

POST-OCCUPANCY EVALUATION

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Keywords	Design Process, Post Occupancy Evaluation
Category	History and Theory
Type	Class Assignment
Level	Undergraduate
Duration	3 Weeks
Abstract	Following a series of lectures/discussions regarding the design process and particularly the Post Occupancy phase, students work as a team to conduct a "Post-Occupancy-Evaluation" of a given campus building. They perform a variety of research tasks to evaluate the space and then present their findings in a written report.
Objectives	To understand the purpose of Post-Occupancy Evaluations; To understand the process of Post-Occupancy Evaluations; To discover a variety of environmental research techniques (physical measurements, field observations, surveys-questionnaires and interviews, etc.); To learn to hypothesize and to interpret findings; To exercise writing and reporting skills; To practice organization of time and resources; and To learn to work as part of a team.
Criteria	As a group, you will be evaluating the _____ (building or space). Decide among yourselves who is to complete the following Post Evaluation tasks (one person per task) and develop a schedule of when these tasks need to be completed. * Measurements: 1) space (tape measure); 2) illumination (light meter - check daytime and evening, and different locations); 3) temperature (thermometer-check two or three times in different locations); and 4) draw up a floor plan to scale. Give each team member one copy. * Observations of physical traces and environmental behavior. Methods include annotated plans, photographs, and verbal descriptions (Refer to readings and class discussions). * Executive or management interview and environmental walk- through with the

manager. Be sure to make an appointment for this.

* Pilot questionnaire(s) with user(s) and user questionnaire (sample size of 20-25 people). Obtain demographic information (Fr/So/Jr/Sr, student or faculty, staff or management, etc.). Determine use of space (purpose, frequency). Find out likes and dislikes. Use a Likert-type scale for seating and furniture comfort. Use a Semantic Differential scale for a pleasantness rating.

* Safety/code checklist

As a group, write up the results. You may each do one of the sections listed below, or you may choose to do the whole thing as a group. It must be typed.

- Introduction: purpose and basic findings
- Make two or three hypotheses of how you think users will respond to the space.
- Discuss findings based on your user questionnaires.
- Were your hypotheses correct? Yes or no, what explanations do you have?
- What recommendations would you make for improvements in the space, based on the users' needs?
- Appendix, including your questionnaires, annotated plans, photographs with notations, etc.

Evaluation of self and other members of your group. Inevitably, in a team project such as this, a couple of people carry the load and the rest tend to let them. I want to know how much you think each team member contributed to this project. Rate each person's effort and contribution on a scale of 1-5, with 1 being poor and 5 being excellent.

Project Length	Duration of the project is three weeks. Students use class time to conduct the evaluation and write the report.
Presentation	The presentation is in the form of a verbal summary to the class and a written report of findings and recommendations for design changes. The final report also includes actual test instruments, plans, photographs, etc.
Evaluation	The project is worth 100 points. Evaluation is based on quality and completeness of P.O.E. tasks as outlined in Project Requirements (5 tasks @ 10 points/task) and evidence of understanding of P.O.E. process and purpose as demonstrated in the written report (30 points, writing skills (10 points), team evaluation (5), and overall presentation and effort (10 points).
Resources	Readings. "Putting It All Together," in <i>Spaces for People: Human Factors in Design</i> , Section IV by Corwin Bennett (1977). "Better Interior Design Through Post-Occupancy-Evaluation," in <i>ASID Report</i> by Michael Brill. "Post Occupancy Evaluation as Part of the Design Process" in <i>Professional Office</i>

Design by Barbara Dellinger (March/April 1988).

Behavioral Research Methods in Environmental Design by William Michelson, ed. (1975).

Credits The idea for this project was derived, in part, from a research project assigned to graduate students of Ruth Stumpe-Brent, Ph.D., in the Department of Environmental Design and the University of Missouri at Columbia. It was modified to introduce undergraduate design students to a wide variety of research methods at their level of understanding. The basic tasks used by students in their Post-Occupancy Evaluation process are suggested by Corwin Bennett in his book, *Spaces for People*. An article by Evelyn M. Franklin, Ph.D., and Ann Erickson, "Research in an Undergraduate Interior Design Curriculum," in *JIDER*. (1987) also provided inspiration for incorporating research methodologies at the undergraduate level.

Supporting Information Safety Checklist
Excerpted from *Spaces for People: Human Factors in Design* by Corwin Bennett.

Walking/Working Surface.

- Walkways properly marked and cleared
- All floor holes, floor openings, wall openings, and skylights are properly guarded.
- Non-slip mats, gratings, false floors, and other like materials are in use in wet areas and other hazardous- areas.
- All floor surfaces are in good repair.
- All open-sided floors, platforms and runways four feet or more above ground or floor level are properly guarded with toe boards and railings installed.

Stairs and Stairways.

- All stairways and elevated and escalator shafts are clear, handrails provided, and treads and risers are in good repair with non-slip surfaces and adequate illumination.

Ventilation.

- All work areas appear to be properly ventilated with no accumulation of smoke, dust or other hazardous material noted.

Egress Safety.

- Location and easy accessibility of at least two fire emergency exits for each work area confirmed, with special attention to high hazard areas.
- Each fire emergency exit is marked and illuminated.
- The route to safety is clear and unobstructed.
- All emergency doors swing in the direction of exit travel.
- Emergency doors cannot be locked to the inside; each is equipped with panic or other simple type of releasing device.
- All portable fire extinguishers are readily accessible and properly located and show servicing is up-to-date.
- Maximum travel distance for all units is not in excess of 75 feet, or 50 feet in

hazardous areas.

- All fire hoses appear in good condition.

Electrical Wiring, Apparatus and Equipment.

- Extension cords and other temporary wiring have been noted; and do not have breaks, fraying or other defects.
- Electrical equipment operating between 50 and 600 volts is protected against accidental contact by enclosures.
- Each electrical outlet box is provided with a cover that effectively protects the hazard from accidental contact