



Behaviour Based Safety (BBS) Training in Bauxite Handling Plant Area



A Continuous Improvement Initiative at UAIL Site

Foreword

An assessment of the effectiveness of Behaviour-Based Safety approach introduced in July 2014 in Bauxite Handling Plant Area.

The survey conducted for this study revealed that both the average response rate per construct and the responses per question within the various constructs reflect a *positive response* to the elements tested. It is evident from the results that a large proportion of the employees are of the opinion that teams are trying to improve on communication processes, employees are involved on a personal level, that there is sufficient supervisor support and that leadership exhibits visible leadership in the organisation. These are all constructs testing the elements required to effectively establish the culture of the organisation.

Primary Objective

The primary objective is to evaluate the behaviour-based safety process awareness initiatives implemented at Bauxite Handling Plant Area and to assess whether it can be successfully utilised to establish a culture of zero harm in the organisation.

The objective of the survey is to establish whether JCPL has successfully started creating a culture of aligned commitment and a shared value system through the implementation of a behaviour-based safety program in one month.

Secondary Objectives

Secondary objectives are to attempt to answer the following questions and further coaching on BBS.

- Can the operational and health, safety and environmental successes achieved be related to the behaviour-based safety program.
- Are the communication processes at JCPL effectively entrenched as a result of this initiative.
- Do immediate supervisors exhibit caring and engaging behaviour towards teams?
- Was trust and engagement towards BBS established within the organisation?

Methodologies

An onsite interaction schedule on one to one basis was utilised to determine the existing workgroup's perception about the effectiveness of the behaviour-based safety program implemented, as well as elements of leadership and team dynamics and involvement. This followed by coaching & counseling to establish the psychological contract.



The Target Population

The sample selection was done by using a stratified random sampling technique, where each functional department within the organisation was defined as a stratum. Factors that had to be considered were the availability of employees, due to shift work and planned downtime in operations.

Limitations

The study attempted to determine the effectiveness of the behaviour-based safety process within Bauxite Handling Plant Area. The sample collected cannot be considered as representative of industry as a whole and findings cannot be generalised.

Some Concepts that were explored

- Defining behaviour and the factors that influences behavior.
- The link between behaviour and the performance .
- The link between behaviour and culture.
- The influence of psychological contracts on the behaviour of individuals.
- The role in behaviour modification and change initiatives.

Coaching imparted on the following factors that influence Behaviour

- Personality
- Perception.
- Attitude.
- Skills & abilities.

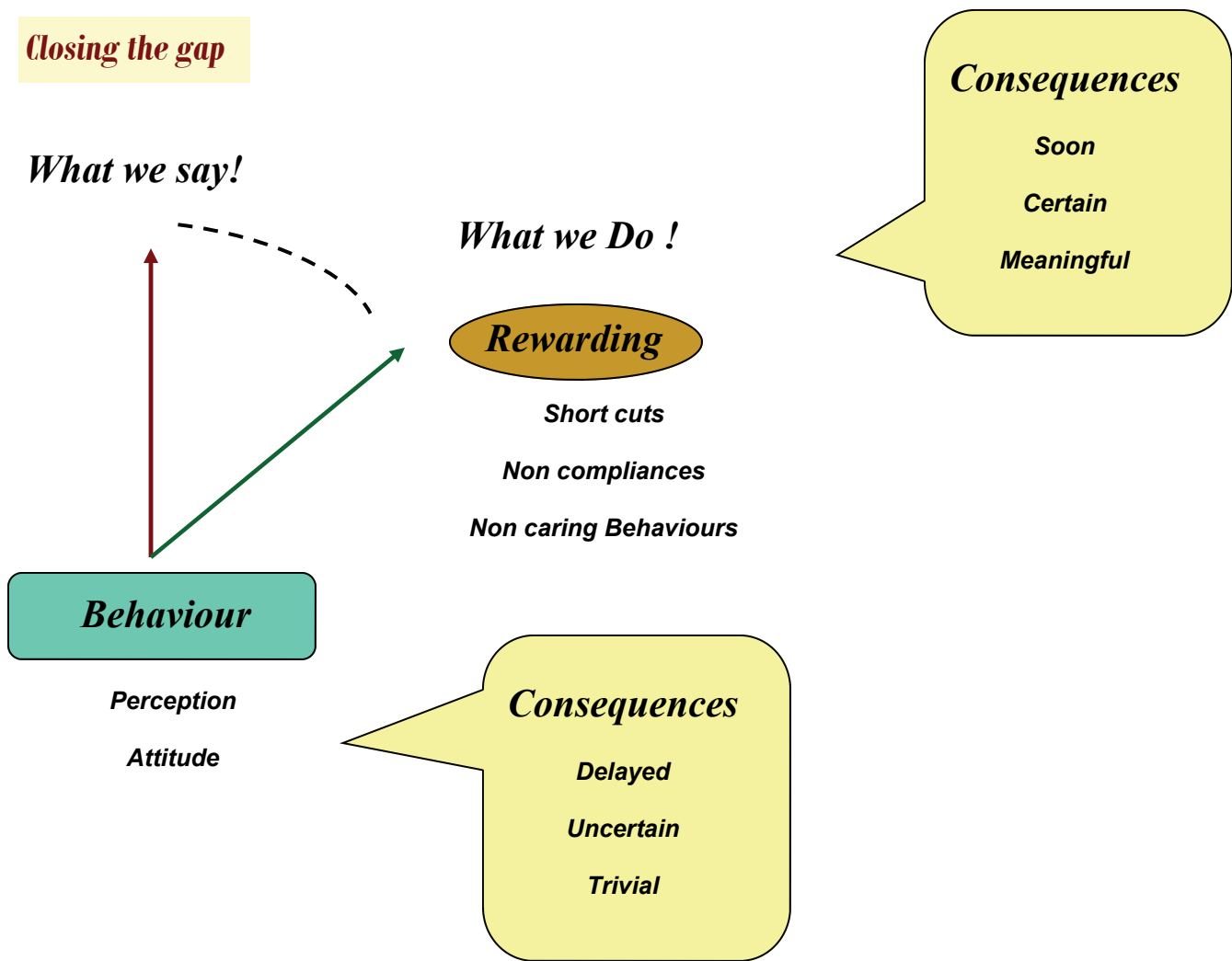
Shared value systems. The behaviour-based safety program aims at establishing a shared value system throughout the organisation. Through training and facilitation of employees and the establishment of the psychological contract, the employees were counseled to understand the importance of the value of Zero Harm and start to live this value in everyday operations.

