A Picture Is Worth a Thousand Words: Using Photo-Elicitation to Solicit Hotel Guest Feedback

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Abstract
Executive Summary: Although written surveys have their place in determining how guests view a particular hotel, a graphic-based approach gives them a chance to show rather than just tell hoteliers what is important. One such graphic technique is photo-elicitation, which encourages guests to use images and descriptions to respond to a hotel's design and amenities. In a photo-elicitation assessment, the hotelier simply gives participating guests the use of a camera to photograph whatever catches their eye as being meaningful. Then the guest and hotelier can review the sets of prints (or internet albums) for an explanation of why the guest considers a particular image to be important. In a test at Cornell's Statler Hotel, the 40 guests who participated seemed to be enthusiastic in recording their likes and dislikes. For this pilot study, the researchers handed out one-time-use film cameras and then interviewed the participants to learn more about why they took each photo. The disadvantages of this procedure were the relatively high cost of the cameras and processing and interview time. Using digital cameras and internet photo albums might make for a more economical approach. With their photos, guests pointed out such problems as an armoire door that refused to stay open and a bathroom telephone that was badly placed. On the other hand, participants were delighted with the hotel's beautiful view of central campus and its thoughtful placement of home-like furniture in guest rooms.

Keywords
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by Madeleine E. Pullman and Stephani Robson

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Executive Summary

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Although written surveys have their place in determining how guests view a particular hotel, a graphic-based approach gives them a chance to show rather than just tell hoteliers what is important. One such graphic technique is photo-elicitation, which encourages guests to use images and descriptions to respond to a hotel’s design and amenities. In a photo-elicitation assessment, the hotelier simply gives participating guests the use of a camera to photograph whatever catches their eye as being meaningful. Then the guest and hotelier can review the sets of prints (or internet albums) for an explanation of why the guest considers a particular image to be important. In a test at Cornell’s Statler Hotel, the 40 guests who participated seemed to be enthusiastic in recording their likes and dislikes. For this pilot study, the researchers handed out one-time-use film cameras and then interviewed the participants to learn more about why they took each photo. The disadvantages of this procedure were the relatively high cost of the cameras and processing and interview time. Using digital cameras and internet photo albums might make for a more economical approach. With their photos, guests pointed out such problems as an armoire door that refused to stay open and a bathroom telephone that was badly placed. On the other hand, participants were delighted with the hotel’s beautiful view of central campus and its thoughtful placement of home-like furniture in guest rooms.
About the Authors

**Madeleine E. Pullman**, Ph.D., Madeleine (Mellie) Pullman is an associate professor of operations management at Portland State University. She earned her Ph.D. in business administration at the University of Utah in 1997. She has previously taught in Graduate and Executive programs at Cornell University, London Business School, Southern Methodist University, Colorado State, and University of Utah. Her major research interests include new product and service creativity and design, sustainable food supply chain issues, recreation and experience design, and operations/marketing interdisciplinary issues. Her articles have appeared in various journals and periodicals including Journal of Operations Management, Decision Sciences, Production and Operations Management, Journal of Service Research, International Journal of Service Industry Management, Cornell Hotel and Restaurant Administration Quarterly, Omega, and Journal of Product Innovation Management.

![Madeleine E. Pullman](image1.jpg)

**Stephani Robson** is a senior lecturer of hospitality facilities and operations (skr4@cornell.edu). Her primary research focus has been the effect of environmental factors on behavior in hospitality settings.

