Briefing as an Ongoing Co-learning Process
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ABSTRACT

Every design process begins with developing an overview of the needs of those for whom the building or other setting is intended. Users may include individuals, groups, and organizations. The process of determining these needs is called “briefing” in the UK, and “programming” in North America. This paper describes an evaluation of the briefing process and some of its results in an academic school at Salford University in Manchester, England. The paper suggests that a robust briefing process is one in which there is mutual learning among all participants over a period of time that includes not only pre-design but also post-occupancy. Based on a 30-month project focused on better briefing, this paper proposes five key areas essential to a successful briefing process: client empowerment, managing the project’s dynamics, and appropriate levels of user involvement, use of appropriate visualisation techniques, and team building.

These ideas are illustrated and critically reviewed in a single case study of an office refurbishment for 110 staff, followed by the results of a post-occupancy evaluation (POE) carried out eighteen months after the work was completed. The research employs six different techniques in data gathering and analysis. The findings from each of these were triangulated with each other. The POE results led to several mini-experiments to test hypotheses related to the use of shared spaces. The experiments were carried out to make users’ expressed preferences more tangible and evident.

In contrast to seeing briefing as a one-time, early stage, construction project event, this case study makes clear that optimum briefing is an on-going, dynamic, interactive process with distinct stages, some of which can be seen as design and construction projects. Moreover, this paper illustrates the general point that briefing is most productive when it is an on-going co-learning process centred on the organisation as a whole, and including users, designers, professional advisors, and other stakeholders.

Keywords: Briefing, programming, owner/user, post occupancy evaluation

INTRODUCTION

In construction, where projects are undertaken for particular clients, it is common for the client to provide designers and contractors with a document taken to represent the client’s needs and requirements. Once this is accomplished, the brief is generally considered complete. When briefing is a snapshot that records the client’s initial ideas, it is likely to fail to capture the way a client’s actual understanding of their requirements may change throughout the construction project, in large part due to the actual environment in which the client finds itself. When practiced as an ongoing process, briefing can capture, develop, and translate stakeholders’ dynamic requirements into best-fit results. This approach to briefing extends it beyond a single event in the early stage of a construction project, to a dynamic and ongoing process by which the built environment is formed progressively and interactively from pre-design to after the setting is in use. Barrett and Stanley (1999) identified five key improvement areas in the briefing process.

FIGURE 1

Five Key Improvement Areas in Briefing Process (Barrett and Stanley, 1999)

The figure illustrates that empowering the client and managing project dynamics are major concerns in briefing; the first relatively “soft”, the second quite “hard” and technical. Knowledge capital in these two areas is widely available and, when tapped can make a significant impact on briefing. The next three areas

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are distinguished by calling for appropriate levels of effort, rather than arguing simply that more is better. These three support the first two. Appropriate user involvement clearly supports client empowerment, and appropriate team building supports successfully managing project dynamics. Employing appropriate visualisation techniques is a key communications issue that supports the other four elements.

CASE STUDY

In 2001 three Salford University departments—Accounting, Economics, and Management Sciences merged into one school with the acronym AEMS. The project involved relocating approximately 110 academics plus support staff and researchers from cellular offices in three separate campus locations to a single area within a major academic building, the Maxwell Building on the Salford Campus. Beyond accommodating a large number of people in a single area, the project was important as a symbolic and tangible representation of the AEMS School’s new consolidated management structure, a restructuring about which raw feelings and emotions ran high. The expectation was that the newly designed space would contribute positively to the emerging management structure, to interactions among its academic users, and to a forward-looking feeling among users. The new space, with additional common areas and smaller private offices, challenged staff coming from a legacy of cellular offices, to work in new ways.

