# IMPROVING CONSULTATION AND WORKER ENGAGEMENT IN THE CONSTRUCTION INDUSTRY

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**Abstract:** The industrial revolution has resulted in the traditional construction craft organisational model being replaced with one that precludes most site operatives from planning the work they will do. Worker engagement has been found to have a positive impact on worker performance, including safety, in many industries. Despite this not enough construction employers properly involve and consult their workers on health and safety. This paper reports on a 12 month, Contract Research Report on behalf of the United Kingdom's Health and Safety Executive. The aim of the research is to research the practice of worker engagement in the management of construction health and safety. The primary hypothesis to be tested is: Operative engagement in health and safety management has a direct and positive impact on health and safety performance. This is being tested through a series of case study, intervention strategies, using various approaches to worker engagement. Initial findings from four industry workshops are discussed along with the implications of these for the fieldwork stage of the research.

**Keywords:** Consultation, Engagement, Health, Safety, Worker

## 1. INTRODUCTION

Historically, construction has been performed using a craft model of organisation in which the planning of the work process in terms of determining what is to be produced; how it is to be produced, where it is to be produced; when it is to be produced; who is to produce it; and what constitutes acceptable quality and quantity output is integrated with the actual performance of the work. The Industrial Revolution resulted in the separation of these activities in industries other than construction in the early nineteenth century. It wasn't until late in that century and the early twentieth century that the separation occurred in the construction industry. This shift resulted in construction organisations (other than the very smallest ones) being divided into three functions: business, production related staff, and field production. As a result of differences in education, training, and experience, production staff personnel have very different perspectives on the work and its accomplishment than that of the field production staff (site operatives).

Consequently, construction planning is accomplished with little input from site operatives. This process may be ignoring the wealth of knowledge and experience possessed by site operatives, which is a tremendous waste. In the United States, many older construction managers refer to operatives as "hands." However, when a firm hires an operative for his hands, it also hires his brains. The operative has the knowledge and experience to contribute to an improved process plan for the accomplishment of the work.

This paper reports on a 12 month, £98,500 Contract Research Report on behalf of the United Kingdom's Health and Safety Executive. The aim of the research is to research the practice of worker engagement in the management of construction health and safety.

Worker engagement does not occur within a vacuum; it occurs within an organisational environment that is strongly influenced by the management beliefs, structure, and processes of the organisation. Worker engagement will not occur when the management of a firm employs a command and control approach to management. Management commands and workers comply. It is imperative that management is receptive to and desirous of worker engagement. The Keil Centre developed a model of safety culture maturity model that represents the necessary transformation of management to a style that honestly cultivates worker engagement, and facilitates a step change (Fleming 2001).

It is necessary at this point to recognise that in the construction industry management exists at two levels: home office management and project management including foremen. The top management of the firm operates at the home office level. In many cases, top management has given unqualified support to worker engagement and then charged project management with implementing it. Many times this has resulted in failure because worker engagement is threatening to many project management level people (Walters et al 2005, ECOTEC 2005). They perceive it as giving up control or even question the value of it. It is crucial to assess management's beliefs, structure, and processes to determine whether it promotes and encourages engagement or, whether it frustrates it.

In the past twenty years, industry, adopting Japanese manufacturing methods, has begun to integrate the planning and doing functions again. High performance and self-managing are terms applied to integrated work teams. The common thread running within these approaches is worker engagement. Organizations employing worker engagement tend to experience greater productivity, lower absenteeism and turnover, fewer accidents and fatalities, and all around better performance (Biggins et al 1991), see also: Grunberg (1983); Quinlan (1996); Simard & Marchand (1995).

Recent history reveals effort in the UK to advance worker engagement in health and safety. Beginning with legislative efforts in the 1970s, worker engagement has been advanced as an approach to improving health and safety performance in industrial settings. Namely the Safety Representatives and Safety Committees Regulations (1977) and the Health and Safety (Consultation with Employees) Regulations (1996) have been promulgated by the Health and Safety Executive (HSE) to directly address involvement, consultation, and the sharing of information with regard to health and safety. Despite this "not enough employers properly involve and consult their workers on health and safety and there are not enough workers who feel able to come forward and take on health and safety responsibilities" (HSC 2004). In addition to this the Construction Design and Management Regulations (Regulation 18) requires management to obtain "views of workers". Similarly, only 3 improvement notices have been served regarding CDM Regulation 18, which would indicate that guidance on "what constitutes improved worker engagement" would benefit HSE inspectors greatly in this respect.

