

# Behavioral Adjustment - Conditioning Humans to Safety



**This book is dedicated to all the men and women who are serving or who have served in Australia's Military Forces, you will at a glance understand the concept behind this model.**

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#### **Credits**

**I would like to credit Dr. Robert Long (Human Dymensions)**

**With turning on the little lightbulb above my head with his books and writing's.**

**And the Australian Army, who gave me the methods and experience.**

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## The Current Trends

I am neither psychologist nor psychiatrist, although I have in the past had training as a lifeline phone councillor in suicide prevention, what I am is a safety person dedicated to preventing injuries and accidents in the workplace, and am solely focused on the work environment and not what people choose to do away from that environment . In order to understand the concepts of the psychology of risk takers, and inturn accident creators, I have read and studied a multitude of white papers, thesis, reports and models of risk and behaviours, trying to find something new that I could use in the workplace. I have studied and interviewed many workers, whom after an incident or accident, as part of



the investigation process, I analysed to ascertain their thoughts preceding the accident. Their answers were widely separated and almost impossible to ascertain a common denominator into building a causation model, behaviours seemed erratic and extreme in some cases or circumstances, and I ended up asking myself, why do people do what they do? How can rational humans

embark on a course of action that will harm them? What is the mental initiator that places them on the path of an unknown consequence? Many things have been promulgated and studied, and some action has evolved to try and understand, or rationalize and control these behaviours. Many models exist to try and control workers behaviours, behaviour based safety is one such model, there are many being used and all are different in concept or action.

I have read the "Risk Homeostasis Theory" this maintains that in any activity, people accept a certain level of subjectively estimated risk to their health and safety or other things they value, this is a valid argument, and is exhibited in the workplace, but it is not where we want people to exhibit such behaviours. I have looked at behavioural models like **DiSC**, "Dominance – Influence – Steadiness – Conscientiousness" by William Moulton Marston, this just gives a psychological profile, OK if you are in a HR department, not so useful in safety, you would need to evaluate every worker, and in a transient worker work place this is not possible.

So I have decided to move away from the risk control scenarios and modelling because it is the job of every safety person to identify and control risks in the workplace, therefore any modelling associated with risk is not what I am looking for. I need a deeper psychological approach to change or alter behaviour patterns in workers. I shall therefore look at some current models that cover this area. Dr. Robert Long (Human Dimensions) has designed a good starting point, where he has broken down the various models into (Safety Streams and Styles) in his white paper "The Zero Aspiration, The Maintenance of a Dangerous Idea" and is an appendix to the white paper, very good reading if you are planning a Zero Harm program in your workplace.

As stated by Dr. Robert Long (Human Dimensions), there are already a number of established and embraced styles of safety.

1. Orthodox Legal
2. Safety Science
3. Behaviour Based Safety
4. Zero Harm
5. Process Based Safety
6. People Based Safety
7. Psychological Safety
8. Social Psychological Safety

Each of these styles have associated streams, and each has merit in its own right, depending on your workplace and what it is you are trying to achieve there.

Since I am searching for a psychological approach, what caught my eye were the styles of Behaviour Based Safety and Psychological Safety, so I will look at the BBS model first.

## Behaviour Based Safety

The implementation of “Behavior-Based Safety” approaches are designating specific safe behaviors, observing people on the job, providing feedback and rewarding and recognizing improvement. From its onset managers and supervisors can realize the behavior-based elements of the safety process can be used to enhance, complement and sustain the continuous improvement system. Behavior-based systems require flexibility to address the diverse behavior chains unique to a variety of performances.



That may be the reason that behavior-based systems are better designed for integration with other ongoing improvement processes.

When implementing a BBS, blending strategies of existing management styles to address quality, cost, delivery, safety and morale-related issues was important, but no one was exactly sure how to go about the task. In addition, people knew that sustainment of these methods would be a key to long lasting improvements and cost containment.