The study builds on Zeisel’s (Zeisel, 1985 and Zeisel et al, 1994) “Purpose-Driven Environment-Behaviour Model” to analyse the relationships between the facility’s intended purposes, the performance criteria it was expected to meet, the design decisions made, the interactions between users and settings, and the actual resulting organisational and other outcomes for AEMS. This Model, represented as a three-part triangle and a linked chart, constitutes a defined learning cycle.

FIGURE 2:
Purpose Driven Environment-Behaviour Model with Outcomes bifurcated to create a more dynamic learning cycle

The Model maps critical performance criteria design decisions and the actual use against anticipated and unanticipated outcomes of the setting. Once the mapping process is finished, this is then feed into the triangle to close the learning cycle.

During the briefing stage for the new AEMS space design, emphasis was put on both staff office space and shared areas. User consultation was an integral part of briefing, including both questionnaires and workshops to elicit the users’ “wish list” for workplace characteristics. Users were encouraged to express their feelings, desires, and expectations while it was clearly stated that the University “may not be able to fulfil all your requirements”.

Aggregated results were discussed in a focus group meeting and consensus on the main design elements was reached among the twenty representatives. These briefing elements, by capturing the client’s (in this case School Executives and end users), designers’, and other stakeholders’ visions, constituted the first step in managing the project dynamics.

Clients were further included through continuous feedback presentations to staff in which photographs of different sized offices, were projected in focus group meetings to reinforce the reality of what was being discussed, and by draft drawings repeatedly being presented for discussion and reviews.

This briefing process resulted in a set of clear goals and objectives, including:

- Co-location of all disciplines in the same building.
- Single adaptable plant-filled central shared space for interaction.
- Style and flair to promote an identity for the new combined school (AEMS) in the building
- High demand for privacy in offices.
- Office space assigned equitably to staff by having all rooms standardised at 10 \text{m}^2/\text{person}.
- Bright and light ambience in offices
- Shared smaller social spaces for interaction
- Breaking the heavy ‘institutional’ look of the Maxwell building by avoiding long corridors with cellular offices
- New furniture for social spaces and staff offices.

A year after the resulting space was occupied, a post occupancy evaluation (POE) was carried out to determine what could be learned from the year’s occupancy as input for planning additional space in the Maxwell building.

Other goals for the post occupancy study included improving future briefing processes and formulating additional environmental changes that could improve conditions for users.

**Space**

The study population included everyone employed by AEMS who occupied Maxwell 5th Floor, differentiated into the following sub-groups:
- MoRI: Member of Research Institute, who spend more time on research than other users,
- Lecturers: Staff whose time is generally allocated to teaching and administration,
- Professors

The initial phase of the POE consisted of documenting “as built” conditions as opposed to those “intended” by the brief. The first of these related to the size of the offices. The brief specified that all staff were to receive occupied space of 10m$^2$—either one occupant in an office that size or two occupants in a 20m$^2$ office. Two of the 22 offices were constructed slightly smaller, at 18m$^2$ instead of 20m$^2$, and space was not equally distributed.

<table>
<thead>
<tr>
<th>Size of office</th>
<th># of occupants per office</th>
<th># of offices</th>
<th>Professor</th>
<th>MoRI</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>10m$^2$</td>
<td></td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>20m$^2$</td>
<td></td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>8</td>
</tr>
<tr>
<td>18m$^2$</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>--</td>
</tr>
</tbody>
</table>

Traditionally people higher in an organisation’s hierarchy are allocated larger offices. This was also the case in here.

Professors occupy larger offices than other staff. Only one of three professors selected a 10m$^2$ office, while the other two were each allocated an undersized two-person office of 18m$^2$. On the other hand, all eight lecturers are sharing four 20m$^2$ offices, thus are allocated 10 m$^2$/person. The interview data indicated that lecturers and MoRI find professors’ occupying larger offices “acceptable and reasonable”. If the underlying intent of the brief was to allocate larger offices to professors and equivalent amount of space to others, the space allocation was fair and equitable. But this was not the expressed intent.
Research Process

The POE was carried out in two phases: First the initial briefing report for AEMS space was analysed to make design principles explicit. Then the following techniques were employed to study use and attitudes:

1- **Workplace Evaluation Questionnaire** administered to all occupants. A three page questionnaire was administered requesting responses describing how respondents allocate their time, how much work time was spent in the Maxwell building, and attitudes towards office conditions. The questionnaire also queried respondents about satisfaction with the effect of environmental conditions on their activities.