![Stephani Robson](image2.jpg)
Managers of all types seek feedback from customers as one means of ensuring that the employees and the facilities are performing optimally, as well as to determine guest expectations and desires. In recent years, some companies have focused on what might be termed “design-driven” hotels—properties in which interior design takes on a prominent role as an element of the guest experience and as a product differentiator. This approach has focused attention on how a hotel interior looks, as well as how it performs. Those brands include W (Starwood) and Hotel Indigo (InterContinental), and also cutting-edge properties in particular markets, such as the Ritz-Carlton Georgetown. Additionally, innovative design-driven hotel groups, such as André Balazs Hotels, Morgans Hotel Group (formerly Schrager Hotels), Joie de Vivre, Kimpton, and KOR Group, are rapidly expanding their range of properties. Many firms have found that their distinctive and accessible design allows them to charge price premiums and become style leaders that garner substantial publicity in the travel press and additional revenue through the sales of ancillary products such as bedding, furniture, and other home accessories.

With this emphasis on the physical component of the guest experience, customary guest-feedback techniques—many of which usually focus on service issues—may not be sufficient to capture the full range of guests’ reactions to the hotel environment. Traditionally, hotel operators typically receive feedback about guest experiences through three approaches: (1) comment cards and surveys (either paper-based, phone-based, or online), (2) mystery shopping, and
(3) focus groups or depth interviews with guests to find out about their expectations and experience. While these techniques give the operator certain types of information, they don’t allow assessment of design elements beyond verbal comments or a simple rating scale.

Surveys and comment cards are often narrowly focused or encourage only a brief response. On the other hand, a detailed survey is cumbersome, costly to process, and still lacks the depth needed to interpret the meaning behind guests’ reactions to the physical property.

Mystery shopping has the advantage of giving a customer’s viewpoint of an entire service encounter with all its nuances. The resulting assessment, however, represents just one person’s experience, can be relatively expensive to acquire depending on the service type, and is best suited for evaluating conformance to existing service standards. This approach is difficult to use for evaluating design, however, because aesthetics are subjective, and a single mystery shopper cannot represent the sum of guests’ design preferences.

Finally, open-ended interviews or focus groups allow customers to discuss relevant topics, guided by a leader’s questions. Through depth interviews on a topic such as the design of a hotel, interviewers can probe consumers’ responses. For example, if the guest says “I think the lamp is cool,” the interviewer might encourage the guest to reveal more information about what made it “cool.” Conversational approaches can explore context issues, changing perceptions, and issues of status and emotional comfort, in addition to other potential drivers of loyalty behavior. This approach often identifies not-so-obvious perspectives to management, but it is time consuming, expensive, and the results require qualitative-analysis skills for interpretation.

Because the above feedback methods are not necessarily the most effective way to evaluate design issues, we propose the use of an image-based guest-research tool known as photo-elicitation. In photo-elicitation, guests are asked to take photographs of physical elements that they considered important and to discuss these images in an interview or as online notations. Research has indicated that photographic images can act as a “can opener” for deeper reflection and discussion and can be enormously helpful in communicating guests’ impressions of design elements that may be hard to put into words.

**An Overview of the Photo-elicitation**

The idea behind photo-elicitation is simple: ask a guest to take photographs of a hotel’s design elements, and then discuss those photographs either in a telephone interview or online. Guests might be approached about participating during check-in, or invited to participate via an in-room card or table tent. Research suggests that providing some form of modest incentive (a free drink or a small room credit, for example) encourages involvement in surveys and other feedback exercises.

In the interests of privacy, it is prudent to ask guests to refrain from taking images of other guests. This can be accomplished by asking that images be restricted to physical elements such as furnishings, fixtures, wall and floor treatments, and lighting. The fewer explicit instructions that guests receive about subjects for their images, the more varied and insightful the images they record are likely to be.

Guests can either be given one-time-use cameras or be asked to use their own digital cameras. The resulting digital files could then be uploaded to a designated secure website. If

**Typical surveys and feedback methods fail to capture the details of how guests view a hotel’s design and operation.**
guests are uploading files, they can append one or two sentences of text to each picture that explains the reason for their image choices, or they could supply their email address to direct follow-up interview questions. When using disposable cameras, follow-up interviews can be conducted by phone or email once the images are developed. The photos must be double printed and numbered or otherwise marked so that both the guest and the hotel have a set of images.

