

ORGANISATIONAL BEHAVIOUR MODIFICATION AND OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE IMPROVEMENT

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ABSTRACT:

In order to achieve best practice in occupational health and safety performance we must be able to design a workplace and workprocess which contain no hazardous exposures, implement a reliable, effective organisational system and then staff the resulting workplace with a fully trained workforce totally compliant with the designed workpractices and incapable of making mistakes. Most would believe that these goals are unachievable and many would contend that this is because of the human factor; human error, attitudes and compliance. If these are significant factors then, in order to maximise occupational health and safety performance some form of behaviour management is necessary.

Behavioural factors are often either neglected or addressed by ineffective or incomplete approaches, for example disciplinary or educational techniques. An effective approach to positive behaviour change is the most likely strategy in improving attitudes to workplace health and safety. Only when an organisation scrutinises the results of safe behaviour performance monitoring more closely than it does lost time injury frequency rates, and as closely as production data will it be able to justifiably claim a credible commitment to OH&S best practice.

A number of strategies are presented for consideration in the adoption of a policy directed to promote positive behaviours.

INTRODUCTION:

"Safety, like quality, improves when we improve the system, not when we hire more specialists to find defects or remove hazards. The quality of work like (safety) will improve when management views safety as the results of their management system rather than treating accidents as a special occurrence (cause) outside their management system".¹

Operating equipment and work areas can be designed to minimise the likelihood of accidents, but unless management actively supports an

accident prevention program, employees will not be sufficiently motivated to take it seriously. Employees must perceive that the organisational climate fosters a high level of concern with job safety. Several studies undertaken to measure perceived organisational attitudes towards safety indicate that the most important factor for the employees was management's commitment to safe job behaviour.²

Safety systems require implementation and unless the behaviour of the organisation, both management and workforce are committed to these systems they will produce less than optimal results.

BACKGROUND:

The Hawthorne Studies

In 1924 efficiency experts at Hawthorne, Illinois, plant of the Western Electric Company designed a research program to study the effects of illumination on productivity. At first, nothing about this program seemed exceptional enough to arouse any unusual interest. Yet by the time these studies were completed (a decade later), there was little doubt that the work at Hawthorne would stand the test of time as one of the most exciting and important research projects ever done in an industrial setting.

In the initial study, efficiency experts assumed that increases in illumination would result in increased production. Two groups of employees were studied, a control group, working under normal plant illumination conditions, and a study group, which worked under varying degrees of light. As lighting power was increased, the output of the test group went up as anticipated. Unexpectedly, however, the output of the control group went up also - without any increase in light.

Determined to explain these and other surprising test results, the efficiency experts decided to expand their research at Hawthorne. They felt that in addition to technical and physical changes, some of the behavioural considerations should be explored, so Elton Mayo of the Harvard Graduate School of Business Administration joined the study.

Mayo and his team started their experiments with a group of women who assembled telephone relays. For more than a year and a half the researchers improved the working conditions of the women by implementing such innovations as scheduled rest

periods, company lunches, and shorter work weeks. Baffled by the results, the researchers suddenly decided to take everything away from the women, returning the working conditions to the exact way they had been at the beginning of the experiment. This radical change was expected to have a tremendous negative psychological impact on the women and to reduce their output. Instead, their output jumped to new all-time high. Why?

The answers to this question were *not* found in the production aspects of the experiment (changes in plant and physical working conditions), but in the *human* aspects. As a result of the attention lavished upon them by experimenters, the women felt that they were an important part of the company. They no longer viewed themselves as isolated individuals, working together only in the sense that they were physically close to each other. Instead, they had become participating members of a congenial, cohesive, competent, and productive work team. The satisfaction and fulfilment associated with this changed attitude produced positive changes in behaviour which by themselves resulted in increased productivity.

Realising that they had uncovered an interesting phenomenon, they extended their research by interviewing more than twenty thousand employees from every department in the company. Interviews were designed to help researchers find out what the workers thought about their jobs, their working conditions, their supervisors, their company, and anything that bothered them, and how these feelings might be related to their productivity. The interviews proved valuable in a number of ways.