2- **Semi Structured Focus Interviews** carried out with a convenience sample of AEMS staff who also responded to the questionnaire survey. The interviews were loosely structured around four main areas: offices, control of the environment, involvement in the initial design decisions, and their experience on the environment in general. One interview was conducted with a MoRI and two with lecturers.

3- **Exploratory behaviour observation** of how the space was used at different times of the day and days of the week. Three hours over two days were spent systematically monitoring the use of social space. During this period, several induction programmes were taking place at the school. These exploratory observations elaborated the findings from both questionnaires and interviews concerning the use of social space.

4- **Walkthrough Physical Traces Observation with Interviews** of the AEMS environment to uncover traces of previous activities that had taken place, the way people use the space, and their attitudes towards it. Investigators systematically observed the physical environment to determine reflections of use of and activities in the AEMS space. An initial walk-through provided researchers a picture of what activities take place, some problems, and some design successes. Three main questions were asked of every physical trace observed (Zeisel 1988):

   • What caused it?
   • What did the person who created the trace intend?
   • What sequence of events led up to the trace?

One of the advantages of observing physical traces is that data gathering is both unobtrusive and non-invasive—investigators in no way can influence the outcomes. Photographs were taken of the environmental traces for later reference and for use in the workshop.

5- **Focus Group Interviews** with faculty and administration to engage users in analysing the data from the previous steps and to determine users’ thoughts, feelings, and expectations related to the physical environment. Photos of observed situations were presented to participants and comments on these elicited during the group interview.

6- **Data Analysis Review Workshop** with administration to confirm the research team’s analysis and to make recommendations to the School executives for next steps. To confirm, revise, and add to the interpretation combined observation, interview, and questionnaire data, these data were presented to the School Executive, two AEMS staff members, and a project manager from the University’s Estates Division. To focus discussion, photographs of observed conditions as well as explanatory diagrams were presented to the group. Participants were asked to comment and explain illustrations from their own perspective. Discussion focused on the intended goals and purposes of the new AEMS space, office allocation and layout, and governance of the space.

**FINDINGS**

Each technique either revealed new issues or found data that helped interpret an issue another technique had uncovered. The following discussion illustrates the main findings from each technique.

**Workplace Evaluation Questionnaire**

- Both lecturers and MoRI spend 60% of their time alone in their offices, with two thirds of this time in private study for MoRI, and about one third of this time in private study for lecturers. Professors, on the other hand, spend 35% of their time alone in their offices, with nearly half of that time spent in private study. Of all of their work time, MoRI spend 24%; lecturers spend 12%, and professors spend 16% in private study.
- Lecturers spend about a quarter of their time filing and doing other paperwork, and a little less than that in private study. Another quarter of lecturers’ time is split between tutorials and teamwork.
- As the following figure illustrates, lecturers identified daylight, office temperature, and furniture as the least satisfactory, while professors tended to be highly satisfied with all characteristics. This significant difference is due to the distribution of offices. While professors have larger rooms with daylight and relatively new furniture, two thirds of rooms allocated for MoRI and lecturers have
older furniture in the offices with no daylight access. MoRI see visual privacy and noise as the least satisfactory. Overall, daylight, visual privacy and furniture were found as the least satisfactory among MoRI and Lecturers.