Changing of locus of control. Employees at all levels on the shop floor were counseled on the need to understand their role in achieving the HSE goals of the organisation and to take responsibility for their own and their peers' safety.

Through coaching & counseling, employees were asked to commit to not only take responsibility of their own safety, but also that of their colleagues. They were also asked to commit to actively manage HSE issues in their own areas of responsibility and escalate any problems they cannot solve to the next level of management.



Closing the gap



The diagram depicts the gap between actual workplace practices and what is required to be conformed to. Employees deviate from standards and procedures because their perception and beliefs are influenced and formed by the consequences, which are regarded as delayed, uncertain and trivial. Shortcuts and therefore deviations from standards are accepted because the rewards i.e. completing a job in a shorter time are immediate, certain and meaningful. The natural relationships between behaviour and its motivating consequences result in "convenient" at-risk behaviours.

The behaviour-based safety program introduced by us utilises principles of behaviour modification and specifically consequence management techniques to close the shown gap. The single most important tool in the behaviour-based safety arsenal therefore, is coaching and counseling on a continual basis as this is the instrument which is utilised to accomplish the behaviour change. Employees and their supervisors establish a psychological contract to abide by the critical behaviours identified by the team. From this point forward the employee shall work at changing his or her behaviour on a daily basis, but also inadvertently gives his or her peer's permission to observe and correct his or her behaviour, should this deviate from the desired behaviour.

Therefore, consequences would soon become , certain and meaningful and would be enforced on a daily basis by the person most likely to observe the 'at risk behaviour 'while at work.

Observations Cited

July 2014 (at the time of initial awareness Training Program on BBS) Vs Aug 2014 (Present)

