

REHUMANIZING THE FORMAL OPEN SPACE OFFICE DESIGN

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ABSTRACT Open space office design has different type of open plan. From the formal open plan design to the informal open plan. The spatial open plan settings of work organizations affect the organizational and the employee behaviour. The formal settings create effective and efficient space by lining up individuals and exposing them to supervision. The informal setting constitutes a less linear setting where the employees are organized in circles and groups so as to facilitate communication and interaction. The formal settings create more effective, more efficient space and more productive employee in such a way. Yet the employee could not have social structures. The purpose of this qualitative research is to analyze the formal open space office and how to rehumanizing it and yet keeping productivity of the employee and having an effective and efficient space. One of the solutions is to create an indoor plantation and exercise inside the office. The other solution is to create an informal and comfortable eating space.

Keywords: Rehumanizing, Office, Design, Open Plan

1. INTRODUCTION

Office space has been getting a lot attention lately. It is because office space can impact the ability to recruit, as well as the satisfaction and productivity of employees. Second, most people spend more time in the office and work space than in their home. The office space has become an extension of our dwelling, not only as a place where we were doing our professional activities, but also as a place where we related to and cohabit with other people who share that space. This is why offices need to accommodate people physically and let them move while doing their jobs.

Nowadays, as a result of the increasing development of information technologies and the communication systems, the spatial dimension of work has become less important. The desks have gradually shrunk, the worker has gained self-sufficiency, and a new criterion in designing work spaces is the environmental impact. There are researches in environmental psychology show how the environment affects employees in terms of different emotional states leading to various behaviours. This is why architecture nowadays pay more attention to factors such as sustainability, energy saving, use of alternative energy, non-aggression to the environment and also the quality of life of the people who will occupy the space.

In most industries and organizations, there are multiple work styles and preferences for different types of workspaces (from the open plan office space to

the traditional private space). The open plan is the generic term used in architectural and interior design for any floor plan which makes use of large, open spaces and minimizes the use of small, enclosed rooms such as private offices (Becker, 2000). The open plan work environments create more opportunities for observing and learning from those with more experience and different skills. The traditional private space is a small and private closed office.

Open plan office design has a long history. The open plan offices have been found to have both positive effects (increased employee communication and interaction, reduced set-up and renovation time, ability to house more employees) and negative effects (increased noise, distractions, perceived crowding and decreased privacy) (Brennan, et. al., 2002, Maher and von Hippel, 2005).

Dr Vinesh Oommen, whose study has been published in the Asia-Pacific Journal of Health Management, wrote that working in an open plan office is bad for your health. In 90% of the research, the outcome of working in an open-plan office was seen as negative with open-plan offices causing high levels of stress, conflict, high blood pressure and a high staff turnover. There are also a field studies in the 1980s about the open plan concept and largely concluded that occupants were dissatisfied (Sundstrom, 1986)

The formal open office was adopted in work environments housing collar workers (Hofbauer, 2000). This open plan office is based on the premise of lining up individuals and exposing them to supervision. The formal settings create more effective and efficient space, and because the formal setting exposing the worker to their supervision, the formal space can create more productive employees in such a way. The informal open office constitutes a less linear and more informal setting where employees are organized in circles and groups so as to facilitate communication and interaction.

The formal open plan office's setting and its issue regarding the human's health in the open plan office become an interesting phenomenon to be discussed and look for its solutions. This research is about finding the solutions to rehumanizing it for the formal open plan office's layout especially as solutions to create a healthier workspace.

2. METHODOLOGY

This research is a qualitative research. A qualitative research is often used to explore an issue and gain a better understanding of it. This qualitative research

is focusing on exploring the formal open space office layout and the issue within it (such as research by Dr.Vinesh Oommen about working in an open plan office that is bad for your health). After exploring and gaining a better understanding with the issues especially issue about the relationship between the open office and physical comfort, the next step is to analyze and create a concept or solution about how to rehumanizing it in the physical comfort in the formal open space office. The primary data is about the spaces in the office and formal open space office layout. The secondary data is about the workers' satisfaction and comfort in the office spaces. The data are collected from literatures and observation.

