HOSPITAL DEVELOPMENT BRIEFING

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Summary
Hospital construction projects pose extremely complex managerial problems. Recent government reports have been scathing in their criticisms of the unacceptable delays and cost increases in the delivery of new hospitals. The problems that hospital project managers face are particularly acute during the early stages of the project when the detailed user requirements are being established. Many of the problems that develop later in the project can be traced back to a lack of attention given to the early stages of the project. It is in these early stages that the project manager has to reconcile the many disparate and often conflicting demands made by the multitude of user groups, funding bodies, government departments, estates maintenance departments and project consultants. Drawing upon recent research, the objective of this paper is to highlight the problems faced by each of the interest groups involved in the briefing process in hospital building projects and to identify directions for future research effort. The research is particularly interesting because it coincided with some of the first experiences of the new health care reforms which have had a major impact upon the way that new hospital projects are funded and managed.

INTRODUCTION
In the context of the construction process, briefing is the procedure by which the requirements of the customer are communicated to the project team (RIBA, 1980; DHSS, 1986). The result of the briefing process is a document which describes the goals of the client in functional, time, cost, quality and scope terms. In effect, this document represents the mission statement of the project organisation which will need to be created and managed to attain these goals. The deliberations, discussions and decisions made within the briefing process will shape the design team's perception of the type of building design that will satisfy the customer's needs. These strategic decisions represent the benchmark against which activity outputs from later stages of the construction process will be measured. In effect the brief is the highest level control document on the construction project. As the economic scene changes and technological advances continue, client demands are becoming more sophisticated and the briefing process is likely to become more problematical. Paradoxically however it is clear that the importance of briefing to the overall success of the project from the client's perspective has also increased (Kelly et al., 1992). It is also reasonable to assume that the clearer project goals that would emerge from effective briefing would also benefit other project participants although this perspective is rarely mentioned.

Briefing: a continuous and problematical process
The briefing process occurs in the earliest stages of the construction process. Murdoch and Hughes (1992) illustrate that this is the phase of the project where the client's involvement in a decision making capacity is at its greatest. Standard procurement documents such as the RIBA Plan of Work (RIBA, 1980) and Capricode (DHSS, 1986), illustrate the process as a defined period with distinct start and finish dates. In support of this perception many reports such as NEDO (1983) emphasise the importance of the brief remaining unchanged after the briefing process is completed. Whilst a definitive brief appears to be desirable it is an impossibility and in fact inappropriate in the construction process. The reason is that construction activity is inherently uncertain and the circumstances upon which clients base their goals continually change (Flanagan and Norman, 1993).
The uncertainty of construction activity is a particular problem in complex projects like hospitals because of the innovative nature of the technology incorporated. It is for this reason that once initiated, the briefing process must be allowed to continue until the end of the project.

Although the client is the major contributor to the briefing process there are many other disciplines involved and this is the main contributing factor to the problems that arise. It is a particular problem in complex projects such as hospitals where the clients themselves may consist of many interest groups in conflict with each other. In these circumstances the number of interfaces across which communication problems and disputes can occur is high (ECH, 1990). These problems are exaggerated in the briefing process because of its location within the early phase of the construction process. It is an unfortunate coincidence that learning curve problems are usually at their greatest early on due to the unfamiliarity of the team with each other's working practices.

**Hospital development characteristics**

One of the most striking characteristics that distinguish hospital projects from other project types is the time scale over which they occur and the large costs involved. It is common for total costs to run to many tens of millions of pounds and for total project time scales to reach ten to fifteen years. For example, one hospital project in South Wales has been ten years in the planning and still the contractor has not started work on site. When these types of time scales are compared against the average human life of seventy years their significance becomes apparent. Technologically, hospitals are also likely to be highly complex requiring the integration of diverse and intricate building services. Functionally they are equally complex, having to satisfy the disparate demands of the general public and the highly trained staff that operate the facility. The functional performance requirements are such that the quality of construction has to be exceptionally high. Politically they are relatively high profile developments involving the use of large amounts of public money. Users tend to have a much greater interest in the scheme than in other types of development. This means that public scrutiny is high and that time and cost constraints are normally very inflexible. A National Audit Office report (1989) accused a number of Health Authorities of unacceptable delays in the building of new hospitals. The publication of this report is a reflection of the national importance attached to these projects and the constant scrutiny to which they are subjected.

Focusing upon the communications that occur within the process, figures 1, 2 and 3 portray the complexities of the briefing process in hospitals in comparison to other building types. Figure 1 illustrates a simple building project where the users, distinct from the client, are not involved in the briefing process. Although the project and client teams may be differentiated internally there is essentially only one major interface across which information must flow.
In figure 2 the user is involved in the briefing process and the introduction of this one role has a multiplying effect on the number of interfaces. Figure 2 has three major interfaces.