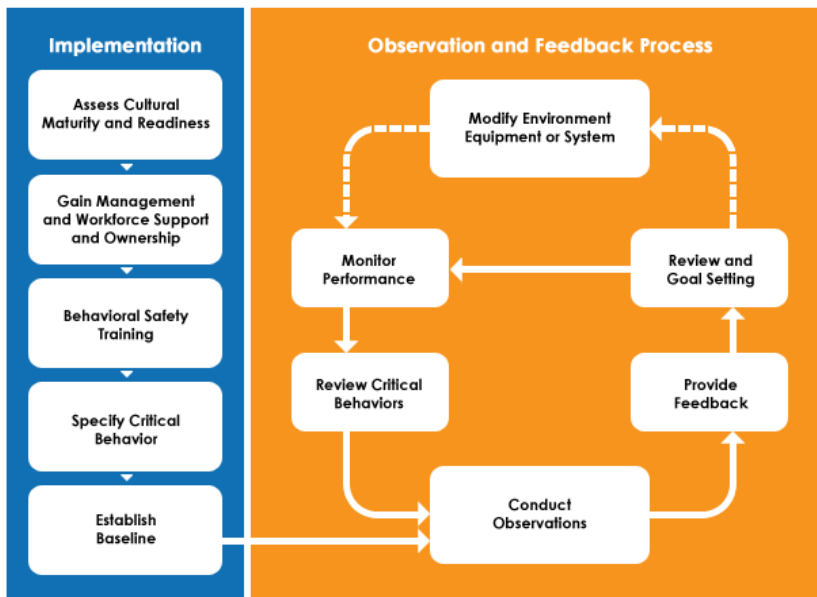
Employee ownership and acceptance of activities on a day-to-day basis by the people on the shop floor presents the greatest challenge for the company. All of the company's seven manufacturing operations use this to drive shop floor improvement. It seems reasonable that using behavioral methods such as pinpointing and measuring of behaviors followed by consequence management focusing on positive reinforcement will enhance the success and long-term sustainment of plant performance improvement processes. This includes fundamental things such as keeping the workplace organized and clean, establishing standard work instructions and maintenance schedules, measuring cycle time and lead time on a daily basis, maintaining floor space reduction improvements, and so on. Sustainment is achieving all this and more without continual management prompting. Following are some conclusions drawn from an employee insight survey. The survey compared employee answers to questions about their jobs and grouped responses based on their level of experience:



- Positive feelings about employee involvement directly correlated to the number of Kaizen events employees had participated in. In fact the results showed it was statistically more significant as the number of events increased. Similar types of results were documented regarding employees' feelings toward supervision, career advancement opportunities, and job satisfaction. The same was true regarding their attitude toward the entire initiative.
- Employees who participated in more events felt their supervisor did a better job of communicating.
- Employees who participated in more events felt they had better opportunities to share their views with the team.
- Employees who participated in more events felt it was going to be a permanent part of the way the company operates.
- There were a significant number of employees who felt that after a team finished its work there was not adequate follow-up to make sure that recommended changes were maintained and implemented successfully.
- Employees who participated in more events felt that the initiative improved the efficiency of operations.
- Employees who participated in more events viewed the initiative as necessary to ensure competitiveness.
- An overwhelming majority of all employees expressed a belief that the company is socially responsible in the community and to the environment.



- Employees who participated in more events showed a statistically significant difference in positive response to how satisfied they were to be working at the company.
- The majority of employees, regardless of their experience, felt their job was really worthwhile and gave them a sense of personal accomplishment. They also viewed their jobs as important to



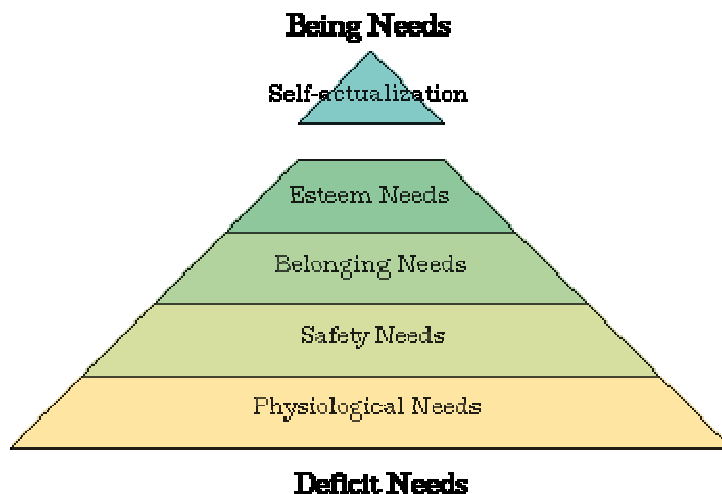
the company. *This information was collected by an independent survey firm hired to obtain honest feedback regarding employee perceptions about their jobs, company policies, practices, programs, the work environment and supervision. Statistically significant differences were calculated at the 95 percent confidence level.*

The bottom-line conclusion when analyzing the survey response data is that employees who have participated in more events generally feel more positive about their jobs and about the company. The big question that remains then is why is there a struggle on a daily basis to sustain continuous improvement activities following the events? It could be that the lack of adequate sustainment is neither the fault of management nor the employees. Instead a weakness exists in the implementation process. A lack of reinforcement and appropriate consequence management are missing mechanisms that when blended into the Continuous Improvement process produce superior results. In other words, until it becomes a habit to perform a certain way while doing one's job, people easily revert back to the old way of doing things. Most continuous improvement systems don't include an ongoing feedback and support structure of consequence management. This company's Continuous Improvement program is missing these key elements. For example, managers are not instructed on how to behave to keep the system

going. Consequently the success is of a hit-and-miss nature, usually resulting in unsustained success. Continuous improvement processes need to acknowledge and manage the important role of behavior and consequences inherent in those processes.