FIGURE 3
Satisfaction with Work Environment

Semi Structured Focus Interviews
- Each staff member uses his / her office differently. Some use their offices as interview rooms, others carry out research there, and others use their office mainly for storage.
- Each staff member stressed that visual and personal privacy are important and that they feel the glass wall between their office and the adjacent meeting space compromised their visual privacy.
- Noise from meeting areas adjacent to each office is disruptive to work.
- The lack of personal control over building temperature, lighting, and ventilation is an issue for the staff.
- Staff generally avoid complaining to the School’s administration about the environment because they say it takes too much time, and because they feel there can be no solution to dissatisfactions that relate to the building’s infrastructure.

Exploratory Behaviour Observation
- Staff lock their offices each time they leave them, even for a cup of coffee, because they feel there is a lack of security.
- Academic staff—— tend to keep their blinds drawn and office doors closed all the time, whether in their office or not, indicating that the glass walls between offices and meeting space compromise their visual privacy.

Walkthrough Physical Traces Observation with Interviews
- Tables in the meeting areas adjacent to offices are larger than indicated in the move-in plans. When people are at the table, staff entering their offices have to squeeze behind chairs.
- The meeting table comprises four separate parts—selected expressly by the designers so that staff could arrange them in different configurations. All the tables were initially installed with the two semi-circular and two rectangular parts together as drawn in the project plans. When users had attempted to arrange the table parts, someone from administration told them this was not permitted.
- Some offices have daylight window access and some do not. Staff in non-windowed offices indicated that this made them feel that there was inequality in space allocation.
- Furniture in the offices tended to be old, while tables and chairs in meeting areas were modern and newer. Some staff have moved the newer chairs into their offices.
- People tend to store and archive their documents in file cabinets in their own offices—no matter how small the offices are.
- The shared kitchen across the hall from the social space is used very little and some occupants keep their own water kettle, coffee, and tea in their offices.
- Food leftovers on the floor of the central social space indicated that staff and students did, in fact, use that space for informal meals.
Furniture in offices was older and more used than furniture in the social areas.
- Staff scavenge chairs from the social areas for their offices. Staff complained about the quality and age of their office furniture.
- Assuming that no budget was available for new furniture, staff did not request it.
- Staff assumed that funds spent on new furniture in social areas were spent to improve AEMS’s image to outsiders.

Focus Group Interviews:
- Those interviewed report that whenever they need to engage in ‘creative’ work—course planning or writing an article—they work at home to get away from noise disruptions in the office.
- Staff reported that they feel office interiors are unpleasant. Old furniture, lack of daylight, and cramped space were mentioned as contributing to this unpleasant character.
- Staff say that they store everything they need for their work in their offices because they believe there is a lack of security in common areas.
- Staff keep even archival storage in their offices.
- Staff want accessibility to their documents for administration and research. Because common areas are accessible to all building users 100% of the time—even when the offices are closed—there is no security in these areas.

Data Analysis Review Workshop
- AEMS Administration distributed the present office space using a lottery in order to be fair and equitable. Exceptions were made in the following cases:
  - Several staff voluntarily chose shared offices
  - Some offices have daylight, while some do not.
  - The AEMS School has acted on the belief that employing a lottery to allocate offices achieves fairness, even with, exceptions made for administrative staff and professors.
  - Because all 20m² shared offices have daylight while some private offices do not, sharing an office was offered as an alternative to having a private smaller office without daylight.

- Administrative staff who spend all day in their office were assigned offices with exterior windows.
- Professors who wanted to, were assigned larger office spaces because of their status, although the “larger” offices were 18m², not 20m².
- Accommodation characteristics employed to incentivise lecturers responsible for greater numbers of students. Incentives included new furniture and a larger office.
- Staff who complained about seasonal affective disorder—SAD—a health condition, would have been assigned a window office.
- Administration indicated that the purposes of refurbishment were to integrate staff in all three sections, promote interaction among staff, support individual needs, and to develop an internal identity for the school and an external image vis a vis the larger academic world.

ANALYSIS
Employing Zeisel’s Purpose-Driven Environment-Behaviour Model yields the following.