First of all, they were therapeutic; the workers got an opportunity to get a lot off their chests. Many felt this was the best thing the company had ever done. The result was a wholesale change in attitude. Since many of their suggestions were being implemented, the workers began to feel that management viewed them as important, both as individuals and as a group; they were performing unchallenging, unappreciated tasks. This technique is still used as a tool for implementing culture change in some organisations.

Second, the implications of the Hawthorne studies signalled the need for management to study and understand relationships among people.

In these studies, as well as in the many that followed, the most significant factor affecting organisational productivity was found to be the interpersonal relationships that are developed on the job, not just pay and working conditions. Mayo found that when informal groups identified with management, as they did at Hawthorne through the interview program, productivity rose. The increased productivity seemed to reflect the worker's feelings of competence - a sense of

mastery over the job and work environment. Mayo also discovered that when the group felt that their own goals were in opposition to those of management, as often happened in situations where workers were closely supervised and had no significant control over the job or environment, productivity remained at low levels or was even lowered.

These findings were important because they helped answer many of the questions that had puzzled management about why some groups seemed to be high producers while others hovered at a minimal level of output. The findings also encouraged management to involve workers in planning, organising, and controlling their own work in an effort to secure their positive cooperation.

According to Mayo, too many managers assumed that society consisted of a horde of unorganised individuals whose only concern was self-preservation or self-interest. It was assumed that workers were primarily dominated by physiological and safety needs, wanting to make as much money as they could for as little work as possible. Thus, management organised work on the basic assumption that workers, on the whole, were a contemptible lot. Mayo called this assumption the Rabble Hypothesis. He deplored the authoritarian, task-oriented management practices that it created. These practices indeed tended to be, in many ways demonstrated by Mayo, counter productive.³

Theory X and Theory Y

Mayo's Hawthorne findings and the Rabble Hypothesis were followed by the development of Theory X and Theory Y by Douglas McGregor⁴. According to McGregor, the traditional organisation - with its centralised decision making, superior-subordinate pyramid, and external control of work - is based upon assumptions about human nature and human motivation. These assumptions are very similar to the view of people defined by Mayo in the Rabble Hypothesis. Theory X assumes that most people prefer to be directed, are not interested in assuming responsibility, and want safety above all. Accompanying this philosophy is the belief that people are motivated by money, fringe benefits, and the threat of punishment.

Managers who accept Theory X assumptions attempt to structure, control, and closely supervise their employees. These managers feel that external control is clearly appropriate for dealing with unreliable, irresponsible, and immature people.

McGregor concluded that Theory X assumptions about human nature, when universally applied, are often inaccurate and that management approaches that develop from these assumptions may fail to motivate many individuals to work toward organisational goals. Management by direction and

control may not succeed, according to McGregor, because it is a questionable method for motivating people whose physiological and safety needs are becoming predominant.

McGregor felt that management needed practices based on a more accurate understanding of human nature and motivation. As a result of his feeling, McGregor developed an alternate theory of human behaviour called Theory Y. This theory assumes that people are *not*, by nature, lazy and unreliable. It postulate that people *can be* basically self-directed and creative at work if properly motivated. Therefore, it should be an essential task of management to unleash this potential in individuals. Properly motivated people can achieve their own goals *best* by directing *their own* efforts toward accomplishing organisational goals. This assumption of the potential self-motivation of people necessitates a recognition of the difference between attitude and behaviour. Theory X and Theory Y are attitudes, or predispositions, toward people. Thus, although the "best" assumptions for a manager to have may be Theory Y, it may not be appropriate to behave consistent with those assumptions all the time. Managers may have Theory Y assumptions about human nature, but they may find it necessary to behave in a very directive, controlling manner (as if they had Theory X assumptions) with some people in the short run to help them "grow up" in a developmental sense, until they are truly Theory Y people.

