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## **Gaining Visitor Consent for Research II: Improving the Posted-Sign Method**

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### ABSTRACT

One method for studying visitors in museums is to audiotape their conversations while videotaping their behavior. Many researchers inform visitors of such recordings by posting signs in the areas under scrutiny. An earlier study tested the assumption that visitors notice, read and understand posted signs (Gutwill, 2003). Interviews revealed that 75 percent of visitors leaving a recording area had read and understood the signs. The current article describes our attempt at increasing this percentage by placing additional signs on the exhibit elements being used, as well as on the camera itself. Interviews of 200 adult visitors found that 99 percent of them knew they had been recorded. We provide details of the improved method for posting signs to inform visitors of recordings.

## INTRODUCTION

Simultaneously audiotaping and videotaping visitors at museum exhibits has become a valuable method for educational researchers and evaluators studying the visitor experience. Recordings allow researchers to analyze in detail visitors' conversations (e.g., Crowley and Callanan 1998; Leinhardt, Crowley & Knutson 2002), as well as body language and physical interactions with exhibits (e.g., Vom Lehn, Heath and Hindmarsh 2002). If visitors can be identified from the recordings, researchers must gain their consent to include them in the research. Federal guidelines for the treatment of human subjects in social science research mandate that before visitors grant or withhold consent they should know they will be recorded, understand how the recording will be used, and know that they may decline being recorded (U.S. Office for Human Research Protections 2002, Ryan et al. 1979).

Many researchers and evaluators post signs at the entrance to the exhibit area under study, informing visitors of the recordings. If visitors enter the exhibit area being studied, researchers infer that they have given their consent to be recorded (e.g., Tulley and Lucas 1986; Lucas, McManus and Thomas 1986).

**A previous study of the posted sign method**—In an earlier study, we tested the assumption that visitors notice, read and understand signs posted at the entrance to the exhibit area (Gutwill, 2003). We cordoned off an exhibit area containing a single exhibit<sup>1</sup> at the Exploratorium, and posted signs at the museum's entrance and at the two entrances into the exhibit area. The video camera and microphones were placed in plain view of

visitors entering the area and using the exhibit. This method of informing visitors was approved by an independent Institutional Review Board to ensure that it complies with federal guidelines for the protection of human subjects.

We conducted 213 uncued interviews with exiting adult visitors, asking if they noticed the signs, knew they were being videotaped and felt bothered by the recordings. The interviews revealed that 75 percent of the visitors had read and understood the exhibit signs. Of the 52 visitors (25%) who had not, only 8 reported that they felt bothered to any degree by the recordings being made, and only 2 felt that they would avoid the area next time. We concluded that the likelihood of upsetting visitors with this method is low; nonetheless, we decided to conduct a follow-up study of an augmented method, with the hopes of increasing the number of visitors who would notice and read the signs.

#### ATTEMPT AT IMPROVING POSTED SIGNS

Our goal in the present study was to improve the posted-sign method so that more visitors would know they were being videotaped at an Exploratorium exhibit. As before, we placed signs at the entrance to the museum (Figure 1) and signs at the two entrances to the exhibit area under study (Figure 2). Bilingual in English and Spanish, the sign at the museum's entrance stated: "You may be videotaped in certain areas of the museum today. Signs will be posted in the research areas that will be videotaped." The purpose of this sign was to allow visitors to avoid the entire museum if they did not want to risk being recorded. The two signs at the entrances to the exhibit area stated: "You are being

videotaped at this exhibit—now.” The exhibit signs contained further information about the purpose and uses of the research data. The camera, unattended but running continuously, was placed in plain sight above the exhibit, and the microphones were hanging from the ceiling directly over the exhibit.