Based on the description of descriptive methodology, the research object will be the formal open plan office arrangement and using the recent condition to get factual information about the connection of the phenomena and the effect of it and give solutions. The methodology to analyze the data is descriptive qualitative methodology. Descriptive qualitative methodology is a method to give a description about the facts and the relationship of the phenomena. The fact is an issue regarding to health and comfort for the users in the formal open plan. The phenomenon is about creating a healthy and comfortable formal open office and effective efficient work from the users.

This descriptive qualitative method can examine and observe factors that might be influencing behaviours, environments, circumstances, etc. The goal is to improve practice, presupposes a case/affect relationship between behaviours and outcome. This methodology is to get concepts and solutions for rehumanizing a better place to work (for the formal open plan office's arrangement). First is by understanding the difference between the formal and the informal open plan office, and the occupant satisfaction and well being. After understanding the difference of formal and informal open plan and the problem within it, the next step is to create a problem solving concept of rehumanizing a better place to work. This problem solving concept was created from analyzing the literature and site observation.

3. THE OFFICE LAYOUT

First we should understand the spaces inside the office. A space in the office is an activity area with a boundary. It may contain several different activities, either simultaneous or sequential, and its boundary may be more or less substantial, varying from a solid wall to a line in the carpet. (Raymond and Cunliffe, 1997).

The space in the office can be divided based on its needed by an organization. There are primary spaces (the principal workspaces), the ancillary spaces (its functions which support an individual work group or department), support spaces (its functions which support the work of the whole organization), social spaces (its functions to do with the non-work activities of the occupants), service spaces (its functions to do with the operation and maintenance of the building) and circulation spaces (movement around the office)

The open plan offices is become part of the primary spaces, which is a principal workspaces. Open plan office's arrangements have existed for a long time. From the large regular rows of desks or benches where the clerks, typists or technicians performed repetitive tasks up to a large arrays of open cubicles. In the 21st century, many different companies are experimenting with designs which provide a mix cubicle, open workstations, private offices and group workstations. Based on the spatial arrangements for furniture, fittings and lighting, there are two types of open plan office's arrangement, the formal setting and the informal setting.

The formal setting layout configuration is a simple open plan office space with an orthogonal desk layout where possible clear views across office spaces to enhance communication and connectivity between different functional areas. The formal setting layout creates a regularity of spatial arrangement of furniture, fittings and lighting. The desk positions may be static when supported by local storage or suitable to support flexible working when supported by mobile storage and temporary work areas. The layout is augmented by single meeting / breakout areas.

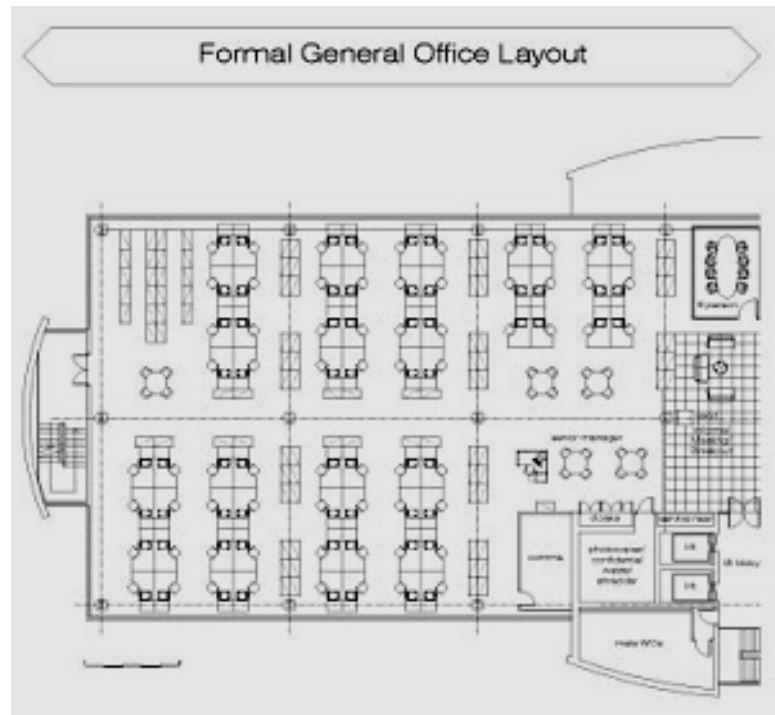


Figure 1. Sample of the Arrangement of the Formal Open Plan Layout



Figure 2. Sample of the Formal Open Plan



Figure 3. Sample of the Formal Open Plan

The informal setting layout is an alternative to the formal layout, which may offer different opportunities to provide higher density solutions for certain floor plate shapes. The informal setting layout creates an irregularity of spatial arrangement of furniture, fittings and lighting. This layout may be utilised to form desk groupings for teams where informal communications and group dynamics are a key consideration. Informal layouts may also be used for aesthetic purposes to soften the effect of large expenses of desks by avoiding repetition. The desk positions may be static when supported by local storage or suitable to support flexible working when supported by mobile storage and temporary work areas.