## Abraham Maslows Pyramid of psychological behaviors.

One of the many interesting things Maslow noticed while he worked with monkeys early in his career was that some needs take precedence over others. For example, if you are hungry and thirsty, you will tend to try to take care of the thirst first. After all, you can do without food for weeks, but you can only do without water for a couple of days! Thirst is a “stronger” need than hunger. Likewise, if you are very very thirsty, but someone has put a choke hold on you and you can’t breathe, which is more important? (The need to breathe, of course.) On the other hand, sex is less powerful than any of these. Let’s face it, you won’t die if you don’t get it!



Maslow took this idea and created his now famous **hierarchy of needs**. Beyond the details of air, water, food, and sex, he laid out five broader layers: the physiological needs, the needs for safety and security, the needs for love and belonging, the needs for esteem, and the need to actualize the self, in that order.

1. **The physiological needs.** These include the needs we have for oxygen, water, protein, salt, sugar, calcium, and other minerals and vitamins. They also include the need to maintain a pH balance (getting too acidic or base will kill you) and temperature (98.6 or near to it). Also, there’s the needs to be active,



to rest, to sleep, to get rid of wastes (CO<sub>2</sub>, sweat, urine, and feces), to avoid pain, and to have sex. Quite a collection!

Maslow believed, and research supports him, that these are in fact individual needs, and that a lack of, say, vitamin C, will lead to a very specific hunger for things which have in the past provided that vitamin C -- e.g. orange juice. I guess the cravings that some pregnant women have, and the way in which babies eat the most foul tasting baby food, support the idea anecdotally.

2. **The safety and security needs.** When the physiological needs are largely taken care of, this second layer of needs comes into play. You will become increasingly interested in finding safe circumstances, stability, and protection. You might develop a need for structure, for order, some limits.

Looking at it negatively, you become concerned, not with needs like hunger and thirst, but with your fears and anxieties. In the ordinary American adult, this set of needs manifest themselves in the form of our urges to have a home in a safe neighborhood, a little job security and a nest egg, a good retirement plan and a bit of insurance, and so on.

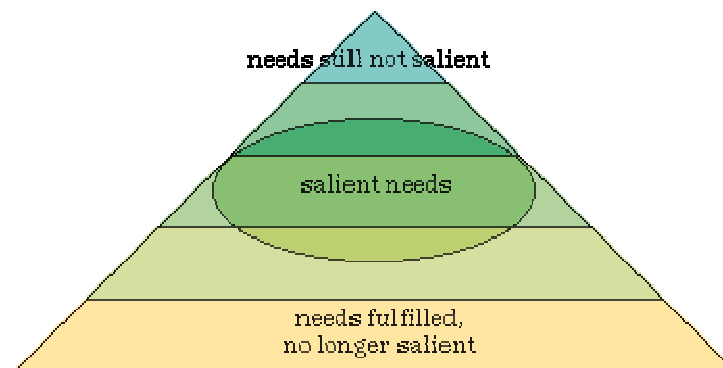
3. **The love and belonging needs.** When physiological needs and safety needs are, by and large, taken care of, a third layer starts to show up. You begin to feel the need for friends, a sweetheart, children, affectionate relationships in general, even a sense of community. Looked at negatively, you become increasingly susceptible to loneliness and social anxieties.

In our day-to-day life, we exhibit these needs in our desires to marry, have a family, be a part of a community, a member of a church, a brother in the fraternity, a part of a gang or a bowling club. It is also a part of what we look for in a career.

4. **The esteem needs.** Next, we begin to look for a little self-esteem. Maslow noted two versions of esteem needs, a lower one and a higher one. The lower one is the need for the respect of others, the need for status, fame, glory, recognition, attention, reputation, appreciation, dignity, even dominance. The higher form involves the need for self-respect, including such feelings as confidence, competence, achievement, mastery, independence, and freedom. Note that this is the "higher" form because, unlike the respect of others, once you have self-respect, it's a lot harder to lose!