Evidence shows that union safety representatives often lead to higher levels of compliance and better health and safety performance than non-trade union systems (Litwin 2000), although the vast majority of the UK workforce is non-union. Recent developments include the 'Worker Safety Adviser Fund' which has seen greater involvement from trade unions, however this may be tending towards 'worker representation' rather than 'direct' worker engagement. Furthermore, due to the low representation of unions in construction, no more than 15% (Walters et al 2005), other mechanisms need to be in place to drive this legal requirement. The two approaches of union representation and direct worker engagement are not mutually exclusive; they can complement one another with each being effective in particular situations.

The question that prompted the research being reported in this paper flows directly from the Construction Industry Advisory Committee (CONIAC) declaration for worker engagement in the construction industry, which is "Can worker engagement be employed in construction to secure improved performance?" (HSC 2004). The construction industry has very different product, production, and employment characteristics than other industries. Consequently, techniques and approaches utilized with success in other industries have failed when employed in construction. Given the unique characteristics of the industry, its products, and its workforce, the primary problem of interest is whether approaches or techniques of worker engagement can be developed for the construction industry that will secure improved H&S performance.

## 2. RESEARCH OBJECTIVES & METHOD

The objectives for the research are to:
1. Review the literature to identify approaches, models, and techniques of worker engagement.
2. identify the characteristics of construction that influence the effectiveness of worker engagement
3. to develop approaches of worker engagement for the construction industry
4. to evaluate these approaches for viability in the industry
5. to test the effectiveness of these approaches in securing worker engagement
6. to determine the impact of the various approaches for securing worker engagement on health and safety performance (Risk Reduction) as well as on other measures of performance such as productivity, absenteeism, turnover and reputation.
7. determine the impact of the approaches on worker perceptions of engagement and well-being
8. To assess whether the management structure and processes impact on the viability of worker engagement (management maturity), with particular focus on the commitment of middle management at site/project level.

The methods to be employed in the research, subsequent to a literature review and initial industry consultation, will involve the development of 'intervention packages' to implement on several case study projects. These will be based on existing examples of best practice observed elsewhere out with and within the industry. Collaborating industry partners have agreed to implement the intervention packages on their projects. Each partner organisation will implement one package and will also provide access to a second project of similar size, scope and nature which will represent a 'control' project

being run using existing processes. In order to test the effect of each intervention package 'before' and 'after' measures will be taken. Similar measures will also be taken at the control site.

A key measure will be the impact of each intervention on how H&S issues are dealt with, how management responds and what perceptions the workers have of management's attitude to H&S. in addition to this, each collaborating organisation will also collect H&S performance measures on an ongoing basis as part of their own Safety Management System e.g. site audits, measures of near misses, accidents, injuries etc. follow-up interviews will also be carried out where evidence shows existence of improvements elsewhere e.g. productivity or quality.

The industry partners are main contractors appointed to undertake refurbishment and new-build works for an international bank throughout the UK. The fieldwork will involve several steps in order to implement each intervention package. These steps broadly fall into five categories:

1. A short training programme on the approach to be used;
2. Implementation of the approach, by contractor staff;
3. Worker participation during the implementation;
4. "Before and after" interviews of workers and managers, to determine perceptions of the worker engagement safety programme and its impact on all health and safety issues;
5. Group interviews with management in "before" and "after" measures of safety performance.

## 2.1 Training programme

The training in the approach to be used will be given by a member of the research team to the site management team. This initial training will take no more than 1 ½ hours per site management team.

## 2.2 Implementation

Management will make whatever arrangements required for implementing the approach. This will be part of the initiation of normal site safety systems and should not require significant additional duties. The manager responsible for site induction will then introduce the approach to new workers as part of each site induction meeting. Communication of the instructions for workers will take less than 30 minutes per induction.

## 2.3 Worker participation.

The actual participation by workers during the course of each project will be designed to integrate with normal worker communication and the safety input will not normally require more than a few minutes at regular intervals, depending on the approach used.

## 2.4 "Before" and "after" interviews

These will cover perceptions of the workers before and after the intervention. The worker will complete a questionnaire at the beginning of the induction, and then again, sometime after exposure to the new approach. The exact questions will be developed through the course of the research; however, an upper limit of 15 minutes to complete the questionnaire will be set.

