# LEAN CASE STUDY:

## Lean Goes to New Brunswick Community College

A short time ago we received some warm comments from Bruce Fowler at the New Brunswick Community College concerning a series of Lean awareness workshops we delivered to the Mechanical Engineering Technology class. Inspired by Bruce's comments we would like to share with you our experience at the college. "I want to express my thanks and appreciation to Lean Advisors, and especially to Joe Beckett, for his series of presentations that did a wonderful job of introducing "Lean Manufacturing" to my Mechanical Engineering Technology: Production Management Option here at NBCC Saint John. I certainly recognize the significant amount time and resources required in preparation for such a professional presentation. Certainly, my students are now very keen on lean. My students are currently in the process of selecting senior technical projects, and many of them are trying to look for opportunities to incorporate lean aspects into possible solutions. Their vocabularies now have lean terminology. The sessions were motivational. Thank you." Sincerely, Bruce Fowler, P. Eng., Instructor.

### About the New Brunswick Community College

An 11-campus college network offering services in both official languages. They offer close to 100 programs through four academic schools including the School of Business, the School of Applied Arts and Information Technology, the School of Health and Human Services and the School of Technology and Trades. Why introduce Lean

at the college level?

To give students a head start and make them more employable in the 21st century! The idea developed while conducting Lean training at a local company. The audience consisted of operations people who had limited exposure to Lean. Early in the day it became evident that they were not interested and had heard it all before. "We are going to do great things with (fill in the blank)" Things will get better if you just do this". I am referring to the flavour of the month improvement and quality initiatives we have used throughout the years. So, in their minds, why should Lean be different? This initial reaction is not unlike those of many companies we work with. There is a breaking point in all of us where we resist change. If someone told you "In order to improve customer satisfaction you will have to walk backwards". There is a good chance that you would refuse to accept that notion as anything other than ridiculous until someone explained to you exactly HOW and WHY walking backwards improves your customer's satisfaction. This is a silly analogy but it makes the point of how some staff feel when asked to do yet another edict from on high. As the day progressed, there were a lot of comments about how and why Lean "won't work here". When we completed the Lean simulation, the light came on and "this Lean thing" became something everybody could understand and relate to. They then wanted to know "OK, so we eliminate waste, implement flow and shorten lead times What's in it for me?" Lean Implementation Plan

The next few months were at times arduous as the company executed its Lean implementation plan. There was still the "yes we understand, but" way of thinking. Pockets of resistance and indifference towards Lean were evident throughout the

facility. Gradually continuous effort by certain individuals began to weave a cultural fabric of continuous improvement throughout the plant and Lean began to take hold. The company is now the model plant for efficiency as Lean spreads throughout their enterprise. Back to the question of why introduce Lean at the college level. We began to think about how to shorten that break-in period from several weeks to days. If we introduce Lean to individuals before they enter the workforce then they will have the opportunity to assist management in its effort to bring the change that is necessary to support the transition to Lean. They would bring fresh ideas in to an environment where the 'we've always done it this way' methods just do not cut it in today's business environment. The presentations centered on the concepts of waste, value and flow with an understanding of the behaviours required to support Lean and why and how these concepts compliment each other to make dramatic changes in an enterprise. We tied it all together by continually addressing the 'what's in it for me?' question. Lean Concepts And Tools

Various concepts covered included Lean tools and concepts - Value, Flow, Waste , Enterprise Value Stream Mapping™ and the differences between batch production and single piece flow. Non-manufacturing examples were given to reinforce the notion that Lean works across all types of businesses. We learned how Lean works as a continuous improvement vehicle through the Current State - Future State - Current State cycle. The emphasis was on continuous improvement that is driven by continuous effort. Many companies say they have a continuous improvement program in place when what they really have is a firefighting team. Continuous improvement is just hard work, there's no way around that! Continuous improvement means mapping the value stream, identifying the waste, eliminating the waste, and then doing it all

again, continuously and at an accelerated rate each time. You can accelerate the effort because each time you repeat the cycle you become more adept at identifying and eliminating waste. And just who would be the people to champion this effort? The people in this class! That was the message. We discussed what makes a successful Lean company, what behaviours are required to succeed in a Lean company, what behaviours should be rewarded, how Lean champions can have a system wide impact across the enterprise, and how a traditional company structure is different from that of a Lean company. Lean Simulation

The notion of Management existing to support Value where it is created certainly gave these production management candidates a boost! Theory was reinforced with 4 rounds of Lean simulation including enterprise, process alignment, simulating Lean tools, and finally to a completely Lean, single piece flow consisting of 2 production lines and a mixed model line. It was remarkable to see how the student's behaviour changed from week to week. Initial curiosity eventually gave way to well, let's call it rational exuberance. They realised that they had experienced something new that would add significant value not only to themselves but also to the companies where they would soon be employed. Thanks again to Bruce Fowler and his colleagues at the New Brunswick Community College for giving us the opportunity to participate in the Production Management curriculum and having the courage to try something new. It was one of the most rewarding experiences and the plan is to continue delivering this training as a service to the students, young and old, who want to have an impact in whatever career they choose.