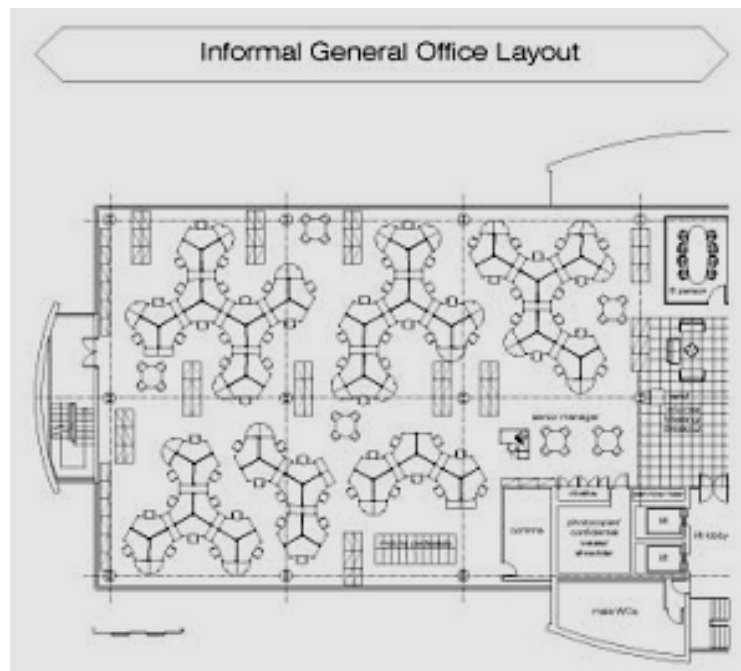


Figure 4. Sample of the Arrangement of the Informal Open Plan Layout

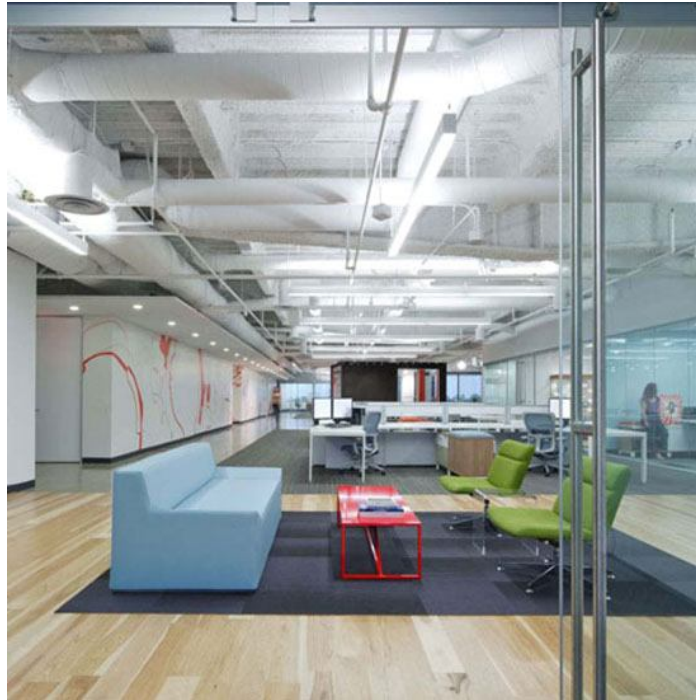


Figure 5. Sample of the Informal Open Plan

4. THE OCCUPANT SATISFACTION AND WELL BEING

The relationship of environmental factors to stress is complex, as sources of stress include a wide range of psychosocial influences on workers. In order to get the maximum from the workers' performance, the environmental comfort and workers' satisfaction need to be met (Vischer, 1996).