Building Purposes represent the larger justification for a settings’ existence—the reasons that an organization, in this case Salford University, has invested in the physical construction or renovation. The
overarching purpose for the development of a unified AEMS space—some might use the term ‘its major goal’—is to consolidate the three disciplines into a unified school, to be achieved through an integrated staff, co-located in an environment where everyone is able to best conduct their activities, both synergistically and as individuals.

Critical Performance Criteria represent specific and essential conditions a particular design must achieve in order for the intended environment to meet its purposes. Once an environment’s critical performance criteria are established during briefing, design decisions can be formulated, and later acted on in design and construction, that are aimed at achieving these critical performance criteria. Every design decision is made with either implicit assumptions or explicit predictions of how users will behave in or react to the setting. Taken together, design decisions and how people actually relate to the final setting, result in outcomes intended to meet or reflect the setting’s ultimate purposes. The Purpose-Driven Environment-Behaviour Model leads researchers and designers to look back at these decisions, compare them with actual use of and reactions to space, and identify actual outcomes of that setting—both anticipated and unanticipated.

Threshold Performance Criteria in a setting are those environmental conditions common to and underlying the quality of all environments, but that are not critical to that particular environment achieving its purposes. When certain conditions do not meet minimum threshold standards in a particular setting—such as poor air quality or poor building maintenance in offices—they become salient to its operation and can be considered threshold performance criteria.

In both individual and focus group interviews, the researchers employed visual and verbal probes to encourage respondents to clarify a point, to explain further what was meant, or to shift the topic (Zeisel 1988).

Analysis of ‘design and outcomes chain’ for each Critical Performance Criterion
In the following table, each critical performance criterion is examined along with the major design decisions taken to implement that criterion in the project. The Purpose Driven E-B Model, with its bifurcated learning cycle, is used to trace the link between the critical performance criteria described above, design decisions made, observed use and attitude, and the intended outcomes and eventual possible unintended side effects of those decisions.

TABLE 3
Analysis of Critical Performance Criteria

| Critical Performance Criteria: Create an identity for the AEMS School |
|---|---|
| **Design Decisions:** | **Actual Use and Attitudes:** |
| • Provide new furniture in common areas | • The workplace as a whole appears bright and spacious. |
| • Standardise fabric pattern throughout the AEMS space | • The physical appearance, different from other spaces, seems to give AEMS a new image |
| **Anticipated Outcomes:** | • Staff say they feel they are working in a higher quality environment |
| • The quality of the space appears to enhance recruitment of staff and researchers | **Unanticipated Outcomes:** |
| • The AEMS School appears to have an identity within the faculty |
- Staff are aware that design attention was put into office areas but feel the building as a whole is of lower quality – such as maintenance of toilets, which they feel remains unsatisfactory.

**Critical Performance Criteria: Provide privacy for staff**

**Design Decisions:**
- Most staff members have their own private office
- A glass wall is provided between each office and adjacent meeting space with the intention that each office has access to daylight and each occupant has visual interaction with activity in the meeting area

**Actual Use and Attitudes:**
- Individual cellular offices provide only limited privacy
- Glass walls are mostly blocked with furniture and blinds are generally kept shut
- Each staff member stores all work related papers in his/her office

**Anticipated Outcomes:**
- Staff work at home on tasks requiring concentration
- Staff blame lack of security in common areas for needing to store all papers in their offices.

**Unanticipated Outcomes:**
- Staff see glass walls as allowing an invasion of visual privacy by people in the adjacent shared space
- File storage in offices makes them small and cramped.

**Critical Performance Criteria: Equitably distribute offices to staff**

**Design Decisions:**
- Each staff was supposed to be assigned 10m²
- Single offices were to be 10m² and offices shared by two = 20m².