Figure 2 Simple user involved in the project to a limited degree

Figure 3 illustrates a hospital project scenario where the users are highly functionally differentiated and play a more dominant role in the briefing process than in figure 2. In this scenario the political issues within the user organisation become a major issue in the briefing process and the number of interfaces that need managing increases dramatically. Under these conditions the role of the project manager as the nexus of information becomes critical. The project manager must ensure that information can flow, not only between the project team and client but also between the component sections of the user and client groups.

Figure 3 Hospital type project - Complex user highly involved in the project

The extent of the integration problem faced by hospital project managers became clear during the research to be described later in this paper. For example, one project manager in charge of a new seventy million pound hospital project in South Wales had the task of integrating the requirements of 52 different functional user departments into the brief. In addition to this the project manager had to consider the opinions and requirements of construction consultants and of the funding client organisation. Processing the massive amounts
of data required posed a major logistical problem. Figure 4 illustrates the communication paths that existed in this project during the pre-contract stages.

![Figure 4 Pre-contract organisation: communication paths](image)

**Procurement in the national health service (NHS)**

The NHS is a government funded organisation which has the objective of meeting the UK population's health care requirements. Since the formation of the NHS the UK population's expectations of health care have increased enormously and the technological advances that enable this care to be delivered have been extensive. These developments have had major implications for the space needs of the deliverers and users of this vital service. Existing hospitals including those built more recently have become unsuitable to today's needs and a continual upgrading of these facilities is required. Public funds provide most of the finance for such developments and the various health authorities have a general duty to provide the best value for money and to conform to procurement, cost control and planning procedures set down in a prescriptive document called Capricode (DHSS, 1986). This document sets out the control procedures to be followed on all NHS and trust health care developments. By doing so, it theoretically enables those who are accountable for the expenditure of public money to establish whether resources have been spent efficiently. Inevitably therefore health care schemes are very bureaucratic.

Historically hospital developments have been the responsibility of the District Health Authorities (DHA) but with the development of trusts since 1989 as part of the NHS reforms, this responsibility has been decentralised to individual hospitals. Trust hospitals are autonomous health care providers who have chosen to take independent control of their building stock and move away from the centralised control of the district health authorities. The continuous maintenance and upgrading of hospital building stock is essential to the delivery of an effective service and this responsibility lies with the trust estates manager. Much of the estates department's work is involved in maintenance but occasionally a new building may need to be procured. Under these circumstances it is particularly important that the estates manager can rely upon staff who understand the complexities of modern hospital design and construction (ECH, 1990). The recent health care reforms which have decentralised procurement responsibility have had major implications for the staffing of trust estate departments. Typically, the staff working in trust hospitals will have had little opportunity to experience the problems associated with large new hospital schemes since these will be a rare occurrence for individual
hospitals. Most of the day to day activity will be of maintenance and small new work nature. This is in contrast to staff employed in the old district health authorities who will have been exposed to a wide range of new build schemes in varied locations within a wide district. Whilst many district health authority employees may eventually work for the new trusts there will be fewer opportunities to experience new building work in their relatively isolated location. The long term implication of this trend must be that hospital building projects will procured by increasingly inexperienced professionals. Furthermore, due to the lower incidence of major new build projects in trust hospitals, each new project will be subjected to greater scrutiny since it will be more of a novelty. The pressure upon the trust estates manager to deliver effectively will be correspondingly greater and under these circumstances the estates manager is faced with a dilemma. A decision must be made to either employ outside consultants with experience of large, complex projects but a poor understanding of hospital needs and procedures or to use their relatively inexperienced in house team with a good understanding of hospital needs and operating procedures but little experience of large complex new projects. This dilemma has in part led to the development of a new style of project management in the health service which uses project sponsors. Project sponsors act in a project management role acting at the interface between the users, client and project team. Their role is to take total charge of a project, act as a single point of responsibility on the client's side, act between the client and project manager, fill the role of the expert client for the project team and ensure completion on time and within budget. The IBBS Report (1986) introduced the project sponsor concept as someone who with their own budget would be personally responsible for project success. ECH (1990) reinforced the need for a project sponsor to improve the poor communications that traditionally characterise project manager, client relationships. ECH (1990) advocated a toning down of the sponsor's role by the allocation of greater responsibility to the project manager who has limited responsibility under the DHA system. Project sponsors with the necessary experience of large hospital projects are being employed by health trusts to take charge of the larger capital projects. They are particularly heavily involved in the early stages of the building process coordinating funding arrangements, developing the brief and appointing the project manager. The sponsors are charged with the responsibility of building effective project teams and can use their own discretion in doing so. Any combination of internal and external consultants is possible.