The latter type of Y manager attempts to help employees mature by exposing them to progressively less external control, allowing them to assume more and more self-control. Employees are able to achieve the satisfaction of social, esteem, and self-actualisation needs within this kind of environment, often neglected on the job. To the extent that the job does not provide satisfaction at every level, today's employee will usually look elsewhere for significant need satisfaction. This helps explain some of the current problems management is facing in such areas as turnover and absenteeism. McGregor argues that this does not have to be the case.

Management is interested in work, and McGregor feels that work is as natural and can be as satisfying for people as play. After all, both work and play are physical and mental activities; consequently, there is no inherent difference between work and play. In reality, however, particularly under Theory X management, a distinct difference in need satisfaction is discernible. Whereas play is internally controlled by the individuals (they decide what they want to do), work is externally controlled by others (people have no control over their jobs). Thus, management and its assumptions

about the nature of people have built in a difference between work and play that seems unnatural. As a result, people are stifled at work and hence look for excuses to spend more and more time away from the job in order to satisfy their esteem and self-actualisation needs (provided they have enough money to satisfy their physiological and safety needs). Because of their conditioning to Theory X types of management, most employees consider work a *necessary evil* rather than a source of personal challenge and satisfaction.

Increasing Interpersonal Competence

Even though management based on the assumptions of Theory X is perhaps no longer widely appropriate, in the opinion of McGregor and others, it is still widely practiced. Consequently, a large majority of the people in the workforce today are treated as immature human beings in their working environments. In attempting to analyse this situation, Chris Argyris,⁵ has compared bureaucratic/pyramidal values (the organisational counterpart to Theory X assumptions about people) that still dominate most organisations with a more humanistic/democratic value system (the organisational counterpart to Theory Y assumptions about people).

According to Argyris, following bureaucratic or pyramidal values leads to poor, shallow, and mistrustful relationships. Because these relationships do not permit the natural and free expression of feelings, they are phoney or nonauthentic and result in decreased interpersonal competence. "Without interpersonal competence or a 'psychologically safe' environment, the organisation is a breeding ground for mistrust, intergroup conflict, rigidity, and so on, which in turn lead to a decrease in organisational success in problem solving."

If, on the other hand, humanistic or democratic values are adhered to in an organisation, Argyris claims that trusting, authentic relationships will develop among people and will result in increased interpersonal competence, intergroup cooperation, flexibility, and the like and should result in increases in organisational effectiveness.

Argyris conducted a one-year experiment during which each of the workers in the study group would assemble the total product in a manner of their own choice instead of it being produced on a production line basis. At the same time, each worker would inspect, sign their name to the product, pack it, and handle any correspondence involving complaints about it. The workers were assured that they would receive no cut in pay if production dropped but would receive more pay if production increased.

Once the experiment began, production dropped 70% during the first month. By the end of six weeks it was even worse. The workers were upset - moral was down. This continued until the eighth week, when production started to rise. By the end of the fifteenth week production was higher than it had ever been before. And this was without an inspector, a packer, or an industrial engineer. More important than increased productivity, costs due to errors and waste decreased 94%; letters of complaint dropped 96%.

Although all workers do *not* want to accept more responsibility or deal with the added problems responsibility inevitably brings, Argyris contends that the number of employees whose motivation can be improved by increasing and upgrading their responsibility is much larger than most managers would suspect.

Motivation-Hygiene Theory

Herzberg ⁶, in developing his motivation-hygiene theory, seemed to sense that scholars such as McGregor and Argyris were touching on something important. Knowledge about human nature, motives, and needs could be invaluable to organisations and individuals: To industry, the payoff for a study of job attitudes would be increased productivity, decreased absenteeism, and smoother working relations. To the individual, an understanding of the forces that lead to improved morale would bring greater happiness and greater self-realisation.

