



**TALSICO™**

# Locking In Your New Changeover Procedure™



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As you implement improved changeover procedures you will be introducing new processes, behaviors and beliefs. The success of your initiative hinges on your ability to get your employees to let go of existing habits and behaviors, many of which may have been years in the making, and adopt and sustain new behaviors and beliefs. This is no small challenge, but the better you understand how learning occurs and how behaviors and beliefs are formed, the easier it will be to build sets of behaviors and beliefs that support improved performance.

### ✉ Case Study - Backsliding on use of New Changeover Procedure:

In 1998 a well known consumer goods company spent eight months and \$360,000 on Kaizen and Quick Changeover re-engineering of their filling lines to enable operators to perform faster changeovers. The firm that consulted on the project calculated that the average line could be changed over in 48 minutes and predicted savings of approximately \$480,000 per year as a result of faster changeovers and lean manufacturing practices.

Two years later when Talsico was called in changeovers were taking more than double the predicted time, and very little of the predicted savings had been realized. So, what went wrong?

The equipment had been successfully re-engineered. The management team was committed and supportive of the new initiatives, and considerable money had been spent training operators in the new method of performing changeovers. So why did this initiative which in the beginning seemed so promising, languish over time?

Some comments from the management team give us a clue:

- *"People reverted back to their old way of doing things".*
- *"Unless there was someone there watching them, or clocking them, they seemed to just go back to doing what they were comfortable with".*

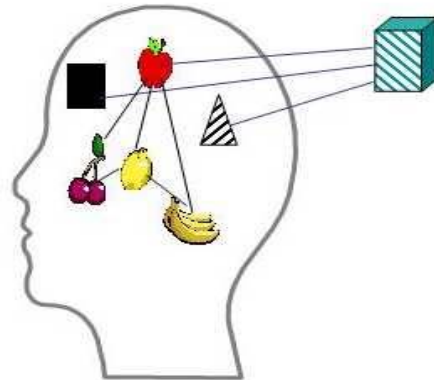
Most initiatives fail to deliver, not because of poor engineering or lack of resource. They fail to deliver because the new skills, knowledge, behaviors and beliefs which are required to make these initiatives succeed do not become embedded in the minds of the individuals. They never really become part of the way they do their jobs.

## How are habits formed:

To understand how habits are formed we need to understand a little more about how the brain works:

- *Learning is a process of making links (neural pathways) between brain cells (neurons) in the brain.*
- *These links can be formed by emotion, repetition, multi-sensory or multi-source input.*

- *The stronger the link, the stronger the learning and retention, or the stronger the habit.*



**Emotion** - a new employee is in an emotionally vulnerable situation, they want to fit in and be accepted. So when an experienced 'old hand' shows the new employee how to do a task and says "This is the right way to do this", it forms a strong link.

**Repetition** - each time that an employee carries out the task they are strengthening the knowledge and motor skill links associated with that task, further strengthening those links.

**Multi-sensory input** - learning takes place on numerous levels. A good operator not only knows how their machine should operate, they know how much heat it generates during normal operation, what sounds it makes, how much vibration it throws off. We learn through our senses and these form additional links.

**Multi-Source Input** - the same information from different sources, such as a person and a manual, forms strong links.

As you can imagine, an employee who has been with you for 10 years will have formed extremely strong links, or habits, with regard to the performance of their job. This long-term employee is now emotionally secure and feeling quite comfortable in their job. Here you come with your new changeover procedure. What are you introducing into their lives? **Change and insecurity**. Is it any wonder that you may find them resisting change?

### How to break old habits and embed new behaviors:

As your employees learn the new changeover procedure they will form new links, but it is important to remember that the old links still exist, and to a large degree these new links are competing with the old links for dominance. During this period of competition, which can last for days, weeks or even months, you need to reinforce these new links, making them stronger, while helping the employee break the old link, or habit.

**Breaking links** - in order to break links you need to identify how the link was formed and break it using the same sense. For example, most changeovers involve the alignment of parts, these are frequently visual and tactile processes where the operator judges a spatial relationship. It would be ineffective to try to break the existing visual and tactile links by telling the operator about the new spatial relationship. They need to see it and touch it. You must design specific learning activities that focus on these senses.



**Imposing Reinforcement** - Until the new behaviors become embedded as habits they will feel uncomfortable. During this phase people will resist the new behavior and revert to their old behaviors given the chance. It is crucial that during this phase you put in the mechanisms in place to impose the new behaviors. These mechanisms may include:

- *audits*
- *behavioral observation*
- *structured procedures incorporating proof of the use of the new behavior (eg 'Process Picture Maps')*
- *structured peer to peer transfer of knowledge and skills incorporating proof of the new behavior (eg: Goal Oriented Learning)*

These activities force repetition and increase emotional commitment.

### **Understand the impact of stress:**

As you go through this process of breaking old links or habits and forming new links it is important to understand that under stress individuals will revert to the strongest link. For example, for the past 10 years you've had a fire extinguisher on the east wall of your facility. You recently moved it to the west wall and notified everybody via memorandum of the new location. If there was a fire next week, which wall do you think people would run to? If you answered the east wall, you're right. Under stress people revert to the strongest links. The important lesson here is that you must strengthen the new links as quickly as possible, particularly if safety is involved. You must identify the primary sense used in forming the old link and you must put forth effort into extinguishing the old link and reinforcing the new.

### **Back to the Case Study:**

So, why did employees at the consumer goods company go back to their old behaviors, despite training and the commitment of the management team? Our consumer goods company focused their efforts on initial training and did not provide sufficient follow-up activities to extinguish the old links, or habits, and consequently when they were not supervised their employees reverted to the old procedures, which they felt more comfortable with.

In the end this was not a difficult problem to solve. Once the management team gained a better understanding of human behavior we were able to significantly improve their changeover times through a learning process and documentation that was specifically structured to embed and reinforce the new changeover process and to extinguish the old links, or habits.

For more information on learning strategies and tools that can assist you in breaking old habits and embedding new behaviors please contact us at either of the addresses below:

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