Figure 1	Figure 2
	
<p>You may be videotaped in certain areas of the museum today. Signs will be posted in the research areas that will be videotaped.</p>	<p>You are being videotaped at this exhibit — now.</p> <p>RESEARCH IN PROGRESS</p>
<p><b>When:</b> Audio/videotaping until 4pm today.</p> <p><b>Why:</b> The Exploratorium is trying to learn about how visitors move through the museum and use the exhibits, in order to improve them. Please proceed normally.</p> <p><b>For questions or concerns, please go to the main office.</b></p> <p>Video for research will not be used for commercial or broadcast purposes, but may be shown at education or museum conferences to inform our colleagues.</p>	<p><b>When:</b> Audio/videotaping until 4pm today. If you do not want to be videotaped, please come back later.</p> <p><b>Why:</b> The Exploratorium is trying to learn about how visitors move through the museum and use the exhibits, in order to improve them. Please proceed normally.</p> <p><b>For questions or concerns, please go to the main office.</b></p> <p>Video for research will not be used for commercial or broadcast purposes, but may be shown at education or museum conferences to inform our colleagues.</p>

We then made the following changes to our original method:

- The words “Research in Progress” were added in large print to the signs posted at the entrance to the videotaping area (Figure 2).
- Small signs were added to each exhibit in the area under study which read, “You are being videotaped at exhibits in this area.” (Figure 3).
- A small sign was placed at the center of each cordon which stated, “You are being videotaped at exhibits in this area.”
- A blinking light and small “recording” sign were placed on the camera itself.
- Three or four exhibits were placed together inside the cordons, creating more of an “area” being studied. Only one exhibit was videotaped at any given time.<sup>2</sup> We hoped that in an area containing several exhibits, visitors would become accustomed to the idea of the recording and interact more naturally with the specific exhibit being studied.



Figure 3. Sign at exhibit.

Table 1 compares features of the original and new methods for posting signs to gain visitor consent. Figure 4 shows the entire set-up used in the new method.

**Table 1. Comparing methods for posting signs to obtain informed consent**

Features of Method	Original Method	New Method
Sign at museum entrance	✓	✓
Signs at entrances to exhibit area	✓	✓
Camera and microphones in plain view	✓	✓
Cordons around exhibit area	✓	✓
Signs on exhibits in area		✓
Signs on cordons		✓
Blinking light and sign on camera		✓
Number of exhibits inside cordons	1	3-4

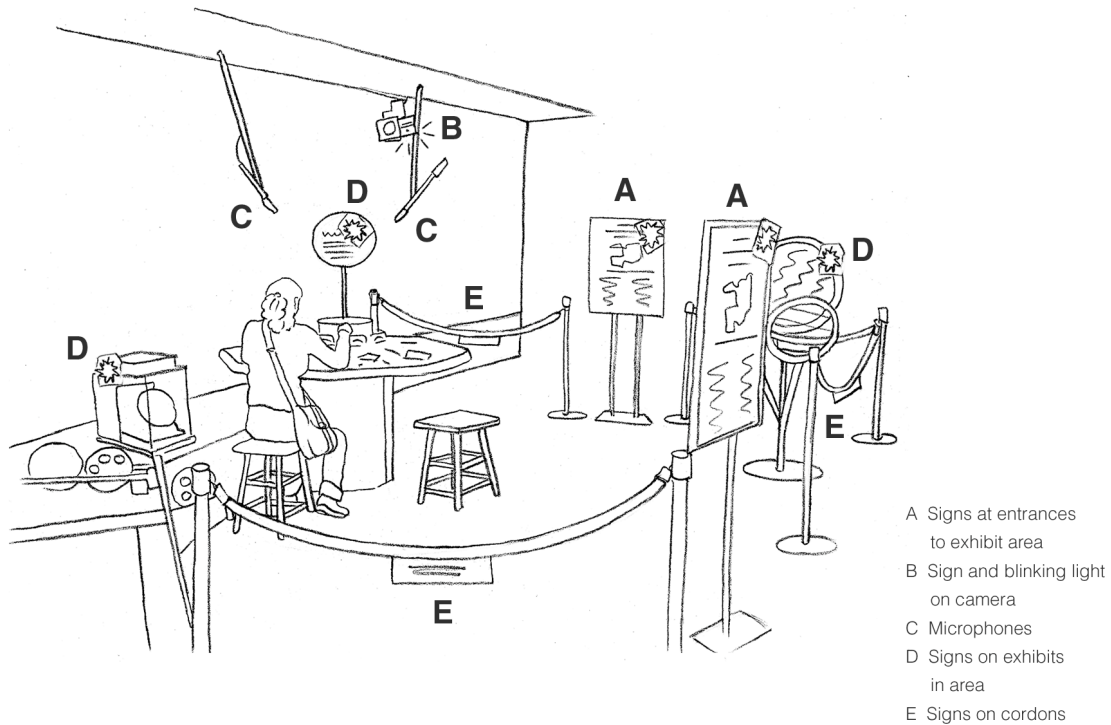


Figure 4. Exhibit set-up.

