STUDYING SITE MEETINGS IN PROJECTS

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The necessity for good communications within the construction industry has long been acknowledged because of the complexity of its product and the fragmentation of its process. This has generated much research into seeking improvements. However, much of this research has focussed on: firstly, understanding the processes of design and construction, and secondly to changing these processes to a theoretical improved process model. The research reported here starts at a different place by accepting the current processes and inquiring into how they operate so that they can be improved. Of particular interest here is the 'site meeting', which are a universal activity in the industry and which has become automatic rather than instrumental. It was considered that 'site meetings' had become iconic and not just functional so that their role and value in communications and decision making was confused. The research involved a pilot study of a small number of case study meetings and also undertook a small number of interviews with industry personnel. The results demonstrate that site meetings perform many functions in projects many of which are non explicit. Clearly the role of site meetings in communications is still important, but, the non explicit areas need to be considered when trying to improve the operation of meetings.

Keywords: communication, meetings, objectives, project management.

INTRODUCTION

Meetings are an endemic part of the operation of any business. The essence of meetings is communications between individuals in some collective enterprise, which brings the knowledge and skills of several individuals together. Out of the 65% of managers' time used in communication, 20% is used in meetings and 16% in face-to-face meeting (Maude, 1975). It is therefore clear that improving meetings and the communication ability for managers would be a tremendous boost to managerial performance. As with all interactions between people, meetings concern two areas: the task and the group processes (Melvin 1979). The task involves the objectives of the meeting, which might be to transfer information, or to make a decision i.e. transform information, or to problem solve i.e. create information. However, acknowledged explicitly or not meeting are affected by and affect the social relationships between people. It is this area that is referred to as the group processes which concerns how people worked together and how they felt about it. Although formal meetings are often set in a procedural manner, aimed at achieving the stated objectives (Chappell and Willis 2000), the problems of hidden agendas, mistrust, suspicions, and power struggle among the team members affect the relationships, leading to poor communication (Melvin 1979). All these hinder the process of meetings, making them ineffective as platforms of information exchange. In addition to the hidden costs of unsuccessful meetings, Harold Reimer, (as quoted by Boyle and Straus, 1982), estimated that the direct cost of time lost recovering from ineffective meetings- i.e. recovery syndrome- amounts to £600,000 per year for every 1000 workers in the

United States. But the benefits of a good meeting in team building, improving communication, and raising morale, normally lead to improved (or at least sustained) productivity. The delivery of projects involves complexity because of the number of components, the uniqueness of design in particular locations and the numerous organizations and people required to complete buildings (Walker 2000). Thus, meetings are essential for the successful delivery of projects and occur throughout. The current operation of the construction industry is highly fragmented, that is different organizations undertake different specialized tasks and further these organizations differ at different stages of the project (Walker 2000). Therefore, it is not surprising that poor communications has been identified as a major cause of underperformance in projects. This poor communication has been a theme of numerous reports and studies on the construction industry in the UK; for example: Banwell (1962), the Tavistock Institute Studies by Higgin and Jessop, (1965) and Crichton (1966), and the more recent ones by Latham, (1994), and Egan, (1998) all saw this as a critical aspect of the problem. In particular the Tavistock researches were conducted under the title of the 'Building Industry Communications Research Project' (Boyd and Wild, 2002). Little of this research reported on the specifics of meetings rather taking a strategic overview of the operation of projects i.e. how they fit into an idealistic project development model. In order to start to address this, research reported here focused on site meetings. Site meetings are a universal occurrence on construction projects and can involve the widest participation of actors: clients, consultants, contractors, sub-contractors and suppliers. They were considered a good starting point to develop an understanding of the significance of meetings, thus this paper reports on research that investigates individual's experiences of construction site meetings and observation of meetings in two projects. The aim was to seek improvements in meetings not from an ideal of operation but starting from current processes and searching for workable modifications. Theoretical work on construction project processes was used to set the framework and questions for this inquiry. This paper will report on some of the results and conclude with an initial analysis of the problems. In particular the significance of the hidden objectives of meetings will be stressed and that improvements in the success of meetings requires attention to this aspect.