The negative version of these needs is low self-esteem and inferiority complexes. Maslow felt that Adler was really onto something when he proposed that these were at the roots of many, if not most, of our psychological problems. In modern countries, most of us have what we need in regard to our physiological and safety needs. We, more often than not, have quite a bit of love and belonging, too. It's a little respect that often seems so very hard to get!

All of the preceding four levels he calls **deficit needs**, or **D-needs**. If you don't have enough of something -- i.e. you have a deficit -- you feel the need. But if you get all you need, you feel nothing at all! In other words, they cease to be motivating. As the old blues song goes, "you don't miss your water till your well runs dry!"



He also talks about these levels in terms of **homeostasis**. Homeostasis is the principle by which your furnace thermostat operates: When it gets too cold, it switches the heat on; When it gets too hot, it switches the heat off. In the same way, your body, when it lacks a certain substance, develops a hunger for it; When it gets enough of it, then the hunger stops. Maslow simply extends the homeostatic principle to needs, such as safety, belonging, and esteem that we don't ordinarily think of in these terms.

Maslow sees all these needs as essentially survival needs. Even love and esteem are needed for the maintenance of health. He says we all have these needs built in to us genetically, like instincts. In fact, he calls them **instinctoid** -- instinct-like -- needs.

In terms of overall development, we move through these levels a bit like stages. As newborns, our focus (if not our entire set of needs) is on the physiological. Soon, we begin to recognize that we need to be

safe. Soon after that, we crave attention and affection. A bit later, we look for self-esteem. Mind you, this is in the first couple of years!

Under stressful conditions, or when survival is threatened, we can “regress” to a lower need level. When your great career falls flat, you might seek out a little attention. When your family ups and leaves you, it seems that love is again all you ever wanted. When you face chapter eleven after a long and happy life, you suddenly can’t think of anything except money.

These things can occur on a society-wide basis as well: When society suddenly flounders, people start clamoring for a strong leader to take over and make things right. When the bombs start falling, they look for safety. When the food stops coming into the stores, their needs become even more basic.

Maslow suggested that we can ask people for their “**philosophy of the future**” -- what would their ideal life or world be like -- and get significant information as to what needs they do or do not have covered.

If you have significant problems along your development -- a period of extreme insecurity or hunger as a child, or the loss of a family member through death or divorce, or significant neglect or abuse -- you may “fixate” on that set of needs for the rest of your life.

These are good models, and may work in some workplaces, but I am looking for a deeper psychological system, that is easy to implement, no cost to establish, easy for the worker to participate in, and most importantly easy to monitor.

## **A new model: Behavioral Adjustment “Conditioning”**

Moving into the psychological arena.

I am proposing to add a new dimension to the model style list, one that has been used successfully for thousands of years by professional military forces, parents, teachers and animal trainers, it is called “Conditioning” To begin with we will look at an animal that is conditioned by nature.



So are human's sheep? No!

Behaviorisms aside, sheep have a herd mentality, and some humans do too, but with sheep, following one another and running when one runs is a survival strategy, not with humans. Humans are conditioned to behave like sheep, not act like sheep. Quite often, those who religiously follow the crowd – in safety for example – regardless of whether something suits them or not, are often referred to as sheep. Or even lemmings if they jump without paying heed to the consequences. Sheep however are comfortable just to follow each other from one field to the next without question as they are in fear of losing contact with the flock they are with. In addition, they will follow each other with confidence into the new field of fresh grass. They go because they know it's safe to go there (because of the numbers) and because of the other sheep it's possible to get there, such is their confidence in each other's decisions. Hence the queue or a line, for the sheep the fresh green grass is almost a bonus! It takes therefore, a very determined and focused animal to go against the flow, or a very determined shepherd to herd his sheep when they're focused elsewhere. Quite often in safety we can find ourselves treading the same path, doing the same as we've always done because it is the easy option.



It takes far more resource and strength of character to change paths. If you always do what you've always done, you'll always get what you've always got. Whilst remaining with the flock, a safe and well-trodden option, you are unlikely to progress or diversify.



I can already hear the detractors; you want to

create robots, use mind control! Nothing is further from the truth, conditioning affects us from the time we are born, going to school will hone the conditioning your parents started, and you will continue the conditioning process all through life, well for most people, some will rebel against conditioning, but most will accept it as the norm.