## 2.5 Discussion of safety performance

Records of safety performance, probably using existing measures, will be collected, to test whether there has been any direct impact of the intervention on site safety. Use of existing measures will avoid any additional burden on site management. However, a final close-out meeting with the site manager to discuss the overall impact of the intervention will be sought. This should take no more than 1 hour per site.

# 3. PROGRESS TO DATE

The literature search yielded a number of approaches to worker engagement as shown in Figure 1.
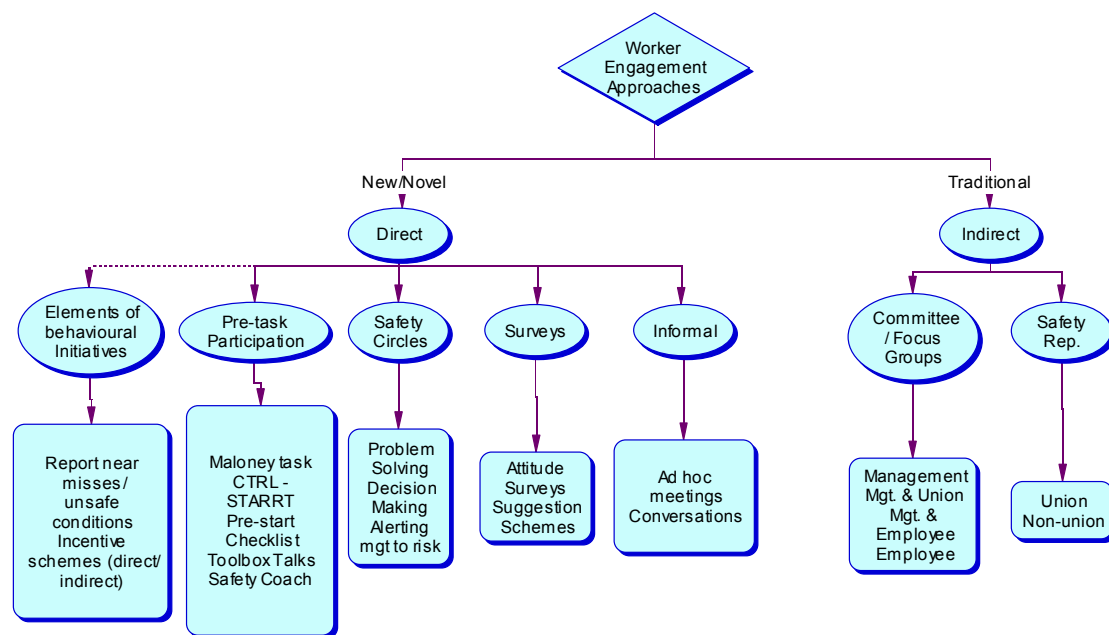


**Figure 1:** Approaches to Worker Engagement

Traditional approaches to worker engagement are enshrined in the legislation regarding consultation with employees as described earlier. These are namely safety representatives, who may or may not be appointed by a union; and safety committees, these can have several permutations of management and employee representation. These have been termed 'indirect' as shown in Figure 1. Other approaches identified inclued informal; surveys; safety circles; pre-task briefings; and elements of management lead behavioural initiatives.

Informal approaches consist of ad-hoc meetings or conversations, usually initiated by management when walking through the site, at break-times or even during conversations regarding the work to be done.

Surveys have been used to collectively describe any means of communication through paper-based media, usually without direct contact, but, none-the-less has the ability to reach every worker and can provide anonymity.

Safety circles consist of volunteers who come together for the purpose of solving specific problems. They differ from a safety committee in that they do not have to meet at regular intervals. They are subsequently 'dissolved' after each meeting until another problem arises that needs a solution. This is essentially a reactive approach but could be developed to be more proactive.

Pre-task briefings are instigated at the beginning of a shift or task or when something changes that will affect the worker. It essentially consists of discussing the work to be done and asking the worker to compare the risk assessment controls and method of work with the actual task in hand. Feedback is not restricted to the task in hand and the worker is invited to also discuss any H&S issue they desire.

There are certain elements of behavioural initiatives that can also be considered as worker engagement. For example incentive schemes to encourage workers to get involved in H&S and requirements to report unsafe conditions, near misses etc. are also useful.