SITE MEETINGS IN PROJECT PROCESSES

According to Chappell and Willis, (2000),

> *"it is common in all construction projects to have regular (fortnightly or monthly) site meetings during the construction phase. These meetings are held in almost, if not all, the projects, and no matter how well the contract documents or modes of communication are, the need for face-to-face communication seems to be universal."*

Theory would suggest that there is no need for site meetings especially when projects are well design and planned so that the right information should flow to the right people at the right time, and, of course, the right people have been appointed. This theoretical viewpoint on projects abstracts (and simplifies) activities out of everyday practice. Winch (2002) states that "the construction project is an information process through time – an information flow (communication) that stimulates and controls a materials flow." In this theoretical viewpoint, a mapping of the project process, allows us to trace the path and sequence of communication within the project system. The two reports by Higgin and Jessop (1965) and Crichton, (1966) respectively gave

identification to the relationship between communication and construction processes and arguably created the first process map of a construction project (Boyd and Wild 2002). Process mapping is an approach to visualizing business processes, having its origins in manufacturing method study (Hunt, 1996). The aim of method study is to find the most appropriate flow for materials on the shop floor in a manufacturing context using flow process charts. This enables those responsible for the particular tasks being charted to analyse, discuss and thereby identify possible improvements. Considerable work has been done on process mapping for the construction industry and a process protocol has been developed (Kagioglou et al, 1998). This allows us to present the requirements for information at each stage of the project and to identify the roles of the actors in this process. Much earlier work developed AIDA (Analysis of Interconnected Decision Areas) which tried to work on the reductionist requirements for decisions making and in particular look at the interdependence of choices in the construction process (Crichton, 1966). All these tools delivered an improved understanding of construction processes and theoretically an awareness of the requirements for improved meetings. However, the tools have said very little about particulars of how to work on project concentrating on strategic requirements and saying what ought to happen. Winch and Carr (2001) have a similar critique and concentrate their attack on process modelling around the costs of information requirements at project reviews and the governance of the processes. They state that "we have criticized the development of the generic process protocol on the grounds of historical experience and its ignorance of the realities of project based competition". In our opinion these studies fail to acknowledge the individual in projects. Because of this they fail to accommodate such issues as antipathy to meetings and hidden objectives. The antipathy can be for practical reasons, for example that there are other cheaper and more effective ways to achieve the objectives than meetings; or status reasons, for example as progress of work on site shifts attention across the building processes and elements, some participants roles become redundant at certain levels. In casual conversation, lots of people bemoan the negativeness of certain individuals personalities. Whether for power or to relieve anxiety, individuals have agendas beyond the project. Only Melvin (1979) has really engaged with these issues in the construction industry. The Tavistock Studies (Crichton 1966) determined that projects possessed both formal and informal systems of communications. The formal side deals with the objectives for example as regards meetings as set out in the agenda and records of meetings. The informal aspect deals with the exchange of ideas, brainstorming, opinions and the implicit objectives of the project. There are three formal objectives of site meetings general to all projects, which are;

- To measure and report actual against predicted progress
- To answer queries, and
- To provide information and make decisions.

However, as noted by Pinto (1998),

> *"Successful project management is directly linked to the ability of the project managers and other key players to understand the importance of organizational politics and power, and how to make them work for project success".*

These politics find expression during site meetings where all the parties come together to discuss project issues. There are not only differing objectives between the various project groups but even among members of the same group. They are dynamic and

found in almost all stages of a project and evolve with the project. Being implicit, these objectives remain hidden and often frustrating to the team. They are framed around individual values and prejudices, and may or may not be obvious to the holder. They find expression in hidden agendas, power and politics, leadership and trust all playing in the arena of site meetings. Not many authors have ventured in this important area of the implicit objectives of site meeting perhaps due to the difficulties inherent in discovering secrets. However, Higgin and Jessop (1965) and Crichton (1966) have argued that communication in projects is an attempt to reduce the uncertainties and integrate the interdependent activities of the teams who otherwise work as independent entities. Implicit objectives can therefore be traced from three sources: -Interdependency of process; Handling uncertainty that was endemic in projects; Fragmentation of roles. Melvin, (1979) states "The needs of the job will often be lost in attempting to settle responsibility for broken agreements irresponsibly taken by all parties." In underlining the implied objectives of formal communication, he notes that "at such formal site meetings - in theory set up to meet the management needs of the project - all are imprisoned by their collusive acceptance of unreal, independent accountability for parts of an interdependent responsibility."