Teaching is "Conditioning" to visual, verbal (Audio metrics) sounds stimuli, i.e. esss, simple repetition to keywords, key sounds or key visualizations, like in the picture, teaching or "conditioning children to say the letter "S", with a visual key stimuli being the snake picture and the snake word. Recognition and association, create conditioning to the letter "S", S is for SNAKE. Or number recognition follows the same process.



This will carry through an adult's entire life, being conditioned to act a certain way when driving a car, a red traffic light, a stop sign, we are conditioned as drivers to stop when we come across these visual prompts, or key visualizations. We also have social conditioning in humans, in Australia we pride ourselves about mate ship and mates, no other culture embraces mates or mate ship like the Australians, and this is even more evident in Australia's military forces, but what does it mean? In the Australian military it means to support, help, protect and provide friendship to those you work with, and sometimes those you don't work with, mate ship is what glues the Australian military together, and is so strong no foreign army can break it, military personnel are conditioned to this ethos, and it is not hard to do, since it was already firmly entrenched before joining the military anyway, it is the "Aussies" way of life to provide mate ship, and has been conditioned into our psyche since birth. These days mate ship is not so evident with city people, but still alive and well in country areas, but admit, that in the 2011 Brisbane floods, the Brisbane people came out and showed that mate ship was alive and well, by helping each other with the cleanup. That is the spirit of mate ship, in safety the Harmonized WHS Act 2011 states that we have a duty of care to each other, is this not re enforcing the spirit of mate ship? That has been so thoroughly conditioned into our national psyche?

So, is conditioning so bad? There are many areas where conditioning has taken place, look at what happens to a group of people that read signs that state, "Please Line Up Here" or "Please Stand Behind The Line" Most people do exactly that, is it sheep mentality? No of course not, people are conditioned to respond to these signs. Look at a school, each week the children line up for assembly behind their house colours, they do so unquestioning, and line up according to the house they have been nominated for, it could be word association or visual, either way, the children are conditioned to follow the rules placed on them through conditioning. The military forces have taken this conditioning to a fine art and a higher level, so it will add value to the soldiers, sailors or air personnel. This value add, works well in the military, but not so well with civilians, as a different level of discipline applies, hence when civilians join a military force, they go through a process of conditioning, called recruit training.

So can conditioning workers be used to enhance safety in the work place? Yes it can, with the correct approach, a careful selection of keywords, visual or audio prompts that align to an action or requirement. For example, a large Shopping Centre plays music for its customers, embedded in the music are subliminal suggestions for you to buy product X, it may not work the first or second or even the third time, but you will eventually buy product X, that is also conditioning, but on a subliminal level.

For safety we want to achieve behavioral conditioning, so that on hearing a keyword, or visual prompt, the worker will act in a pre-determined way. Like in the military, if an NCO or Officer has one hundred men marching, and he says "Halt" all halt together as one, or "right turn", all act as one to carry out the



turn, keywords are being used and the personnel are reacting to the keyword (s) that have been conditioned into them, to react a certain way upon hearing them. These key words are triggers of action, and work exceptionally well. For instance, if you were the safety person in an abattoir, and there were rules of wearing specific PPE, you could shout out “PPE” to the men before they started work, so as to action them to either put on or check that they are wearing the required PPE, this done continuously, will condition the workers, that when they hear the word “PPE” they check their PPE to see if it is on. I have done the very same thing with fork lift drivers wearing seatbelts, the keyword “Seatbelt” prompts all drivers to check and see if they are wearing their seatbelt, and they will still check, even if they know they are wearing it.

## **Conditioning Components.**

Conditioning takes in other components in order to make it effective.

1. Positive re enforcement for positive actions
2. Negative re enforcement for negative actions
3. Instill intuitive actions
4. Instill instinctive actions by using keywords or visual prompts that perform and lead to positive actions.
5. Keywords
6. Key Visual prompts
7. Key Audio prompts

This utilizes concepts like control, learning and consequence, and is designed to modify behaviors through repetitious re enforcement, until all actions become instinctive.

Almost every person involved in safety has either knowingly or unknowingly used some form of conditioning, the fact that it works is answered by the fact that it has been used for thousands of years to turn a civilian rabble into professional soldiers, the romans when building their first armies of citizens and turned them into fighting legions, developed discipline and conditioning, it was one of the reasons they did so well on the battlefield and created an empire.

And what is the ease of establishing such a model? As easy as falling from the floor!

One must remember that the majority of workers to a lesser or greater degree, are already conditioned, through parents, schools etc. This conditioning model has traits of a BBS model, but is not behavior based; it is behavior modification through conditioning.

It can take time and is dependent on the level of conditioning already available in the workers; this depends on their upbringing, social status, social integration and educational levels.