Research strategy and results

The research carried out in January 1993 aimed to investigate the problems associated with the briefing process in hospital projects and indicate priorities for further research. The research strategy involved collecting data off experienced respondents about the problems they had encountered on large scale new hospital projects. Data was collected from representatives of each of the main contributing groups to the briefing process. A total of fifteen semi structured interviews were conducted with user groups, project managers and designers. To support the qualitative data provided by the interviewing process, a total of thirty detailed questionnaires were sent to other project managers, users and designers actively involved in health care provision. The response rate was 76%.

Project manager's views

To date, relatively few hospitals in South Wales have opted for independent trust status and those that have are yet to utilise and clearly define the role of the project sponsor. Traditionally the DHO project managers have managed the briefing process and they have formed the focus of the data collection in this research. It is hoped that the results of this research will be helpful in defining the project sponsor's future role. The most fundamental challenge identified by project managers was that of having to clarify the purpose of the briefing process and its importance to all concerned. There is a tendency for people to want to rush this phase of the project since it appears to be an unproductive one. Project managers foresee this being a particular problem with trust developments because trust teams are likely to feel closer to the project than DHA teams and thus see the need for the hospital as being more urgent. Coupled with their relative inexperience in dealing with large, complex developments, the closer scrutiny to which they are subjected and the desire to make their first trust project as efficient as possible, there is likely to be a tendency to want to rush the early phases of the project.

Apart from trying to slow down the initial stages of the project the project managers identified that the main problems in the briefing process were ones of coordination and integration. The complexity of the user requirements seems to present a particular problem since inevitably the large number of users have conflicting requirements. Each functional department within the user group has its own cost allowances and it is the project
that the more detailed information transfer frameworks evolve over time as the project progresses and as people
manager's responsibility to ensure that these are not exceeded. This requires continuous cost control over the
designs as they develop and continuous refinement of the brief. Collective discussion of the trade offs that have
to be made is particularly difficult and this is made more difficult by the need to involve a number of
construction consultants in this process. The vast amounts of information which seem to pass through the
project manager's hands seemed to cause information overload problems and effective handling of it was
considered very important. It is apparent that the creation of effective communication systems by the
clarification and management of information channels is critical in easing this pressure. Unfortunately the
interviews suggested that this is seldom achieved at such an early stage in the project. Communication problems
seem to plague all of those involved in the briefing process. It appears as if primitive systems are set in place but
that the more detailed information transfer frameworks evolve over time as the project progresses and as people
iron out the difficulties with the early system. Monthly project progress meetings seem to be the forum within
which the information system evolves. Project managers had to supply the project team with large amounts of
externally generated guidance material issued by government. Ensuring that this information was up to date was
a problem. Secondly, project managers have to ensure that internally generated information flows smoothly
within the project team and to any external interested parties. In ensuring smooth internal information flow,
meetings were seen as the most effective medium. Unfortunately however, there were specific difficulties in
arranging meetings where all project members were present. As a result it was felt that many project members
tended to depend upon the project manager for the supply of information rather than deliberately searching for it
themselves. Even when project members attend meetings there seemed to be a common difficulty in identifying
exact requirements. There was a particular problem in getting people to record their requirements in writing
since their documentation was seen as final and a restriction upon future requirement flexibility. It seems that
the politics of the briefing process creates a reluctance to make firm decisions. The internal politics between the
hospital consultants, as representatives of their departments can become fierce enough to encourage consultants
to exaggerate their department's needs. Space is a sign and a source of power in hospitals and is the most
aggressively fought over commodity. As a result, the negotiations between the various user groups are typically
drawn out, tedious and frustrating to project managers. Inevitably then project managers spend a high
proportion of their time in meetings and translating information between them. They act as trouble shooters,
diffusing potential disputes which can arise between the many disparate parties involved.

The whole spectrum of project participants interviewed complained that the accuracy of the information
produced by the project team involved them in abortive and repetitive work. Ensuring a mutual appreciation of
information needs is a very complex process. The main difficulties result from the lack of experience of project
members in procuring large projects and due to the complex and dynamic web of information requirements
which exist. It follows that effective information control systems are essential on hospital projects and its
creation was seen as one of the main responsibilities of the project manager. Without an effective system the
experience was that chaos prevailed. This awareness of the importance of effective information management is
encouraging but the evidence suggests that there are major problems in constructing such systems. It is essential
that project managers ensure that they have a clear understanding of the information requirements of all
concerned in the briefing process and how this changes as the project progresses. The project managers also saw
the briefing process as a highly stressful and adversarial one where conflict was common, particularly between
the competing user groups within the client organisation. In periods of conflict some project managers saw their
role as one of mediator but others preferred not to get involved. Suspicions of allegiances tended to be rife and
it is essential that the project manager presents a totally impartial image and develops group, rather than
isolated, decision making practices.