PROCESS OF INQUIRY

Our study acknowledges the work on Process Protocol and Winch's critique but chose to investigate the realities of project processes taking Melvin (1979) and the Tavistock (Crichton 1966) position and seeing them as much as social relations between people as organizational interactions. This means that we consider that individuals' experiences and viewpoints are important in the conduct of meetings as well as the way the project task is constituted as a process and the way it is governed. Our source of information was individual actors: clients, consultants, contractors etc. and observations of individual actors within a contextualized setting of live meetings. Ten people were interviewed: three clients (a National Health Service (NHS) manager, a private developer, and a housing association manager; two design team members (an architect and a building surveyor); three contractors and two project managers. This was understood to be a pilot study rather than an extensive investigation but it was hoped that sufficient rich information would be gathered to take the investigation forward so as to start a more substantive action research project. There were three objectives in the interviews. The first objective was to investigate how communication arises in projects. This was approached by asking the interviewees to describe their roles in the project processes familiar to them so that we could learn how they related with the others. The second objective was to understand the place of site meetings in the management of project processes. This was approached by asking the interviewees to describe the process and conduct of a meeting and its objectives. The third objective was to investigate the group processes of site meetings in project process. This was approached by asking the interviewees to describe two meetings that they had attended, one considered successful and the other unsuccessful. The interviews were complemented by observational studies of meetings in two case study projects in order to explore to access direct evidence of the issues presented in the interviews. Meetings were observed and informal interviews conducted with participants. Two projects were chosen for study – a prison in the Midlands, and a school in the South England. These projects were selected because they were at different stages of construction and had different forms of procurement.. The prison project was procured under a Design and Build contract. The project involved construction of 240 no. prison cells for a class "B" in the West Midlands, United Kingdom. The building work

comprised of two three-storey twin blocks arranged around central courtyards. The cells were made of prefabricated concrete boxes stack on each other with welded metal plates at joints. At the time of the study, about 60% of the construction work had been done. It had established procedures for meetings where all participants understood their roles well. The teething problems had therefore been overcome while the real issues of meetings were well underway. The school project was a Private Finance Initiative (PFI) procured project. It was in the early stages of construction and hence still developing procedures for meetings. It involved the design, construction and operation of a new school in the South England. The new school was to replace the existing old one also within the same neighbourhood. The PFI arrangement made the organizational engagement more complex and being unfamiliar to most of the participants induced additional anxieties about processes.

INTERVIEW RESULTS

Roles and Objectives at Site Meetings

On the whole the interviews demonstrated a conventional view of meetings and actors within them. The client saw their role as that of listening, filling in the gaps of foresightedness and receiving the financial statement. They also helped to make on-spot decisions "*within certain limits*" (P3). They probed into the information given and "*tried to bring out to the surface project issues so that solution can be sought.*" (P1). They also took the opportunity "*to collect and extract information that would help them make decisions*" (P2). The design team on the other hand saw their role as that of giving expert information receiving reports and resolving conflicts. With the context of traditional procurement, they also saw their role as that of chairing and directing the meeting to achieve its objectives. The project managers saw their role as that of *overall co-ordination of the team, and chairing the meeting.* Yet others saw their role as arbitrating between the conflicting decisions of the design team. The contractors felt their role was *to be told what to do by the experts*, and requesting for information. All the interviewees were able to identify the explicit objectives of the meetings as those indicated in the agendas, and the ones that meetings were intended to fulfil within the project process as described earlier. The interviewees also identified other objectives such as, evaluation of claims for delays, health and safety report among others. All interviewees acknowledged hidden objectives. Though not uniform, these implicit objectives seemed fairly similar among the various teams. A client said he went to the meeting with an objective to "*keep an eye on the project weather*" (P1). He also assumed 'symbolic power' and "*reprimanded the contractor on wrongs done.*" He "*never complimented the contractor even when he had done something good*" in order to be on the offensive. Another client used the meeting "*to deal with the current problems and get a snapshot of the administration of the contract*," (P2). Other implied objectives of the clients were to understand the people in the project, and get the 'real truth' since "*contracts don't construct buildings, - people do.*" Another implied objective was to show power. The consultants were accused of showing powers that they did not really have. However, many participants seemed to suggest that the client carried power by virtue of being the paymaster. The project managers felt that a show of power was important in order to have an effective meeting, but thought the real power rested with the contractor.