Once images and comments have been collected, management can review the results to identify themes or striking ideas. For example, the guests’ photos might provide evidence of guest-room-maintenance issues, such as mildew buildup on grout, or they may indicate that a particular design element in the lobby catches many guests’ eyes. Conversely, what is not photographed can also be revealing. In some properties, large sums have been spent on design elements that fail to make a noticeable impression on guests, suggesting that funds might be better spent elsewhere in future. The results can be a matter of reviewing and categorizing the responses, or if a more involved study is desired, one can use semantic software such as Wordstat or Text Analyst. For a comprehensive list of software and sources refer to Lau, Lee, and Ho and application examples in Pullman, McGuire, and Cleveland.

Testing the Method

We tested the photo-elicitation technique as a way of soliciting guest feedback through a two-month exploratory study in the Statler Hotel, a 150-room full-service hotel located at Cornell University. During the peak check-in times on Thursday and Friday afternoons, the research team randomly approached 52 guests at check-in and asked them whether they would be willing to participate in the study (two parties declined). We gave the participants a one-use camera, a token gift, instructions, and an information sheet to complete and return with their exposed film. The information sheet requested contact information, demographic information (gender, purpose of stay, and length of stay), best contact times, and responses to a brief set of satisfaction and loyalty scales. In addition to three items for ambience, service, and overall satisfaction, the scale items measured the following four loyalty-behavior items: switching, recommendation to others, negative word of mouth, and loyalty.

The instructions requested guests to use the camera we provided to take pictures of anything in the hotel that made an impression on them, whether favorable or unfavorable. Participants were encouraged to take photographs anywhere on the hotel property and then to return the camera with the completed information sheet when they checked out. They were told that their photographs would be developed and that they would be sent a set of prints for their reference during a one-hour phone interview. For the interview, we asked the participants to pick five to ten photographs of the most significant aspects of their stay and sort those images from most to least positive. The instructions requested guests to use the camera we provided to take pictures of anything in the hotel that made an impression on them, whether favorable or unfavorable. Participants were encouraged to take photographs anywhere on the hotel property and then to return the camera with the completed information sheet when they checked out. They were told that their photographs would be developed and that they would be sent a set of prints for their reference during a one-hour phone interview. For the interview, we asked the participants to pick five to ten photographs of the most significant aspects of their stay and sort those images from most to least positive. The participant and the interviewer then reviewed the prints using a depth-interviewing technique, in which interviewers asked the participants for specific explanations of the images. The interviews were transcribed for each discussed photograph.

At checkout, we received 40 of the 50 cameras that we distributed. Two of those were not exposed. This response rate suggested that most guests were highly engaged in the process, which was confirmed during the follow-up phone interviews. Guests gave detailed and thoughtful responses explaining their image choices, and revealed concerns or impressions that may have been difficult to obtain through other feedback methods.

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1 Wordstat, Provalis Research; www.simstat.com/.
Guests’ responses fell into the following five categories:

Quality of experience. Many of the images taken by guests suggested design elements that don’t directly relate to the delivery of a specific service, but rather contribute to the guest’s total impression of the environment and the level of services provided or implied by that environment. Guests tended to mention the emotional impact of design, such as feelings of warmth, friendliness, and comfort; perceived value from design, such as comparisons to 5-star properties or expected quality for the price; and perceptions of cleanliness and order. The plates in Exhibit 1 are examples of depictions of quality of experience.

Plate 1. “I just love fresh flowers and arrangements. These in particular make a nice focal point for the lobby. By the next morning or late, late that night they had already changed the arrangement. Not that there was anything wrong with the first ones but it was nice to see that they change them so quickly. I wanted to take a picture of the second arrangement but didn’t get a chance.”