These various approaches were presented at an industry workshop, held September 2005 in Glasgow, to gain feedback on specific issues uncovered during the literature search. This involved over 80 participants from a varied cross-section of the industry and although the event was held in Scotland there were a number of delegates from all over the UK. Issues were discussed in four workshop groups:

**Table 1:** Findings of industry workshop on worker engagement

|  | **WHAT WORKS** | **BARRIERS** | **MEASURES** |
|---|---|---|---|
| **Safety committees** | Workers<br>Union sites<br>Client commitment<br>Empowered | Lack of trust/apathy<br>Fails to work<br>Intimidation<br>Small Sites | Resources<br>Influence decisions<br>Who<br>Outstanding issues |
| **Union Safety Representatives** | Soft approach<br>Local Government<br>TU Training<br>Team approach | Migrant workforce<br>Finance<br>exclusive<br>Combined approaches | Was not discussed. |
| **Direct Management approaches** | Training<br>Feedback<br>Demonstration<br>Communication skills<br>Motivation | Workers reluctance<br>Trade Union<br>Blame Culture<br>Traditional Contracts | Test<br>Whistle blowing<br>Survey<br>Feedback |
| **Informal approaches** | Workers self ownership<br>Non-financial rewards<br>Listening<br>Self Policing/Auditing | Reluctance<br>Suspicion of<br>management<br>Peer Pressure | Suggestions<br>Responses |

1. Safety committees
2. Union Safety Representatives
3. Direct Management approaches
4. Informal approaches

The results of this exercise were categorised into 'what works' 'barriers' (and where possible solutions) and 'measures' (what could be measured to determine success). The results are summarised in Table 1 and discussed further below.

## Safety committees

It was agreed by this group that improved communication was the greatest single potential benefit of H&S committees. The act of "getting people talking" was thought to be very positive. Therefore giving everyone an equal voice was seen as paramount. The group agreed that the more workers that attend the better. A preferred ratio was agreed to be at least 4 workers to 1 manager. Union sites were noted as having more workers willing to volunteer compared to non-union sites. Client commitment i.e. money and a willingness to co-operate with issues that the client has influence over was discussed. Although it was commented that there are good clients that do not get involved with H&S committees. Empowered committees work best, this could be via management commitment.

Barriers discussed included a lack of trust or apathy, especially when concerns and issues "fall on deaf ears" and "nodding dogs" fail to act. This can be overcome through delivery of results by management when issues are raised i.e. closing out issues. The committee may fail to work; either the committee achieves nothing (as mentioned above) or is frustrated by individuals with other agendas, including "general complaints". A solution put forward by the group to combat this was to measure performance. This is discussed in more detail below. Intimidation was seen as a problem, whether real or only perceived, it was acknowledged that workers can sometimes feel intimidated by managers on committees. As discussed above, it was suggested that the 4:1 ratio of workers to managers could help alleviate this problem. Small Sites were seen as needing a slightly different approach; at a certain level a formal committee is too cumbersome (the level of this "threshold" could not be determined by the group); it was suggested that an "open door" policy works better on small sites; as well as informal meetings, possibly as part of a "site walk".

Several issues were discussed regarding 'measurement'. Outstanding issues were seen as the most vital unit to measure. More specifically, percentage of outstanding issues to those closed out and type, as well as number of issues e.g. are just minor issues being dealt with? The influence on decisions was seen as an indicator of success. It was suggested that evidence of an audit trail from issues being raised to final decisions could be part of a review. There is invariably someone within effective H&S committees who drives it and champions H&S. the personality of the individual is key. If someone is identified to hold responsibility for the committee they can be measured to ascertain the committee's performance. Resources were discussed, as mentioned earlier regarding clients; the group acknowledged that support (such as administration) is required to assist the committee. The level of resources in relation to the job could be measured.

**Union Safety Representatives**

Discussion covered "soft" approaches, which have been successful in getting people involved in safety. Local Government have been seen to promote worker participation, however experience of main contractors and SME's was far less evident. TU Training of Safety Representatives (SR's) was seen as best practice. However the decline of TU membership in recent years has not helped. A team approach, (TU working in partnership with management) has been successful. This was recommended as a way forward.