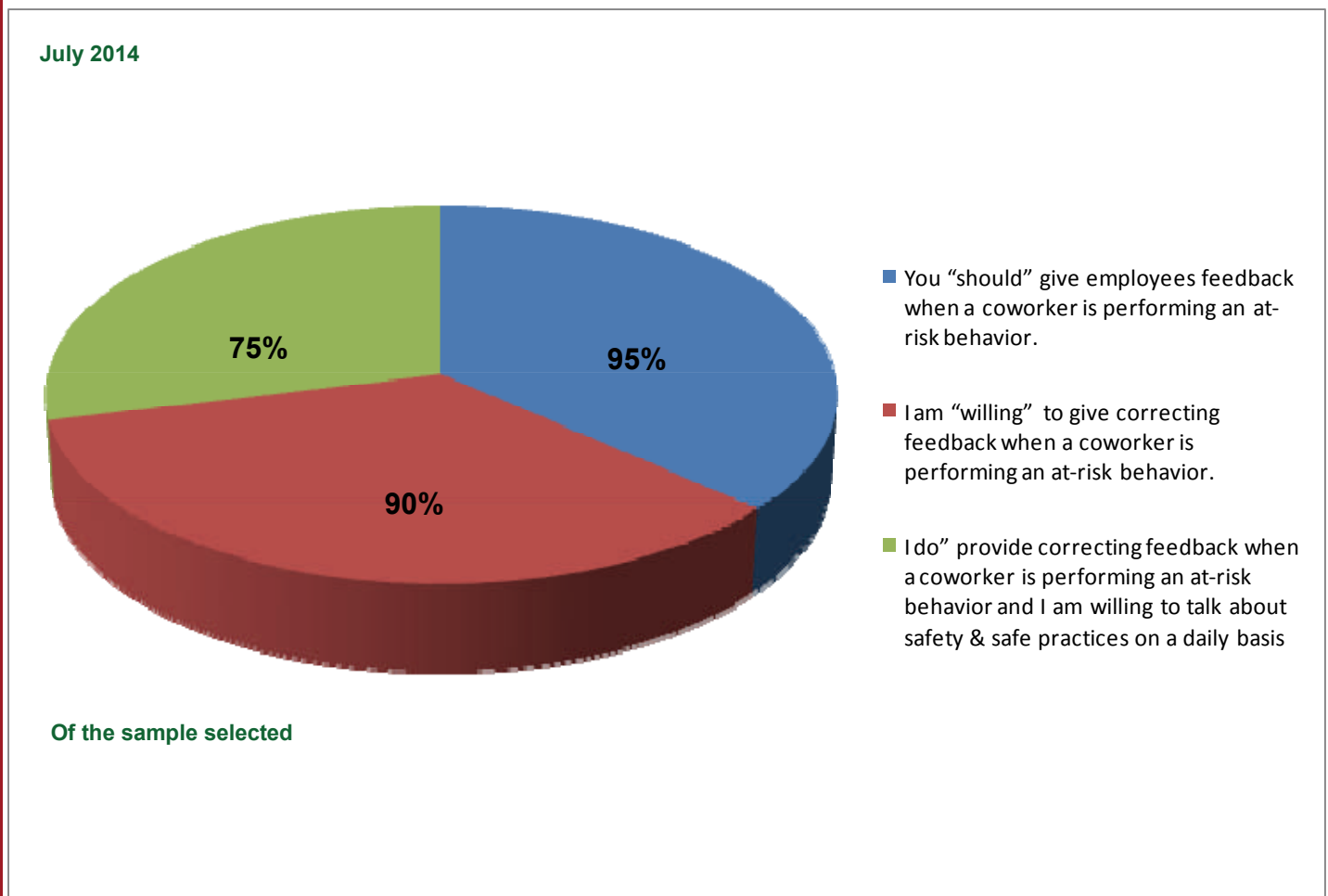
One of the communication issues we had addressed on the survey conducted during the launch of BBS in July , involved employees' opinions about cautioning coworkers "when observing them perform at-risk behaviors." Three items on the survey addressed this particular issue:

- *Employees should* caution coworkers when observing them perform at-risk behaviors.
- *I am willing to* caution coworkers when observing them perform at-risk behaviors.
- *I do* caution coworkers when observing them perform at-risk behaviors.

The first question assesses respondents' "**values.**"

The second question addresses employees' "**intentions.**"

The third question involves respondents' "**behavior.**"



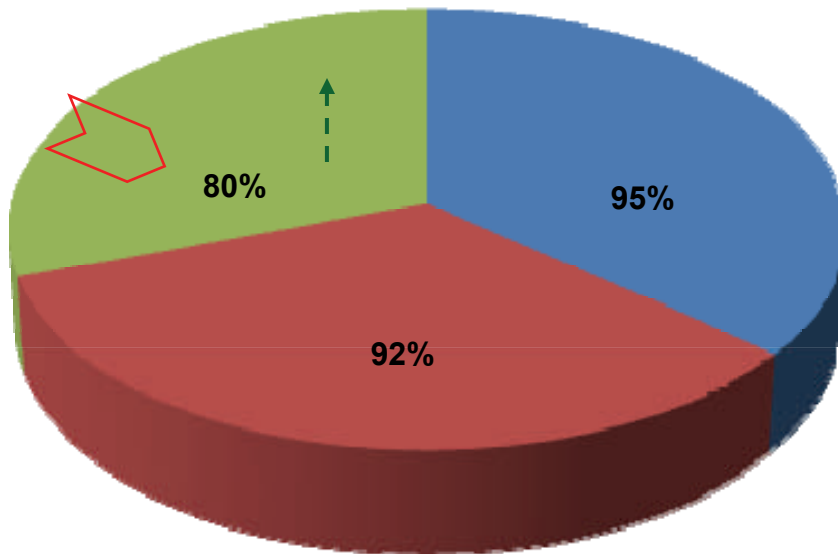
Approximately **95%** of employees agreed that you "should" give employees feedback when they are performing an at-risk behavior. Nearly **90%** of respondents reported that they are "willing" to give correcting feedback when a coworker is performing an at-risk behavior. Only about **75%** of respondents said they actually "do" provide correcting feedback when a coworker is performing an at-risk behavior and are willing to talk about safety & safe practices on a daily basis.