The design consultant views

The design consultants identified their main problem as being other's misconception of their information needs.
There is a particular problem in communicating the level of detail required, particularly from the user
consultants who seem to be difficult to track down and unenthusiastic to attend meetings. To progress on the
basis of missing information means that architects under time pressure have to make provisional decisions
which often need to be changed at a later date. There was the recognition that such changes only serve to reduce
the integrated nature of the design in an unstructured and uncoordinated manner, inevitably causing
performance problems during the building's use.

Cost control was seen as essential but there was often the problem that the cost burden of the scheme was rarely
fully recognised at an early enough date. This problem seems to stem from lack of communication between the

client and user groups during the early parts of the briefing process. As the exact requirements of the user groups becomes clear it is common for costs to rise above approved budgets and cut backs have to be made. It was felt that this causes much frustration and much abortive work on the part of the designer. Designers felt that the client and user groups seemed to be unaware that even minor changes have major implications throughout the design. Designers also felt that a major problem in hospital projects was the speed of technological advances compared to the long time period of the projects. Under such conditions changes are likely as new technology becomes available. Perhaps better prediction of future technologies from users at the start of the project may help alleviate this problem. It is possible that this problem is partly a result of a lack of communication between the design team and the user representatives who may be aware of technological advances far in advance of designers. There also seems to be the problem that the dependence on the political and economic climate means that schemes are often shelved. The objections were not to the shelving of projects but to the occasional practice of employing a totally new project team to continue the development when feasibility is re-established. It was felt important that those involved in the initial brief development should be involved when it resumes.

**Users views**

The two groups of hospital users are the hospital staff and the general public. It is rare for the general public to be involved to any significant extent within the briefing process and thus it was felt inappropriate to question them in this research. Similarly the staff who use the facility are rarely involved individually but they are represented by the medical consultants in charge of each functional department within the hospital. These consultants represent the staff's point of contact with the building team and thus were the focus of the data collection effort. There can be internal problems of communication between the consultant and his staff although this was not considered in this research.

It was evident from the data received that consultants expect to be able to communicate their requirements to the project team and to be able to adjust them as the building progressed. Unfortunately, it seems as if the process of communicating user requirements often breaks down because users felt that their space requirements were often not clearly realised. It was a common complaint that consultants would be presented with sketch schemes after very little consultation leaving them little scope for further alterations. Consultants felt frustrated that the sketch schemes upon which their decisions were based often did not bear any resemblance to the final designs produced. Essentially they felt that they were not fully involved in the decision making processes.

Consultants also felt confused over the points of contact with the project team and that this led to a lack of confidence in the building process. One suggestion was made that a specific team be set up to interface with the users and that the structure of this team should be kept as consistent and as simple as possible. This approach would go some way towards allaying the fears of consultants that their requirements were actually being understood by the design team. Importantly consultants were not entirely happy with the nucleus system of hospital design which is so often used. The problem is that there seems to be a lack of space in fitting various user departments in to the nucleus template spaces. Finally, most consultants were frustrated with the long time phase over which hospital projects are procured. The possibility of not actually being employed in the hospital when the scheme comes to fruition is a real one and this can have a negative effect on the enthusiasm of consultant to participate in the process.

**Conclusion**

All respondents considered that the briefing process was very important to the ultimate success of the project. Unfortunately it seems that all concerned with the provision of health care facilities are unhappy with the briefing process and identify the main problem as one of communication and coordination. It is not possible to comment on the effect that the new health care reforms have had upon hospital procurement but there are some concerns amongst project managers. These concerns may of course be motivated by some degree of self interest. For the client and users, the briefing period represents the greatest opportunity to influence the nature of the final building. The research suggests that it is this determination, coupled with a lack of awareness of their own requirements and a lack of concern for other's that creates many of the problems experienced within the briefing process. Paradoxically however we have also found that there are often problems in obtaining their contributions which typically tend to be rushed and spasmodic. The briefing process seems to be a highly political one requiring a great deal of tact and diplomacy on the part of the project team. It is apparent from this
research that any future work concerned with the briefing process would need to concentrate upon the communication, integration, power and political aspects of the process.

References


National Audit Office (1989) "Hospital Building in England" HMSO