Success and Unsuccessful Meetings

All participants associated a good meeting with a good project – on time and to budget. The contractor saw a successful meeting as one where "*problems were resolved without finger pointing,*" (P7). A meeting was also described as successful when "*there was frank and honest exchange of views based on accurate and true information,*" (P 10). Free exchange of information, no blame culture, fair settlements of claims, and trust were also mentioned as some of the aspects which made meetings successful. One client participant described an unsuccessful meeting where; The contractor had given very low prices for a hospital extension and refurbishment job. The contract had been procured on tender basis and the margins were too low to sustain operations on site. Thus, during meetings, the contractor looked for all reasons to make claims and cut costs. As a result of the attempts to cut costs a by-pass corridor was constructed wrongly so that stretchers could not be pushed through. When this problem was raised at a meeting the contractor deliberately lost his memory and could not remember anything he had been asked. This caused deep-seated frustration and annoyance in everyone, making the meeting atmosphere very tense. Another unsuccessful meeting was one frustrated by lack of honest opinion from the contractor, who insisted on a completion date that was, in the eyes of everyone else unachievable. A project manager interviewee described an unsuccessful meeting where the contractor came late " *to show me that he was important and that I had no control over him,*" (P 10). Yet another unsuccessful cause was described where parties refused to accept an issue that had been agreed upon just because it was not recorded in the minutes.

Effects of Meeting in Projects

Apart from meeting the formal objectives, site meeting had the following positive effects. The respondents felt it developed the social relationship of the project for example, it allowed them to put names to 'faces'; it gave ownership and importance to the project; it created harmony in the team, and sharing of the true information; it read the mood of people through body language. In the same vane it enhances honesty, as "*it is difficult to cheat with so many people around,*" (P4). Other effects include a milestone for creating order– "*contractors had the tendency to clear and tidy up the site ahead of meeting to make good impression*" (P5). Ran well, site meetings ease the process of decision-making and safe time by avoiding lengthy contract procedures. Also, there are negative effects of site meetings such as being used to "*cover up wrongs from the consultants*" and "*manipulate minutes to get their way*" and can lead to conflict as "*one only needs to touch one point to trigger a chain reaction,*" (P 10).

OBSERVATION RESULTS

As mention two projects were chosen for study – a prison in the Midlands, and a school in the South England. In the foregoing presentation, these are referred to as ES1 and ES2. The discussion will focus on roles and processes, implicit objectives and on the success of the meetings.

Formal Roles and Processes

For the ES1, the role of the design team was to verify that the approved design and performance criteria were being complied with. The client also advised on the proposed changes. The Contract Manager's role was to represent the contractors and sub-contractors. In the ES2 case, the client was really the SPV. The End-users (the school representatives) were concerned with the overall performance and external

