skid team" or would the story have been just as instructive without this information? Give reasons for your answer.

Near Miss Report

Failure to Properly Secure Parked Skidder on Incline

What Happened?

An experienced cut and skid team were preparing to cable skid several trees that lay on a moderate slope. Ground conditions were dry. The skidder operator backed down the slope and brought the skidder as close as possible to the trees to be winched. The ground was uneven where the skidder stopped with mounds and hollows on the slope surface. The skidder operator lowered the blade until the left corner of the blade contacted the ground on the high side. He dismounted from the skidder on the right side as the cutter moved to the back of the skidder to begin pulling out the mainline. Just as the operator dismounted, the skidder began to roll backwards. He yelled a warning to the cutter as he attempted to remount the skidder. He lost his footing and fell to the ground. The skidder continued to roll and the operator was dragged under the front right wheel at such an angle that the tire ran over his entire body. He suffered severe multiple injuries.

How Did This Happen?

Investigators were not able to determine with certainty whether or not the parking brake was applied. If the parking brake was applied, it was either defective or out of adjustment. There are other important safety factors relating to parking a skidder on an incline as well as dealing with an unmanned moving machine in examining this accident. First, because of the uneven terrain, the lowered blade was not able to make contact with the ground to such a degree that it would effectively aid in holding the skidder. The blade, which acts as a secondary block to the parking brake should have been firmly applied to the ground with sufficient pressure to assist in holding the skidder. Secondly, when the skidder started to roll, the operator who had just dismounted and realizing that his partner was in danger, tried to enter the moving skidder. He slipped and fell under the front wheel as the skidder rolled down the incline. The partner was not injured.

Prevention

All workers must receive training, post-training evaluation and follow-up supervision in all aspects of safety training for the work they perform including proper stopping and parking procedures for heavy mobile machines.

Place decals and signs in the cab warning operators to check that the parking brake is in proper working order (start-up check) and applied whenever leaving the cab.

Never attempt to mount a moving skidder.

Use of the blade as a secondary method of securing the machine should be promoted but not depended upon exclusively.

http://www.ofswa.on.ca/nearlis.html

Part Two

In order to answer these questions you will need to know the meaning of two terms that might be new to you.

► **Management Units** are responsible for forested areas in their regions.

► **Leave Trees** are trees left standing after logging for wildlife and natural disturbance.

You and your co-workers are getting ready to log in a new area. **Different Management Units** require that logging companies leave a certain size and number of trees standing per logged hectare of land. The number of leave trees varies among management units.

Look at the table below and answer the following questions.

1. What are the names of the Management Units?

2. How many large size cavity trees does Nighthawk Forest leave standing per hectare?

3. How many trees greater than 3m tall does Iroquois Falls Forest leave standing per hectare?

4. You are logging in Porcupine Boreal Forest. Twelve hectares of land have been logged. In those twelve hectares the team has left 237 trees standing. 84 of these leave trees are large size cavity trees. One of your co-workers thinks that there has been a mistake made in the number of leave trees. Another worker thinks everything is okay. What do you think? How will you prove your answer?

5. You and your team have 38 hectares left to log. Calculate the number of leave trees that will be left standing when you finish. Correct the error made by the other team and be sure to include these leave trees in your calculations. How many large size cavity trees will you leave? How many trees greater than 3m?

Management Unit:	Nighthawk Forest	Iroquois Falls Forest	Porcupine Boreal
Number of large size cavity trees	6 well-spaced trees per hectare representative of stand	Not required	7 well-spaced trees per hectare representative of stand
Number of trees greater than 3m tall	19 trees per hectare representative of stand	6 trees per hectare representative of stand	17 trees per hectare representative of stand
Total number of leave trees	25 trees per hectare	6 trees per hectare	24 trees per hectare

Part Three

The rest of your team has moved on to the next section to be logged. You and the skidder operator, Joe Rodrigue, are out of sight of the other workers. Joe hops onto the skidder and puts it in gear, preparing to follow the team. You notice a large patch of oil just behind the skidder. You wave to Joe who demands to know the problem. You point toward the back of the skidder and he jumps down to see. The skidder appears to be leaking oil heavily. He returns to the skidder and shuts down the engine. The oil stops leaking almost right away. Joe's first language is not English, he is agitated, and he wants you to help him follow correct procedures and fill out the necessary form. You look through the environmental safety manual and arrive at **Spill Reporting Requirements,** which is reproduced for you on the next page.

1. You ask Joe how much oil the skidder has probably lost. He checks the oil and thinks that the amount is somewhere between 5 and 7 litres. If the skidder has actually lost 7 litres, what do you do?

2. Help Joe fill out the **Environmental Incident Report** on the page following **Spill Reporting Requirements.** When you ask him why there has been an oil spill, he says that the skidder is very old and has been repaired many times. He does not know any other cause for the spill. Use today's date for the form.