**Actual Use and Attitudes:**
- Actual dimension of two larger offices result in their being 18m² each.
- Exceptions in allocation were made so that professors were assigned larger offices, but only the undersized 18m² large offices

**Anticipated Outcomes:**
- Staff perceive equity in amount of space occupied, but not its quality. They feel that window access, external views, furniture, temperature and ventilation were unfairly distributed.

**Unanticipated Outcomes:**
- There appears to be a mistrust of administration’s management of available space

**Critical Performance Criteria: Promote interaction among staff members**

**Design Decisions:**
- Social space is provided for interaction
-Flexible use of social space and planting were planned
- Meeting areas are provided for group work, and for staff to meet with students

**Actual Use and Attitudes:**
- Group events are planned and organised in the social space
- No internal planting was provided
- Pin-up announcement boards surround the major social space.

**Anticipated Outcomes:**
- There is mutual awareness among staff of research and other staff work projects seen on pin-up announcement boards. This has lead to several team projects.

**Unanticipated Outcomes:**
- Individual interaction seems to take place
- Interaction among sub-specialities—Accounting, Economics, and Management Science—appears slow in developing.

**Critical Performance Criteria: Reduce the “institutional” feel of the building**

**Design Decisions:**
- Daylight penetrates through social spaces into hallways
- There is a bright and open feel in the whole office area
- Double loaded corridors have been avoided
- Plans were made for new furniture in all areas and offices

**Actual Use and Attitudes:**
- The office environment actually feels brighter and more spacious than other areas in Maxwell building
- Common areas have new furniture
- Furniture in individual offices is mostly old and pre-existing

**Anticipated Outcomes:**
- The AEMS School appears to have its own identity and image.
There is an evident discrepancy between furniture quality in private offices and furniture in the shared areas.

Unanticipated Outcomes:
- Staff feels that offices are of lower quality than they should have.

The following photos illustrate the change from institutional feeling double-loaded corridors to the more open newer design.

FIGURE 5
AEMS Space – Before and After

MINI EXPERIMENTS

It is clear that while common spaces have been adequately provided, furnishings there have not contributed to their intended use. To complete the learning cycle described in Fig-2, the outcomes of the data analysis were used to implement and test several changes in the social space. The research team decided to conduct the following two mini-experiments. First, movable plantings have been installed and are being tested in the shared area. Second, alternative layouts of the modular meeting table are being tested in the meeting spaces.

The research team also would have liked to conduct an experiment regarding size and shape of individual offices in order to determine whether equitable allocation could be established in the same total square meters, but the renovation necessary for such an experiment proved too costly at this time.

Mini Experiment 1: Movable planters in shared space:
The shared space was initially planned to include planter boxes and plants to reduce the scale of the space and enable both small and larger groups to meet there comfortably. In the space, the researchers strategically placed lightweight pots and planting troughs that provide greenery in a way that enables users to move them easily in response to their changing needs.

FIGURE 6
Configuration Planned by the Researchers for the 1st Week

The initial planter and chair placement was intended to divide the social space into four smaller groups, each with a table and four chairs. The hypothesis being tested was that empowered users who feel ownership of the space would use the space more flexibly and make changes in the space layout to suit these needs. Smaller size spaces were initially defined by the territorial planting because it was thought they would be more amendable than larger places to users’ feeling of ownership. This layout was in plan for one week, with a second planned for the second week. After a week, the following layout was found in the social space:

FIGURE 7
Layout Changed by Users
While the users did not change the planter locations, they had moved the chairs to create one larger group meeting area, leaving only one chair in another corner. The illustrations above show how three chairs were moved to create a meeting space for seven people. The research team then moved two troughs to create one longer divider perpendicular to the window in the centre of the space to allow larger group meetings. This second experimental configuration is illustrated below:

**FIGURE 8**
Researcher-Planned Configuration for the 2nd Week

![Diagram of researcher-planned configuration](image)

Along with this modification, two four-seat groups were rearranged as one five-seat and one three-seat group. This shift was intended to test if unequal groupings encouraged users to move the seats on their own even more. However, a week later, the following planter and furniture configuration was found:

**FIGURE 9**
Changed Layout by the Users

![Diagram of changed layout by users](image)

In the final “user-configured” layout, the two central planters define a corridor in the centre of the space, with two major meeting areas on each side. It appears that once users are provided with alternatives and encouraged to use these alternatives freely, they continue to make changes, but not in predictable ways.

