

# Post Occupancy Evaluation (POE)

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## Background

A Person-centered Design is an iterative design process whereby we focus on user experience and their needs. Person-centered Design in infrastructure and facilities design focuses on the users' experience in occupying the place and using the facilities in terms of the users' sensory experience, namely, sight, smell, sound, touch and feel. Good user experience is important because it promotes sense of well-being thus contributing towards improving productivity of the workplace as well as the physical and mental health of the occupants.

## Objectives

The goal of the QI project is to develop a tool to better understand users' experience post occupancy so that we can improve our design for future projects. Through the use of this tool, we wish to gather insights on occupants' experience in using the newly renovated facilities. The insights would allow us to identify areas of improvement for future projects.

## Methodology

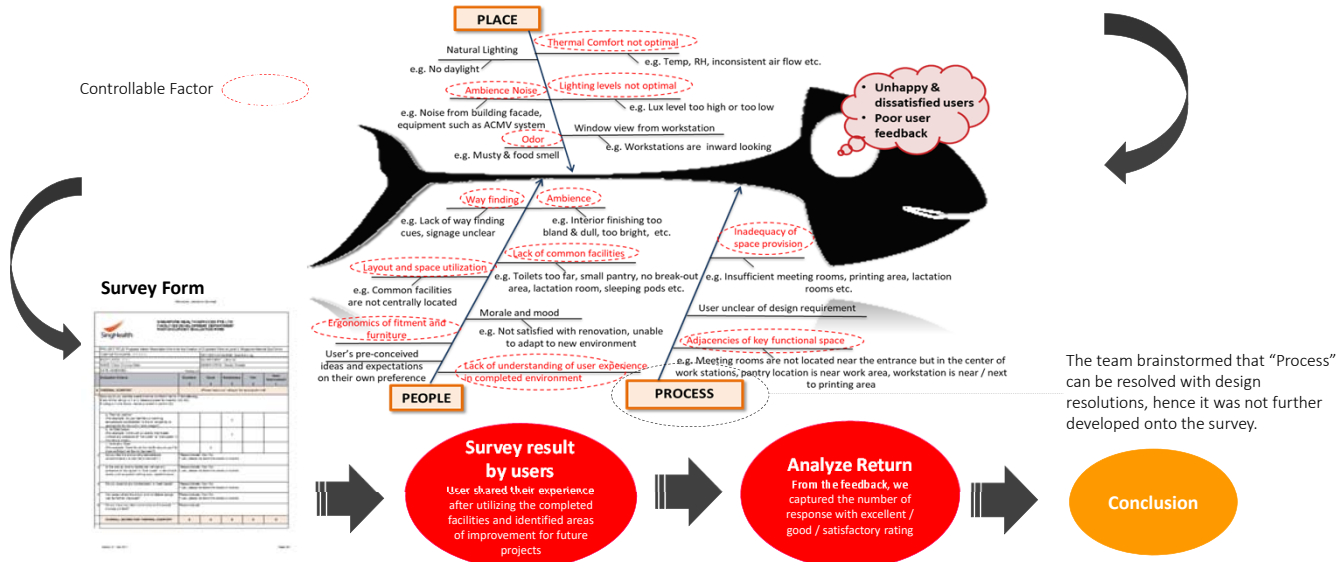
The team discussed and agreed that a **well structure survey** would be an effective tool for gathering the users' feedback on their experience in using the renovated facilities.

The Team used the fish-bone diagram to derive the framework of the POE survey questionnaire by identifying the cause and effect of user experience for Place, People and Maintenance. The following were covered under each category:

- Place** – Thermal comfort, lighting, background noise / sound, environmental quality, way finding and workplace security & safety.
- People** – Way finding, ambience, layout / space utilization and furniture & fitment design.
- Maintenance** – Maintenance of M&E equipment

For each category, the team then identified the related factors to better understand how these factors influences user experience. The factors were then separated into "Controllable" and Uncontrollable" factors, and questionnaires were then developed based on the "Controllable" factors so that **actionable** areas of improvement can be identified once meaningful insights are derived from the users' feedback.

Separate sets of Questionnaires were derived for office and clinical projects for users to provide their response on the Controllable factors.



The team brainstormed that "Process" can be resolved with design resolutions, hence it was not further developed onto the survey.

## Survey Result

Post Occupancy Evaluation Survey were conducted for 3 Clinical projects and 4 Office projects. The return were analysed and the Average Satisfactory Rating (%) are summarised as follows:

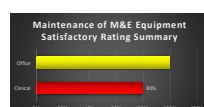
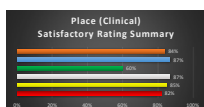
### 3 Clinical Projects

10 out of the 11 evaluation criteria for Place, People and Maintenance achieved an average rating of at least 80% or "Good". The evaluation criteria on "Environmental Quality" achieved a average rating of 60% which is equivalent to "Satisfactory". Users has highlighted that some of the ceiling boards are mouldy and there is also odour in one room. The maintenance team has since addressed the issues.

### 4 Office Projects

As for the Office projects, the average ratings for Place, People and Maintenance were as encouraging, with 8 out of the 11 criteria achieving an average rating of 80% and above. Suggestions for improvement includes Thermal Comfort, Background Noise / Sound and Layout / Space Utilization.

The survey provide a good assessment of the completed projects. Moving forward, the team will focus on the areas for improvement identified to improve the user experience.



## Conclusion

The POEs were useful indicators for evaluating the effect of design on user experience. This would enable us to review and improve our design, space planning and utilization and maintainability of the M&E systems installed.

SingHealth Facilities Department will implement POE for selected projects as a tool for continuous improvement.

## Implementation