A series of interviews was undertaken identifying job factors (Table 1) producing feelings of satisfaction and dissatisfaction. Dissatisfaction arose from environmental, or *hygiene factors* while *motivators* seemed responsible for producing improved performance

Hygiene (Maintenance) Factors

Company policies and administration, supervision, working conditions, interpersonal relations, money, status, and security may be thought of as maintenance factors. These are not an intrinsic part of a job, but they are related to the conditions under which a job is performed. Herzberg related his original use of the word *hygiene* to its medical meaning (preventive and environmental). He found that hygiene factors produced no growth in worker output capacity; they only prevented losses in worker performance due to work restriction. This is why, more recently, Herzberg has been calling these maintenance factors.

Motivators

Satisfying factors that involve feelings of achievement, professional growth, and recognition that one can experience in a job that offers challenge and scope are referred to as motivators. Herzberg used this term because these factors seem capable of having a positive effect on job satisfaction, often resulting in an increase in one's total output capacity.

TABLE 1. Motivation and Hygiene Factors

Motivators	Hygiene Factors
The Job Itself	Environment
Achievement	Policies and administration
Recognition for accomplishment	Supervision
Challenging work	Working conditions
Increased responsibility	Interpersonal relations
Growth and development	Money, status, security

THE PRACTICE:

Organisational Culture

OHS researchers are now more frequently identifying and analysing the social aspects of organisational practice which affect OHS outcomes. This parallels changes in organisational theory, in which corporate culture is becoming increasingly important to both understanding and creating organisational change. Culture within an organisation is more than just the ethnic background of the workforce (although this is very important). It is also about the shared values, beliefs and norms of the enterprise. Different

performance imperatives can have different associated values, beliefs and norms. Occupational health and safety culture, then, is the system of shared values and beliefs about OHS which create behavioural norms which guide OHS activities in the enterprise. ⁷

This develops over time and is often a reflection of the leadership, structure, policies and resulting performance of an organisation. These factors, to a significant extent influence the attitude of the workforce. These attitudes or ideas have an affective, or emotional component and typically result in some form of behaviour.⁸ This behavioural response should be the main target for

change as it is the behaviour rather than the attitude which most likely contributes to safety performance; "actions speak louder than words". Positive safety behaviour and its resultant improved performance is likely to result from a positive attitude towards management, which in turn will most likely result from a management commitment and support of a policy of best practice in OH&S matters.

Management Commitment to OH&S - Best Practice vs. Regulatory Compliance

The Best Practice Approach

Best practice first entered the Australian management jargon in 1991 fostered by the now completed Australian Best Practice Demonstration Program, administered jointly by the Department of Industrial Relations and the now closed Australian Manufacturing Council.

"The cooperative way in which firms and their employees undertake business activities in all key processes - leadership, planning, people, customers, suppliers, community relations, production and supply of products and services, and the use of benchmarking. These practices, when effectively linked, can be expected to lead to sustainable world class outcomes in quality and customer service, flexibility, timeliness, innovation, cost and competitiveness."⁹

It is clear that occupational health and safety impacts on each of these key areas.

The paradigm of organisation effectiveness in leading enterprises is based on four fundamental changes.

Positive assumptions are made about individual workers.

The team or group becomes the basic building block for organisational structures.

Organisations learn and are open to both continuous and breakthrough change.

The number of levels in management hierarchies tends to fall and authority and responsibility become decentralised.

The idea of worker empowerment has emerged as central to the effective implementation of these changes.

The Culture of Compliance

The push for quality and best practice comes from companies at the leading edge of industry. At the other end of the scale there is the other group, the "laggers", whose members need guidance (or a crisis) to enable a successful move towards best practice. These enterprises are barely able to keep up with the body of legislation with which they must comply; at best they have a "compliance culture."