Plate 2. “Everything in the room is nice, such as the desk with the internet connection. But all the wires show the opposite: bad thing to the hotel. My first impression is that they didn’t design the hotel well. It looks like a mess. It is just like they did what they told you not to do in a fire class.”
**Design functionality.** In contrast to quality of experience, functionality relates to the effectiveness of an element in terms of achieving a specific goal. Images identified as reflecting functionality depicted practical elements that guests expected to be present and fully functional as part of any hotel stay at a similar property. Examples of functionality (or lack thereof) shown in Exhibit 2 include a poorly adjusted armoire door spring that prevented the guest from comfortably watching television (Plate 3) and a wall-mounted bathroom phone that was constantly in the way (Plate 4).

**Plate 3.** “The armoire was nice, because you could hide the TV if you had people over, but the door must have been broken. The door spring kept causing the door to shut. We had to prop it open with a suitcase to keep it from shutting so I could watch TV. The size of the TV was nice, the armoire was nice, especially since some hotels just place the TV on the dresser, but the door was an annoyance.”

**Plate 4.** “This is a picture of the handicapped bathroom and the placement of the telephone. Every time I stand up or sit down, I knock the receiver off. There are needs for the
phone, so that someone can reach it. But the problem is that I keep knocking the receiver off. Maybe place it lower or more forward."

**Similarity to home.** This category refers to elements that reminded guests of the features or amenities in their own homes, or contrasted with their experiences at home. This reference could be positive ("feels less like a hotel and more like home," shown in Plate 5, in Exhibit 3) or, much less commonly, negative ("seating area is skimpy and not homelike").

**Plate 5.** "This little bureau is just inside the door to the room. The items included elements for making coffee, and the lamp was turned on. This made the room feel less like a hotel and more like home. In particular, I felt having the lamp turned on made the room especially welcoming."

**Sense of place.** Sense of place describes elements that provide a sense of location, time, or culture. Given that this hotel attempts to capitalize on its distinctive location (just as many hotels create environments that are evocative of their location), we considered it important to recognize guests’ responses to these efforts. Sense of place for this hotel included the view from the guest-room windows (Plate 6, in Exhibit 4) and framed artwork in the guest rooms and public spaces showing local landmarks.

**Plate 6.** "This was the best part of staying at the hotel. The view was the very first thing that I noticed as soon as I went inside the room. After a long drive, the beautiful view sets a relaxing tone of the room and is a good start for an enjoyable stay at the hotel. I like sitting in the chair and looking out the window. I didn’t mind being inside. You feel like you’re in an actual place. It is fun watching everyone go by."

**Evidence of thoughtfulness.** Evidence of thoughtfulness comprised indications that the guest’s specific needs were being considered in the design. For example, one guest noted the provision of a second soap dish in the shower stall which made it both easy to reach the soap while showering, as well as prevented the soap...
from becoming soft (Plate 7, Exhibit 5). This attention to detail was perceived as going beyond the expected (providing a place to put soap while showering) to a much more thoughtful and considerate level. In another example, a female guest commented positively on the availability of padded hangers in the closet for use with delicate fabrics, indicating that this feature is both unusual in hotels and much appreciated (Plate 8, Exhibit 5).

*Plate 7.* “I liked that the dish was placed in a higher position. This means that the soap will not get soggy.”

*Plate 8.* “Padded hangers are great amenities for knits [and] sweaters because this keeps shape of the clothing and protects from shape distortion of clothing.”

**What We Learned from the Test**

This pilot test of the photo-elicitation technique gave us an unusual perspective on how guests view a hotel, as well as offering pointers on how to apply this method. Guests were generally happy to participate in the exercise, but the fact that they were approached by students conducting a university research project may have influenced their willingness to take part. Therefore, the high participation rate for the pilot study is likely to be an anomaly.

The quality of the guests’ photographs was highly variable (i.e., we received many underexposed, overexposed, and profoundly blurry images). We cannot say whether this is solely due to the limitations of the one-time-use camera or because we did not provide instructions about
how to use the camera (particularly the flash feature). Since some models of digital cameras have unintuitive controls, we suggest that hoteliers using this technique give instructions on how to use whatever camera they hand out, so that useful images result.