matters such as environmental and safety issues. In the ES1, the Client's Project manager chaired the meeting and took minutes. The Clerk of Works (COW) gave progress report and commented on the contractor's report for collaboration or refutation. The sub-contractors were not invited to the meeting and instead the construction manager (CM) gave their reports. Apart from the Clerk of Works and the CM, the other participants joined the meeting at different times when their issues came up for discussion but left soon after giving their reports. By the time the meeting was ending two hours later, only the PM, COW, CM, and I remained in the meeting room. The contract was in its 20th out of 54 weeks, and most of the design co-ordination issues had been resolved. Regarding the confirmation of progress, no inspection was held but instead, the meeting relied on the photographic images attached as part of the contractor's progress report. This had become a tradition for that site, "unless when there was an issue that required physical inspection" (Project Manager). The photos showed all the building elevations and the state of finishes, installations and external works. Regular marking on the approved works programme showed the actual state of work. Where any item appeared delayed the client team raised concern and sought assurances that the delayed item would not affect the overall programme. On the exchange of information, the contractor took the meeting through a list of queries, approval submissions, and the answers received. Where client's decision was required, the project manager made notes promising to reply 'within a week'. And on Health & Safety, the contractor reported on all incidences and accidents that had occurred since the previous meeting, and any improvements made towards alleviation. The meeting also discussed preventive measures in situations where accidents looked likely. In the ES2, the Contractor's Project Manager chaired the meeting on behalf of the client, but an assistant recorded the minutes. The meeting took place at the site offices every last Tuesday of the month. It was supposed to be preceded by a site inspection, giving the client team an opportunity to view the progress of works and approve samples. Although there were many issues discussed at the meeting, the H & S aspect took centre stage. The planning supervisor had reported that the H &S inspector had visited the site and pointed out that the manual handling of block work was pausing risk to the workers. The pre-cast standard length concrete blocks measured 140mm wide and weighed 19.4 kilograms, a weight the H & S inspector felt exceeded the acceptable limits. The contractor was therefore required to provide design risk analysis for the block work. The contractor in turn blamed the block-work sub-contractor who had been invited specially for the occasion. However, the spotlight soon turned to the designers: - architects, and structural engineers to show the alternatives methods that had been considered in the initial design, and why they opted for the heavy blocks. The stated objectives of the two meetings were similar, and set out in the respective agendas attached to the notices calling the meetings. For the progress review in the ES1 case, the main purpose was to go through the minutes, picking up all the matters arising. No inspection was conducted before or after the meeting, and the participants relied on the photographs attached to the contractor's report. The report indicated the actual progress against that projected, showing an overall delay of 4 weeks. The project manager and client team voiced concern with that delay but was satisfied by the contractor's promise to catch up with the programme. The problems in ES1 concerned the delays caused by the client-nominated suppliers of security materials. The contractor saw it as someone else's problem and a solution had to come from the client – either to change the suppliers all extended the contract time. In the ES2 case, the contractor's progress was not a major issue since "the buildings were not required

before March, 2003 when the users would take possession". In ES2 however, the suppliers were blamed for the delays and told to pull up or get penalized for the delays. The main concern to the client however regarded the compliance for H & S, compliance with the education regulations, and the end-environment expected of the project. The other problems were considered as the main contractor's domestic matter not to be discussed in the site meeting.

Implicit Objectives

There were implicit objectives in the events, which belied the effectiveness of the meetings. In the ES1 case for instance, the CM wanted to impress the PM and had very elaborate and colourful report on progress. In the prison project, the contract manager (CM) had a cordial relationship with the clients' team. He thought the PM was "a nice and co-operative guy." Although the project had been delayed by 4 weeks the CM relied on good relationship to have an extension of time "should the need arise." However, he did not think the time was ripe for such a request since "further delays could occur and he wanted to observe the situation first. Part of the delay, as he saw it, was caused by the specialist suppliers who were almost absolute monopolies on security fittings. Since the client was not willing to accept alternatives, he would be held responsible for the delays caused. Never mind this was a design and build contract. The project manager on the other hand had his own agenda as revealed during the interview after the meeting. He had placed a lot of trust on the CM, he said, and therefore did not want any issues raised in the meeting, which would indicate some laxity on his part to the client. He preferred to deal with 'sensitive matters' privately with the CM. In the ES2 case, the planning supervisor had gone to the meeting wanting to prove that " the consultants had not done enough on H & S issues". He wanted to absolve himself from blame for the over weight block, or get a convincing reply to the H & S inspectors. Prior to the main meeting the planning supervisor had invited me for a brainstorming session a head of the site meeting, where strategies were laid on how to catch the unsuspecting culprits. The planning supervisor acknowledging his non-technical background know he would not have it easy trying to lay blame on the designers. The brainstorming session was meant to equip him with questions, and counter –replies anticipated from the defensive designers. The stakes were high as the site faced possible threat of closure, due to a fault that nobody had noticed all along. Having realized so even the brainstorming session turned icy. The project manager became defensive and said that all decisions had been dictated to them based on cost cutting. Although the walls could be built of two skins thereby reducing the size and weight of blocks, the suggestion had been found uneconomical, he said. At the meeting, the hidden agenda soon surfaced when the issue of block sizes was brought up, almost paralysing the deliberations.