Environmental comfort and workers' satisfaction involves three related categories that form a hierarchy and serve to set priorities on workspace change. All three need to be considered if comfort is to be understood in context. At the base of the triangle is physical comfort: basic human needs such as safety, hygiene and accessibility. These needs must be met to ensure that the environment is habitable. Second, there is functional comfort. Functional comfort is defined in terms of users performance of tasks and activities in the work environment (such as appropriate lighting for screen-based work, ergonomic furniture, and enclosed rooms available for meetings and collaborative work), at the peak of the triangle is psychological comfort (the feelings of belonging, ownership and control over one's workspace)

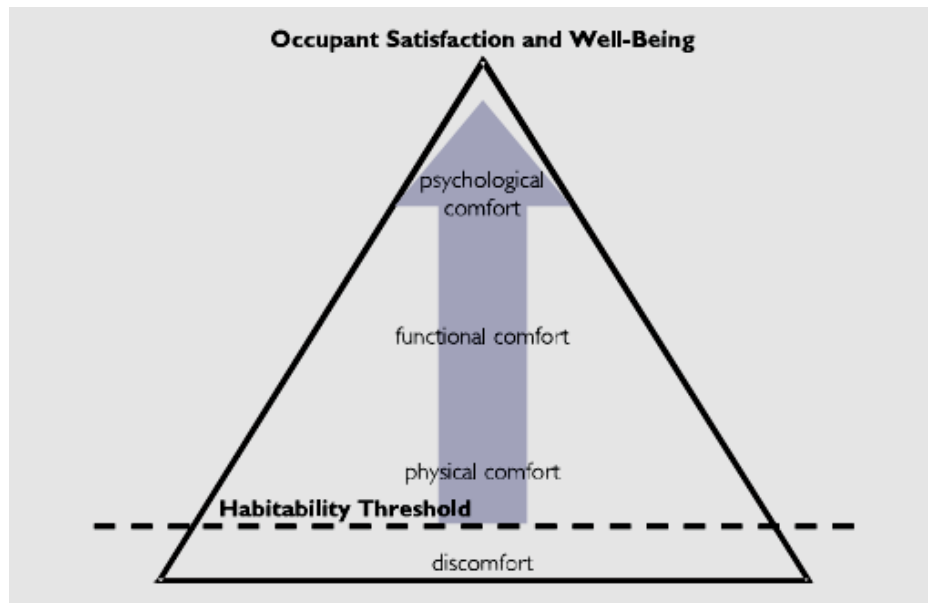


Figure 6. Occupant Satisfaction and Well-being

5. CONCLUSION

Based on the data above, to make the employees can produce more effective and efficient, the physical, functional and psychological comfort need to be satisfied. And based on Dr Vinesh Oomen studies, the open plan office can cause a high level of stress, conflict, high blood pressure and a high staff turnover.

The formal open plan arrangement in the other hand is create more efficient space, but it has less communication and interaction between the workers. With less communication and interaction, it can create more stressed. The solution in is to create a healthier and more socialize space for the formal open plan office so the worker can produce more effective and efficient.

Firstly, create healthier space is using the indoor plantation inside the office. There a study that there are benefits of adding plants to a work place. When plants were added to the interior space, the participants were more productive (12% quicker reaction time on the computer task) and less stressed (systolic blood pressure readings lowered by one to four unites). And after completing the task, the participants in the room with plants present reported feeling more attentive than people in the room with no plans. (Lohr and Pearson-Mims, 1996)



Figure 7. Office with indoor plantation

Secondly, create healthier space by making a place to exercise inside the office. By exercising, it help to create a healthier body and mind. Of course, we cannot exercise all the time, but 1 hour after work, sure can help creating a refreshment, healthier body and mind and less stressed. Exercise can also create communication and interaction between the workers. Some companies has a health club with swimming pool, gym and sauna, or table tennis so their workers can used it before and after work, as well as at lunch time.



Figure 8. Office with a table tennis sports.



Figure 9. Office with a pool table.

Thirdly, create more socialize space is by creating a better eating space for the workers. In offices, the most common formalized social activity is eating (Raymond and Cunliffe, 1997). Good subsidized food by the company can promote healthier eating habits and encourage staff to relax and socialize with their colleagues.



Figure 10. Office with a kitchen dining area.

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