We found that participants not only photographed design aspects that might have been expected, but they also focused on details that might not be captured in standard surveys or comment cards. Criticism took in details such as a hole in the bed sheet or poor positioning of signs, information that is important to management. On the other hand, the positive perspectives showed that participants were noticing details, such as a CD player in each room, that indicated the hotel was thinking about their needs.

While guests took images in almost all parts of the public areas of the hotel as well as of the exterior of the building, guest rooms were the most commonly photographed areas. We think this makes sense, as this is where the guest feels most comfortable taking photos. Because guests spend so much time in the room, they may notice more details there than they see in public spaces. Our results show that design influenced the quality of experience and provided evidence that the hotel cared about the guests. More important, participants also commented on functionality. That is, beyond their reaction to design they discussed what worked and what didn’t. In our pilot study, women paid particular attention to form, interpreted here as the positive home-like attributes of design and the evidence of thoughtfulness revealed through design. In contrast, men paid more attention to the functionality of design and were more critical of it. We found that leisure guests were more positive about the hotel’s ambience than were business guests.

The site for this study was chosen for convenience and accessibility. Though competently designed, the hotel is not particularly design-driven, nor is it in an urban center, where hotels often emphasize design and face a discerning market for high-style hotels. One might expect to see quite different results from a property where guests intentionally choose the hotel for its design reputation. Additionally, guests’ age and profession would be important demographics to capture, since many of design-driven hotels cater to different age groups and professions than do traditional hotels.

Our exploratory study demonstrated that photo-elicitation is a viable and helpful guest-feedback tool. We did find that using traditional photography and phone interviews to be time-consuming, and there were of course costs associated with purchasing the cameras and having the images processed. However, by incorporating digital photography with online image posting and commentary, we feel that photo-elicitation can be simple, effective, and inexpensive.

**Conclusion**

Hotel developers can apply photo-elicitation in existing hotels to develop a sense of how customers perceive their environments and to make design and amenity decisions before a hotel property opens. We believe that design decisions are often made based on a designer’s own interpretations of the guest experience—infences which may not be reflective of the typical customer’s perceptions. Hotel designers rarely have an opportunity to observe how guests perceive and interact with environments once they are created, and therefore may not be fully aware of how some design decisions affect the guest experience. It is the rare hotel designer who has formally studied consumer behavior or been exposed to the details of operating a hotel, and thus the designer relies largely on his or her own travel experience and on input...
from hotel management when determining how to lay out and equip hotel spaces. Given the designers’ aesthetic focus coupled with a somewhat limited view of the guest experience, it is possible that hotel planners make assumptions about guest needs and desires without empirical evidence and incorporate those assumptions into the physical plant. Applying the findings from photo-elicitation studies early during the design process can counter this tendency to design based on assumptions rather than objective data. Designers can incorporate key features such as accessible but screened electrical outlets, convenient and flattering lighting, and well-positioned shower controls into their plans, and make informed decisions about product sizes, finishes, and features for furnishings and fixtures.

Once the property is up and running, managers can use photo-elicitation to make operational decisions and to adjust design elements and amenities. The participants in our study, for instance, appreciated such amenities as padded hangers, pleasantly scented bath supplies, in-room CD players, and complimentary bottled water. Service concerns that caught guests’ attention included poorly functioning cabinet doors, mildew buildup on grout, and uncollected dirty room service trays. Noting these issues can help guide hotel operators in planning day-to-day operations.

The results presented here are just the beginning for understanding consumers’ interaction with service design via photo-elicitation. The combination of images and text provide a rich source of information for the hotel operator for the improvement of existing spaces and procedures, and for the developer and designer in the development of new ideas for effective hospitality design.

The combination of images and text in photo-elicitation provide a rich source of information for hotel managers and designers.

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