Success of the Meetings

At the end of the ES1 site meeting, the PM praised the contractors for "their co-operation, which had made the project a success." In a short interview with the CM, shortly after the meeting, he said, "the meeting had been a success because there are no hidden agendas, and everything is discussed in the open." The framework agreement had created a special relationship with the client, making the contractor feel part of the client's objectives. In the ES1 case, the CM felt the meeting had "given the project a new breath of life since main issues had been discussed and friendship between the team members cemented." The client team was "co-operative and had approved most of the samples." The PM felt "in control of the project." "The client,

said the PM, "was happy with the project and appeared ready to play with the team." After the meeting, all participants in ES1 turned up for the snacks as they exchanged jokes on prison life. In the ES2 case however, the meeting was, according to the Planning Supervisor (PS), not successful since "everyone had taken positions in the problems, and defended the indefensible." The design manager did not seem to take it well when asked to show how "the acoustic aspects contradicted the H & S regulations." "Do not pretend to be a soundproofing expert, because you will fail" he replied. When interviewed after the meeting the PS said he was unhappy with the meeting because "nobody was taking the H&S seriously enough." The technical people-Architect, Design Managers, and Engineers, had "refused to co-operate on the Construction Design Management (CDM) Regulations whenever they touched on their role in the project." The Architect also felt the meeting was not successful but because "Instead of resolving the real issues of the project, the meeting had turned vindictive, making everyone defensive". In the ES2 case, some participants took their snacks and drifted into small groups in the site offices, while some left immediately. The inspection scheduled to take place after the meeting did not take place.

DISCUSSION

One of the main objectives of site meetings is facilitation of good flow of information to enable decision-making. This communication is conducted through both formal and informal systems. Although site meetings are often set on a formal approach aimed at achieving the stated objectives as shown on the agenda, the implicit objectives (hidden agendas, mistrust, suspicions, and power struggle) affect the relationships, enhancing or obstructing the effectiveness of site meetings. In reality however, the implicit objectives, are generated by the uncertainties, interdependency and fragmentation inherent characteristics of the construction industry. The sequence of operation in each phase of a construction project was found to follow a pattern where the information is analysed, synthesized, and evaluated. This implied that the flow of information was only in one direction, a highly unacceptable scenario for the interdependent project sub-systems. The site meetings played a major role in redirecting the flow of information as feedback across the various players. As a project moved closer to the construction stages, and the relative positions of financial responsibility and interests got set among the parties, problem of roles, inconsistencies in documentation and variations come to the fore, creating an anxiety towards honest communication. All these problems surface in site meetings, which act as the first court to resolve the implications of information, be it in provision, lack of it, or conflict. The outcome depended largely on how site meetings handled the issues in question, ant its records. The records of meetings become prima-facie evidence for what was agreed. Although there were divergent views on the process and conduct of site meetings, the evidence from the interviews and event studies indicated their role in the project as irreplaceable. Members of the construction industry – clients, designers, contractors and project managers, revealed that above everything else, site meetings played an important role in handling uncertainty. This may explain their resilience even as the construction procurement underwent rapid changes and innovations. The two event studies on a D&B and PFI projects each showed the dominant role played by the site meeting in the management of the project process. The objectives stated on the agendas were found to be only the tip of the iceberg, as the implicit objectives, hidden agendas, and power come to the fore, influencing not only the results of the meeting, but also the success of the project.

CONCLUSIONS

There appears to have been little research on the realities of site meetings in project process. Indeed, the subject of project communication has not been developed in step with other project management concepts since the Higgin and Jessop (1965), and Crichton (1966). This pilot research reported here provides the framework for more extensive studies and indicates where improvements could be sought. This study has shed light on why site meetings have remained indispensable in project processes. But there is scope for further study on their effectiveness and how they can be improved. This research has suggests that as long as uncertainties in the construction remains site meetings are going to be a feature of construction projects for a long time and that the informal and hidden objects will be central to the effectiveness and success of such meetings. Even new concepts in procurement and contract formulation will not replace meetings as the central pillar in the informal systems of project communication and information management. This is because, as stated by Graham Winch, (2002), "*it is the people who build, not concepts*".

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