Spill Reporting Requirements Information

1. **Stop equipment causing spill**

2. **Stop spill at source**

3. **Contain Spill**

4. **Report to emergency representative**

Report *Immediately*

All spills (any amount) into waterbody

Battery acid or used cleaning solvent >5L

Fuel, oil, hydraulic fluid, antifreeze, grease and cleaning solvent >50L

Report within 24 Hours

Any battery acid or used cleaning solvent <5L

Fuel, oil, hydraulic fluid, antifreeze, grease and cleaning solvent between 5L and 50L

Environmental Incident Report

<h3 style="text-align:center">Northeastern Logging Company</h3>

Management Unit:	
Type of incident: Public Concern ☐ Quality Issue ☐ Safety Issue ☐ Spill ☐	
Name:	
Date of occurrence:	
Description or cause of incident:	
Spill Reporting Requirements met? ☐ Yes ☐ No	
Signature:	
Signature of witness:	

Instructor's Evaluation

Level 3 Performance Indicators	Beginning	Mostly	Complete
Communication			
• Skims to understand types of text; scans to find specific information			
• Uses various conventions of formal texts to locate and interpret information			
• Text is within the interest of the reader with personal and/ or general relevance			
• Identifies the main idea and supporting details			
• Follows written instructions			
• Makes inferences			
• Completes more complex forms requiring non-personal information			
• Writes short reports or summaries to present factual information, opinions, and experiences			
• Shows awareness of audience's needs			
• Uses appropriate levels of language			
Number Sense and Computation			
• Uses multiplication and division facts and concepts to solve simple, real-life word problems (level 2*)			
• Determines the value of a missing factor in an equation involving multiplication			
Self-Management and Self-Direction			
• Takes initiative			
• Works with minimal supervision			

*   The word problems in Part Two, numbers 4 and 5, are more advanced than level 2, although more complex word problems are not part of the level 3 description. Your learner may need help in setting up these problems.

Learner Self-Evaluation

1. I understood what I was asked to do in part one.
   ☐ yes   ☐ some   ☐ no

2. I understood what I was asked to do in part two.
   ☐ yes   ☐ some   ☐ no

3. I understood what I was asked to do in part three.
   ☐ yes   ☐ some   ☐ no

4. I read and understood the *Near Miss Report* without difficulty.
   ☐ yes   ☐ some   ☐ no

5. I could interpret the information in the Management Units chart.
   ☐ yes   ☐ some   ☐ no

6. I was able to understand the Spill Reporting Requirements and fill out the Environmental Incident Report.
   ☐ yes   ☐ some   ☐ no

7. I am satisfied with my work on this demonstration.
   ☐ yes   ☐ some   ☐ no

8. I think I could have done better and would like another chance.
   ☐ yes   ☐ some   ☐ no

After completing this demonstration, I would like to work on…

☐ More *Near Miss Reports* and other safety reports.

☐ More calculations involving trees per hectare.

☐ Reading more forest industry materials.

☐ Filling out more industry related forms.

☐ None of these. I feel confident in all of these areas.

Answer Key

Part One

1. What Happened, How did this happen, Prevention

2. What Happened

3. How did this happen

4. Re-cap of pertinent details in the Prevention paragraph.

5. Yes, it's important to know the team is experienced. It means that this kind of accident can happen to anyone, not just workers without much experience.

Part Two

1. Nighthawk Forest, Iroquois Falls Forest, Porcupine Boreal

2. Six

3. Six

4. Large size cavity trees are correct. Number of hectares multiplied by required number of large size cavity trees:

    $12 \times 7 = 84$

    Trees greater than 3m that should have been left standing: Number of hectares multiplied by the required number of trees greater than 3m tall:

    $12 \times 17 = 204$

    Total number of leave trees that should have been left standing:

    $204 + 84 = 288$

5. Leave trees required. Multiply remaining hectares by total number of leave trees required per hectare:

    $38 \times 24 = 912$.

    Calculate the shortfall of leave trees from the first 12 hectares:

    $288 - 237 = 51$.

    Total number of leave trees required $912 + 51 = 963$

    Total number of large size cavity trees required: $38 \times 7 = 266$

    Total number of trees >3m tall required: $38 \times 17 + 51 = 697$

Part Three

1. Yes, you need to make a report within 24 hours.

2. Form should be correctly filled out.

List of Reference Materials

Job Profile Binder prepared for forestry worker

Single sheet of essential skills for forestry workers

Forestry Operations Manual from Norbord Nexor

Tembec authentic document: Environmental Incident Report

Conversations with employers and contractors in forestry, including Nighthawk Timber and Boreal Forestree.

http://www.ofswa.on.ca/ (Ontario Forestry Safe Workplace Association)

http://www.ofswa.on.ca/nearlis.html (Near Miss Reports)