

## The Error-Proofing Process

This is a follow-up to an article appearing in October titled “Learning from Mistakes.” Error-proofing your business is a continuous improvement process. It involves the careful tracking of the type and frequency of mistakes that are made, the identification of the real root cause, and the implementation of corrective actions to prevent their reoccurrence.

If you choose not to follow the above process you can expect the following to apply: “If you always do what you’ve always done, you’ll always get what you always got.”

Mistakes often result in one or more of the following forms of waste and over a period of a year they can add up to a significant operating expense. These expenses include customer service operations, replacement materials, rework labor, scrapping defective materials, lost repeat business, added shipping expense, etc. Such costs are common in manufacturing but they are also present in the retail, restaurant, service, and entertainment businesses.

It is common for employers to not know the extent to which mistakes are having an adverse impact on their business. Why? The primary reason is that employees often believe that their mistakes will result in some form of verbal or monetary punishment so mistakes often go unreported.

So what should the employer do? Management should acknowledge the fact that mistakes do happen. They need to formalize the process for recording the type, frequency, and even the cost associated with the correction of mistakes made. Employers must also not punish or berate their employees for making mistakes.

This new “embracement” of mistakes would be like installing a special cash register into which mistakes are deposited instead of dollars. At the end of the day the drawer is opened and the mistakes are examined. The employees then have a discussion about what may have caused them; and employees are expected to make suggestions that would improve the process and prevent their reoccurrence.

A common practice to eliminate mistakes is to prescribe more employee training but that is rarely an effective form of corrective action. Mistakes are most often caused by a weak or failed process. Therefore, those involved must dig deep to find the true root cause so they can improve the process. This digging is referred to as asking the “5 - Whys.” The NTSB is probably the best know agency for using this method to investigate the cause of airplane accidents.

Here is my personal automotive experience as an example of the 5 –Why process:

The “check engine” light is on again in my car. The dealer says the fault code indicates a problem with the throttle position sensor. The dealer then recommends corrective action. Replace the throttle body at owner’s expense.

Wait a minutes! This is beginning to feel like “Ground Hog Day.” The throttle body was just replaced last year under warranty. It looks like the same problem (mistake) is back. Maybe you haven’t identified the real root cause.

It is now time to dig deeper using the 5 - Why approach:

1. Why was the throttle body defective? Looking closer it appears the throttle body electrical connection is being contaminated by some type of nasty fluid?
2. Why is there fluid in this connection? There is a small leak around the shaft of the water pump. Antifreeze is dripping onto the fan belt and the belt is throwing dirty drops onto the electrical switch.
3. Why is the water pump leaking? The seal around the shaft of the water pump is bad. It looks like the water pump should be replaced.
4. Why did the water pump fail at only 40,000 miles? The seals was supplied by a temporary (backup) supplier and this part had passed the manufacturers’ long term durability test.
5. Why were parts being supplied by a temporary supplier? Because a fire had destroyed the production capacity at the primary supplier location.

In this example several corrective actions should be implemented in the supply chain to improve the process. My car was a 2005 model and I discovered that by 2009 the manufacturer had even relocated the throttle body electrical connection so that is was no longer directly over the top of the fan belt.

If you own or manage a business and you make mistakes then you have an opportunity to improve your efficiency and your customer satisfaction. If you would like some help on how to get started on this continuous improvement journey please contact SCORE by placing a call to the Petoskey Regional Chamber of Commerce office.