There is a difference between employees "values/intentions" and their actual "behavior" in terms of providing correcting feedback to others when they are performing at-risk behaviors.

Improvements Observed

Aug 2014 (Present)

Aug 2014



■ You "should" give employees feedback when a coworker is performing an at-risk behavior.

■ I am "willing" to give correcting feedback when a coworker is performing an at-risk behavior.

■ I do" provide correcting feedback when a coworker is performing an at-risk behavior and I am willing to talk about safety & safe practices on a daily basis

Of the sample selected

Approximately **95%** of employees agreed that you "should" give employees feedback when they are performing an at-risk behavior. Nearly **92%** of respondents reported that they are "willing" to give correcting feedback when a coworker is performing an at-risk behavior. About **80%** of respondents said they actually "do" provide correcting feedback when a coworker is performing an at-risk behavior and are willing to talk about safety & safe practices on a daily basis.

Clearly, it is observed that there has been a positive behavioral change and more & more employees are actually seen talking about safety & safe practices on the shop floor.

Common Responses

During on site coaching & training, we asked employees why there is a gap between our values (i.e., you “should” caution others) and behaviors (i.e., you “do” caution others) regarding correcting feedback.

Common responses included:

- If I give somebody feedback about a safety issue or keep talking about safety on a daily basis, there is every possibility that they’re going to get angry. I don’t want to cause problems or get yelled at.
- I’ve never given peer feedback before.
- I don’t know enough about that job to give feedback.
- I don’t want to give feedback to someone who has more experience than I do.
- I’m not sure I can give appropriate feedback.
- If I give somebody safety feedback, I’ll be accused of having a hidden agenda.

Our BBS Approach has helped break down these barriers by promoting more frequent, respectful, and open communication between employees. Employees are encouraged to use a behavioral checklist to observe coworkers and then provide both rewarding (e.g., “nice job”) and correcting (e.g., “be careful”) feedback.

Please refer to attached *‘Behaviour Observation Checklist’* on the next page. Our resources are being encouraged and hand held to use this checklist on a daily basis.

The idea is to institutionalize peer-to-peer safety feedback as a normal, established way of doing the tasks (with or without a checklist).

Planning Ahead

Operant conditioning process.

- Identify the specific or critical behaviour- these should be observable.
- Observe the behaviours and record the occurrences of desired and undesired behaviours.
- Conduct an analysis to determine the reason for deviation.
- Action interventions to correct the behaviour, using reinforcement or punishment.
- Evaluate effectiveness on a monthly basis.
- Create a BBS Steering Team to drive positive behavioral changes on the site.

BEHAVIOUR OBSERVATION CHECKLIST

Observer	Date		
Others	Others		
Behaviours (व्यवहार)	Safe (सुरक्षित)	At the Risk (असुरक्षित स्थिति/व्यवहार)	Comments (टिप्पणियाँ)
1) PPE's (Personal Protective Equipments)			
a) Head			
b) Eyes/ Face			
c) Hearing			
d) Hand			
e) Foot			
f) Protective clothing			
g) _____			
2) Tools/ Equipments			
a) Correct tools for the task			
b) Proper use of tools			
c) Tools in good condition			
d) _____			
3) Body Position/ Protection			
a) Lifting & Bending			
b) Reaching & Twisting			
c) Pushing & Pulling			
d) Neutral/ stable posture			
e) Line of Fire/ Pinch Points			
f) _____			
4) Housekeeping			
a) Slip Trip Hazards			
b) Orderly Storage			
c) Clear exits etc			
d) _____			
5) Pace of Work			
a) _____			
6) Communications			
a) _____			
7) Visual Focus			
a) _____			