The researchers made no more modifications to seating and planting after the second week. Although they expected that users would make further changes as they had the first two weeks, no change was recorded during the following month of observation.

This mini action experiments indicates how difficult it is to predict actual use, and that easily movable furnishings intended to contribute to users adapting the space to their own needs, only achieve this if they are encouraged to make changes and to “own” the space. Users responded to changes made by the researchers by making changes themselves, although users were most likely unaware that researchers were even present. Once the researchers stopped making changes, the users also stopped making changes. It appears that encouragement to users to adapt a space to their own needs can take the form of a “silent initiator” who, by changing furnishing configurations, makes it evident that others can do so as well.

**Mini Experiment 2: Flexible configuration of meeting table**

The table in the meeting areas have four parts—two semi-circular and two rectangular. In the actual space, the table is larger than drawn in the original plans, allowing even less space for the staff to access the rooms. One design intention was that users, aware of the table’s flexibility, would change the configuration of the four part meeting table and re-arrange the parts to meet their changing needs. However, the table has not been changed since initial installation, even though its size and placement are incremental to those in adjacent offices. The second mini experiment therefore aimed to test how users might be encouraged to manipulate this piece of furniture themselves.

The research team changed the layout as illustrated in the photograph above in order to create easier access for the adjacent offices. Staff in the offices, asked for their opinions about the new configuration, said that this configuration is better than the previous one. However, one week later, the cleaning staff had re-
configured them back to their original layouts (See photograph below). When queried as to why they don’t re-arrange the tables, staff say they feel that the weight of the table parts make them too heavy to re-configure to the experimental shape. Unlike the lightweight plants that were easily moved, the weight of the table parts appear to compromise the table’s flexibility.

These two experiments demonstrate high level of unpredictability in continuously changing client and user needs, which challenge the initial snapshot of the brief. In this paper, we suggest extending the briefing process to span the life cycle of occupancy. Doing so enables the designers, facilities managers, users and other stakeholders to re-fit and adapt the settings according to changing needs.

When briefing is seen only as a pre-design snapshot event with no feedback, it includes no learning. We suggest here that briefing is seen a dynamic process focused on the organisation and including:

**FIGURE 10: Dynamic Briefing Process**

- Pre-design briefing
- Occupancy monitoring
- Post-occupancy evaluation
- Re-briefing and
- Re-configuration

In such a process designers, facilities managers, and users are part of a co-learning process in which all better understand and accommodate each other’s needs.

**CONCLUSION**

The AEMS case study demonstrates that despite careful process, changes in use of space remain somewhat unpredictable. As organisational needs change, the use of space changes too. Rather than assuming that a particular initial design layout is the most appropriate one for user’s future needs, providing the space with a level of flexibility and encouraging users to use the space flexibly among a range of possible configurations, is a way to address this unpredictability. Conducting a post occupancy evaluation, the study revealed that POE findings not only feed back to designers and developers to learn from the actual use of the setting, but also help the users better understand the consequent use of space so they can adapt their settings to meet their own changing needs. Briefing, as a dynamic and ongoing process can capture, develop, and translate stakeholders’ changing requirements to the built environment in order to increase the efficacy and usability of the setting.

As part of such a process, briefing must include not only the design of the physical environment, but also the design of the governance of that setting—rules about space use, administrative procedures, and so on. The approach we are suggesting to briefing puts the organisation and its management of its space use as the ultimate goal of the briefing process.

**REFERENCES**


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