We used the same uncued interview method and instrument as before, stopping 200 adult visitors as they exited the area and asking whether they knew they were being videotaped and how bothered they were by it.

## RESULTS OF NEW METHOD

We found that 197 visitors (99%) knew they were being videotaped inside the area under study. The 3 visitors who did not know they were being recorded felt bothered “not at all” by it, and all said that they would still enter the recording area if they could do it all over again. This suggests a significant improvement over the previous method for posting signs, which successfully informed only 75% of the visitors that they were being recorded.

To determine which aspects of the new method seemed most effective at informing visitors about the videotaping, we first asked all participants how they knew they were being recorded. After gaining their spontaneous responses, we then directed their attention to each of the signs and the camera (with blinking light and sign), and asked them which specific object(s) they had noticed. Table 2 shows that the signs posted at the entrance to the exhibit area and the signs attached to individual exhibits within the area were noticed by the largest fraction of visitors in the study.

**Table 2. Fraction of visitors (N=200) noticing different informational objects\***

<b>Object noticed</b>	<b>Mentioned spontaneously**</b>	<b>Mentioned when prompted</b>
Sign at entrances to exhibit area	88%	92%
Signs on exhibits in area	53%	78%
Video camera	30%	46%
Sign at museum entrance	18%	Not asked
Signs on cordons	18%	Not asked
Microphones	17%	Not asked
Blinking light and sign on camera	5%	17%
Interviewer with clipboard	1%	Not asked

\*Informational objects that were added for the new method are shown in gray.

\*\*Most visitors (83%) mentioned noticing more than one object.

The new method was more effective than the original method at informing visitors that they are being recorded. One remaining question is, Are all the features of the new method essential to achieving a success rate of 99%? While this question requires additional studies for a rigorous answer, the self-report data are suggestive. An analysis of the data reveals that none of the visitors noticed only the camera with its blinking light and sign. Since the blinking light and camera sign appear to be insufficient for informing visitors of the recording, they could probably be omitted from the method. However, we argue that the camera should still be placed in plain view, so visitors may locate it after reading one of the signs.

There may have been an unintended side effect of the new method for posting signs, which emerged in our exhibit evaluation studies. After switching to the improved signage, we noticed an increase in the number of visitors who spontaneously mentioned to each other that they were being recorded. We have not yet rigorously measured this effect of visitor reactivity, nor its impact on visitor behavior. Apparently, including several exhibits in the area under study did not reduce reactivity as much as we had hoped.

## DISCUSSION

Although the new method for posting signs was not completely effective at informing visitors that they are being videotaped, it showed substantial improvement over the more typical method. With 99% of visitors knowing that they were being recorded and the

remainder feeling “not at all” bothered by it, the risk of recording visitors against their wishes seems quite low. We hope that other museum researchers will adopt some of these techniques in order to meet their obligations to visitors.

As audio/videotaping visitors becomes a more ubiquitous method for collecting data in museums, we also hope that other institutions will study methods for gaining informed consent in their own environments. For instance, the posted-sign method may be more or less effective in museums with walls and rooms. Perhaps other museums will even find ways to reduce visitor reactivity without sacrificing visitor understanding that they are being recorded.

In conclusion, our improved method seems an inexpensive and effective way of informing visitors of recordings made at museum exhibits.

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## NOTES

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<sup>1</sup> Throughout this article, we use the term exhibit to mean “exhibit element,” rather than “exhibition.”

<sup>2</sup> A total of 8 different exhibits were videotaped during the study. Using several exhibits helped ensure that the results of this study would be independent of a particular exhibit’s features or design.

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