Regarding barriers the group discussed migrant workers as a concern with regard to safety. The issue was the question "Do they need representation more than others?" Finance seamed relevant where SR's are concerned, it was claimed that there is not enough finance in budgets for SR's. Union SR's were seen as being somewhat exclusive. The issue of representation being held with one person places more emphasis on the character of that individual. Some group members commented that combined approaches (TU and non-TU) tend to lead to conflict, due to different objectives of each. Possible measures were not discussed by this group.

**Direct Management approaches**

Training was discussed as a key issue, provision of information was agreed to be the first step to training and educating the workforce. The information needs to be relevant. It was agreed that a feedback loop is required and a mechanism needs to be in place for this. This involves both the direct and indirect forms of communication and the means to act on it. Other issues included a demonstration of what is required; use of live case-studies has worked on previous projects; communication skills are essential for the delivery of any management lead initiative, this is an area commonly overlooked in construction. It was also suggested that there should be less use of jargon. Motivation of the workers was seen as essential, including use of incentives "carrots".

Barriers discussed included workers reluctance to get involved in initiatives instigated by management; Trade Union suspicion of management lead initiatives; a blame culture where senior management and/or peers, who believe the programme and budget or cost are the main drivers for a project over people issues; and traditional contracts that "normally assist in transferring the risk from the main employers (Client's and Principal Contractor's) to the sub and sub-sub contractors".

Things to measure discussed by this group included testing the workers and their supervisors individually on the process through demonstrations, basic written tests or observations. Also just as important is higher up the chain their senior management, who should be measured on their attitudes and values. Whistle blowing was also discussed, i.e. number of safety failures reported by workers, although this has failed in the past due to workers 'staging' an unsafe condition to report it for praise or incentives. Surveys were discussed i.e. survey and sample the means of Communication, Consultation, Co-operation, Collaboration, the Climate, the Culture, the Commitment, the Competency, the Control and Reporting from and with all levels of the workforce. The group also agreed that feedback could be measured as an indicator of success. This could be both quality and quantity measures.

**Informal approaches**

Workers self ownership of H&S was discussed by this group as helping them to be more pro-active and get involved on interventions where management merely provide support. Non-financial rewards were seen as a far better way of maintaining sustained performance. This should not be confused with 'no financial commitment' by management. In the case discussed financial support was given to reward favourite local charitable causes, in return for sustained H&S performance. Listening was seen as a key issue. Workers need managers to actively listen, understand and respond to what they are saying. This highlighted a need for "soft-skill" training for managers. Self policing or auditing, which is similar to self ownership, was seen as a good way of gaining worker commitment.

Barriers discussed by this group included reluctance of workers to get involved, possibly stemming from a 'not my job' attitude; suspicion of management having ulterior motives; and peer pressure from other workers unwilling to participate.

Measures discussed by this group echoed those above. Suggestions made by workers (number and quality) were discussed. Responses of workers to safety interventions and by management to worker suggestions (number and quality) were also discussed.

# 4. DISCUSSION

The findings from the industry workshop groups highlight both specific and generic issues. The specific issues have already been covered above; however, there are some obvious overarching issues that can be seen in the findings of each group.

Training will need to be part of any intervention. This has already been identified in the fieldwork design. However, specific reference has been made to 'soft' skills, which will need to be addressed. Therefore reference to communication skills and man-management skills will need to be a feature of the management training exercise.

Suspicion from all quarters e.g. workers, management and trade unions was clearly evident from the workshop findings. A challenge for the research team will be how to create an open environment on the case study projects. This is being addressed through initial meetings with key personnel from the industry partners.

The reluctance of some workers to be engaged needs to be acknowledged. Although every effort will be made to allow workers to get involved it has been established that no coercion should be used by management.

A key issue that every intervention package will need to address is the ability to facilitate two way communication. This was evidenced in the responses to 'measures' in particular the repeated reference to a need for recording numbers of worker suggestions, recommendations or general issues; and the number of responses by management, issues closed out or outstanding etc. Further, it was obvious that the type of issues, i.e. important or superficial, should be recorded.

These findings will now feed into the next stage of the research, which is the fieldwork case studies. At present four 'intervention packages' have been identified for implementation these are:

1. Pre-task briefings with elements of behavioural safety initiatives
2. Suggestion schemes with safety circles
3. Safety representative with H&S committee
4. Informal approach using 'safety coaches'

The fieldwork will take place over the next six months and a final report will be submitted to HSE by the summer of 2006.

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