We see a creeping militarism in the management of audits and their implementation in organisations. The symptoms are a trend away from encouraging people to think in problem-solving terms and a shift towards the compliance culture. A trend towards complicated and paper-heavy occupational health and safety systems and away from simple, consultative or team based models is occurring. Ultimately this is planning for mediocrity and it will inevitably achieve second best.¹⁰

Regulations are often developed in a reactive fashion and as a result of acceptable consensus. Because of this they are, quite rightly, considered by many, as minimal acceptable standards and certainly not best practice. They often do not even guarantee safe exposures or practices. For these reasons compliance with regulatory standards as a goal for safety within an organisation is viewed by the workforce as an acceptance by management of minimum standards - usually less than second best. "Working 9 to 5, what a way to make a living. Barely getting by, it's all taking and no giving", this attitude as expressed by Dolly Parton is unlikely to result in commitment of the worker to regulatory compliance let alone best practice.

Management Support

Direct active management involvement at the highest level, provision of comprehensive and accessible resources in the form of equipment, staff and information is a tangible demonstration of management commitment to OHS best practice.

A central feature of any OHS management system is education. Ensuring that everyone in an enterprise understands the OHS system and has the competencies to make a positive contribution is a self-evident feature of OHS best practice.

Adults learn best when:

- they know how they can use the learning;
- they are involved in deciding how they will learn;
- they can related the learning to their own experience;
- the learning is organised around their current needs; and
- the learning process is responsive to different needs of individuals.

Traditionally, OHS training has not been provided in a way consistent with these principles. Instead, traditional OHS training has "told" people what technical experts identified as their needs, primarily consisting of telling them what they were doing wrong. If these practices are improved then workplace learning can become a key strategy for facilitating participation in OHS management.

Clearly, this is the case for training for committees and OHS representatives.¹¹

Behaviour modification can be an effective technique for safety training. This involves teaching safe ways to perform particular tasks through film presentations, discussion groups, and lists of reminders. Workers are then provided with feedback indicating the groups current percentage of safe job behaviours and provided with an acceptable goal. Job performance is observed and compliance to agreed behaviours was measured and periodically provided as feedback data. Positive reinforcement is usually administered by supervisors and senior management.

Supervisors play a key role in any successful program for safety training and awareness. More than any other management level, supervisors, because of their close association with workers must be alert to unsafe conditions and work practices. Supervisors are in the best position to remind employees of safe working habits and arrange proper maintenance of equipment and the work environment. They are also able to recommend when training is advisable. If supervisors do not insist on adherence to safe working procedures, then any safety training program will be less than maximally effective. By example as well as instruction, supervisors can maintain employee motivation to work safely and prevent accidents.

However supervisors cannot be expected to practice safety awareness unless their superiors reinforce their concerns. If management tolerates sloppy accident reporting or expresses even a neutral attitude towards safety, this does not encourage or reinforce attention to safe practices. Active high level management support of safety is a key dimension of a appropriate organisational climate. All levels of supervision must demonstrate to subordinates that safety is everyone's responsibility.¹²

CONCLUSIONS / RECOMMENDATIONS:

Safe behaviour by the worker and its encouragement by the organisation is an integral requirement in achieving best practice in occupational health and safety performance.

Considerations in improving OH&S performance

- Identify and strive for best practice
- Focus on changing behaviour not attitudes.
- Involvement of the worksite
- Implement a participative system of OH&S management

- Support that system from the highest level of management
- Resource the OH&S system
- Implement risk control measures
- Identify Safe behaviours
- Define and describe safe behaviours
- Monitor performance
- Evaluate the process

Prescriptive legislation usually identifies the lowest acceptable level of achievement not the highest level of performance. If you achieve best practice and maintain it you don't have to worry about complying with prescribed legislative standards. Legislative compliance auditing promotes mediocrity, and mediocrity breeds apathy and contempt.

Only when an organisation scrutinises the results of safety performance monitoring as closely as it does production data will it be able to justifiably claim a credible commitment to OH&S best practice. It is up to us, as occupational health and safety practitioners, to make it known to those in power in our enterprises that occupational health and safety is of fundamental importance to the health not only of the employees in the enterprise, but also to the long term, overall health of the enterprise.

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