

Using Handouts to Increase Label Reading

Stephen Bitgood & Donald Patterson
Jacksonville State University

Arlene Benefield
Center for Social Design

Introduction

Only one out of ten visitors stop to read exhibit labels in the typical museum or zoo exhibit (e.g., Bitgood, Nichols, Patterson, Pierce, & Conroy, 1986). However, if labels are designed carefully, a high percentage of reading may occur (e.g., Bitgood, 1991). Too often, however, it is not practical to redesign all of the ineffective labels in a facility. The time and cost would be prohibitive for most museums. There is, however, an alternative – providing supplementary devices that prompt visitors to read.

Hirschi & Screven (1988) placed questions directly on the exhibit glass, the answers of which could be found by reading the existing labels. Questions were of the type: "Do Polar Bears Hibernate?" "Why is Japanese Armour Lightweight?" Reading of pre-existing labels dramatically increased with the addition of these questions.

The current study attempted to use questions as label-reading prompts in a way different from Hirschi & Screven. Questions were written on a sheet of paper and made available as a handout to visitors. The answers to the questions could be found in the exhibit labels.

Method

Handouts with ten questions were placed at the entrance of two exhibit areas – one in the Predator Building of the Birmingham Zoo and one in the Alabama Cave exhibit at the Anniston Museum of Natural History. On each handout were ten questions designed to stimulate visitors to read exhibit labels.

The Predator Building at the Birmingham Zoo contains a variety of predatory animals ranging from large cats (e.g., tigers, cougars, leopards) to small mammals (e.g., jaguarundi, arctic fox) to small insects. Exhibit labels are placed on large 2-foot by 6-foot panels on either side of the exhibit window. Each panel contains about 300-400 words and it takes an average reader well over one minute to read these panels. In

addition, there are interpretive panels on predation between exhibits that are not associated with any specific exhibit.

The Alabama Cave exhibit at the Anniston Museum of Natural History is comprised of two sections: an entrance area with eight interpretive panels containing text and pictures; and a simulated limestone cave with typical cave formations and animal species commonly found in such caves. To read all of the eight panels in the entrance area takes the average reader from 25 to 35 minutes.

Since exhibit labels in both of these areas (Predator House and Alabama Cave) were rarely examined by more than a small fraction of visitors, and since the cost of replacing these labels was prohibitive, the handout method was trial tested in an effort to increase label reading by visitors. Some staff objected to other forms of intervention (e.g., placing questions directly on the exhibit glass) because of aesthetic concerns.

A dispenser for the handouts was placed in the path of visitors as they entered the exhibit area. About 20 percent of visitors took a handout when it was made available in this manner. During one period of time at the Birmingham Zoo, handouts were given to visitors as they entered the building. We also tried a modeling procedure in which one of the investigators picked up a handout as visitors were entering.

Adult visitors were selected for recording as they entered the exhibit area. The first visitor to pass an imaginary line was selected for observation. When recording was completed for that visitor, the next visitor to pass the same line was chosen. Observers recorded the following events: (1) whether or not the visitor took a handout; (2) time reading exhibit labels (stopped and visually fixated on the text); (3) total time viewing the exhibit; (4) whether or not they used the handout. Timing was recorded on a stopwatch and observers attempted to be as unobtrusive as possible. Since there were usually many visitors passing through the exhibit area, the activities of the recorders almost always went unnoticed. Occasionally, reliability checks were made

by having two observers independently record the behavior of the same visitor and compare the results. Over 98% of these checks produced agreement between observers on whether or not visitors stopped. And, 83% of these checks were in agreement of time within a 2-second margin.

Over 200 visitors were observed in the Birmingham Zoo's Predator House and 95 in the Anniston Museum Alabama Cave.

Results and Discussion

Predator House. Figure 1 compares three methods of distributing the handouts: self-selection from a dispenser, modeling, and human distribution. About 20% of the visitors took a handout when it was made available in a dispenser, over 40% when it was given to visitors, and 98% took it when it was handed to them. When visitors observed the model take a handout, the percentage of takers increased to 98%. Of those who took or were given the handout, approximately 25% were observed using the handout as they walked through the exhibit building.

