

**If you do not know how to ask the right question,
you discover nothing.**

– W. Edwards Deming

Questions. Analytics. Action.

We were lucky. The current Plant Manager* at one of Ohio's largest steel manufacturing facilities knew the right question to ask.

Discovering the right question, however, wasn't easy. It was hidden behind an almost endless list of symptoms, problems, quality concerns, and management challenges.

Everyone could identify the problem. *Downtime*.

Everyone knew the issues downtime created. There were the obvious operating and profit losses. There were also material expenses, defects, and massive man-hour losses...not to mention the unmeasurable losses like the defeat the workers felt every time they had to shut down.

Knowing the problem – being able to say what the problem is and the issues it's causing – rarely leads to a solution. In fact, this usually makes the problem worse because people launch into firefighting mode instead of digging deeper to find the root cause.

This leader dug deeper.

He asked questions like, "Where is the downtime coming from? What type of downtime is costing us the most? And, where can we get the biggest bang for our buck when it comes to investing in improvements?"

Best of all, he didn't have to guess at the answers. He had mounds of data tucked away in his ERP system, and even more data captured in Excel Spreadsheets and handwritten records. The answers were there, buried in all that data. Now he needed to turn that information into insights and those insights into action. Analytics would help him discover which actions would most effectively drive results.

*The guys out in the mill had an idea what was causing the downtime – **they could all point to one reason or another why the mill was down that day**. And, they were great at fixing those problems each time they occurred.*

*One of the biggest issues they had was they were unable to take a step back to look at the bigger picture – to identify trends, and to find the specific issues that were causing the biggest sources of downtime overall. **It's hard to see the bigger picture when you're always working on the next most important problem.***

Matt Murphy
AMEND Analytics Project Leader

Focus. Prioritize. Drive Systemic Improvements.

It took about a week for the AMEND Analytics team to look at the data a dozen different ways. What they found not only improved the daily operations, it promised to add hundreds of thousands in profits.

Analysis revealed that inside each product size, one particular type of downtime was causing most all the losses. It also revealed that eliminating the first occurrence was most critical because one occurrence increased the chances of a second occurrence by more than 80%.

What to do next was now crystal clear. Focus on reducing or eliminating this one type of downtime and the biggest possible impact will be achieved.

The data allowed them to focus, prioritize and drive systemic improvements on the 80%, rather than the 20% of exceptions that caused headaches on a day-to-day basis. It took their "tribal knowledge" and gave it teeth.

Matt Murphy
AMEND Analytics Project Leader

The Plant Manager and his team figured out the areas and actions that needed to be right before fire up, and then put systems in place to ensure results. They posted reminders at each station to help workers remember to watch out for the top five issues that drive 80% of the downtime occurrences. And, the team bought in and followed through because they knew the plan was data-backed and solid.

The Plant Manager was able to shift his team's thinking – getting them more involved and engaged – because the data analysis made it possible for him to explain WHY each change was important. He used the data to move them from workers to owners, and these new owners were now fully invested in the outcome.

Critical downtimes dropped almost 20%. Profits increased more than 5%.

A few weeks and a \$25,000 investment in analytics generated big changes, immediate impact, and paid for itself in weeks.

*Full Disclosure – the acting Plant Manager was Bobby Smyth, a Partner here at AMEND. Any qualified VP of Operations, and even some really skilled Plant Managers could have used their wisdom and experience to identify the right question, just as Bobby did.

Byer Steel

[2015] Analytics Work To Identify And Prioritize Focus Areas For Improvement

The AMEND Analytics team spent 2-3 weeks working with leadership to identify the trends and specific issues that were causing a majority of the downtime losses in the mill. Analysis helped leadership see the actions that would drive the biggest reduction in overall downtime. Leadership took quick action – **decreasing critical downtimes by almost 20% and adding hundreds of thousands in profit to the bottom line.**

"This is gold. It confirms what years of experience has taught me. Now we can finally predict and get out ahead instead of constantly chasing the problems."

Burke Byer
Owner