Figure 1. Percent of Visitors who Took Predator Pursuit Handout Under Three Conditions

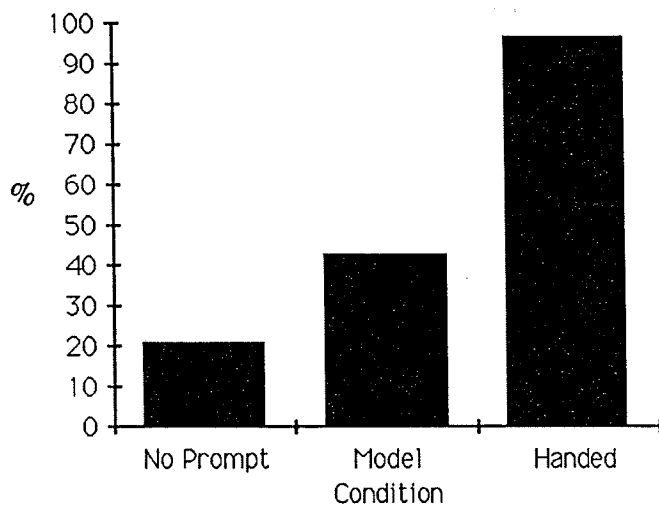


Figure 2 compares label reading for those who used the handout and those who did not across the 13 major exhibit areas. Those who used the handout were more likely to read labels, especially for the first few exhibits. Overall, visitors who used the handout looked at an average of 34% of the exhibit labels compared with nonhandout visitors who read an average of about 6% of the labels. Inspection of this figure shows that there was a dramatic drop in reading for visitors using

the handout when they arrived at Exhibit #6, the eagle exhibit. The decrease may have been the result of two factors: (1) the eagle exhibit competed for visitor attention with the river otter exhibit since they were on opposite sides of the walkway; and (2) the label text was much smaller for this exhibit than for others.

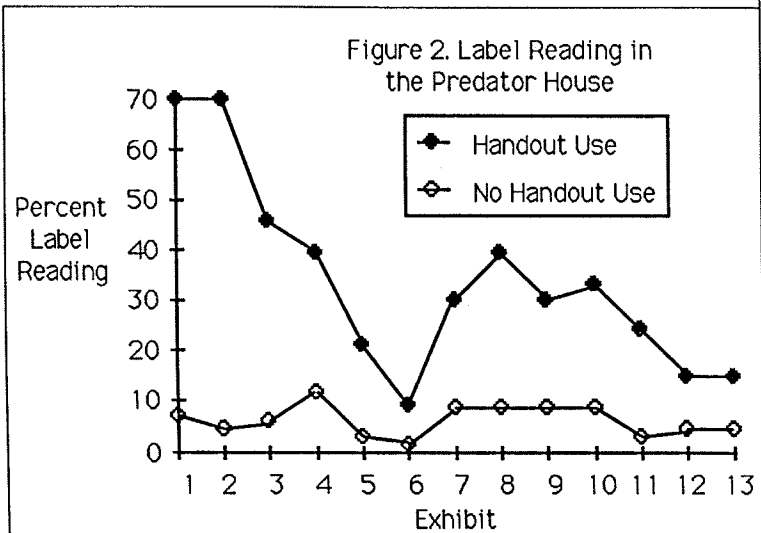


Figure 3 shows the average reading time for each of the 13 exhibits in this study. With only two exceptions, the handout users read for a longer average time than the no handout users. Despite this longer time, only one or two visitors actually read a label long enough to complete the entire label.

Figure 4 is a graph of the viewing time of the exhibit not counting the label reading time. For every exhibit, handout users viewed longer than nonhandout users. Note that there was a trend toward decreased viewing time across exhibits for both conditions. This "object satiation" effect has been observed numerous times in museum and zoo settings (e.g., Bitgood, 1987; Melton, 1933).

Alabama Cave. Figure 5 illustrates the difference between those who received the handouts and those who did not in the Anniston Museum of Natural History Alabama Cave exhibit. Similar to the results from the Birmingham Zoo, visitors with handouts were more likely to stop to read the exhibit labels than visitors without the handouts. The difference between these conditions is smaller than for the Zoo study. Two factors may account for this difference. First, no record was

Figure 3. Mean Reading Time in Predator House

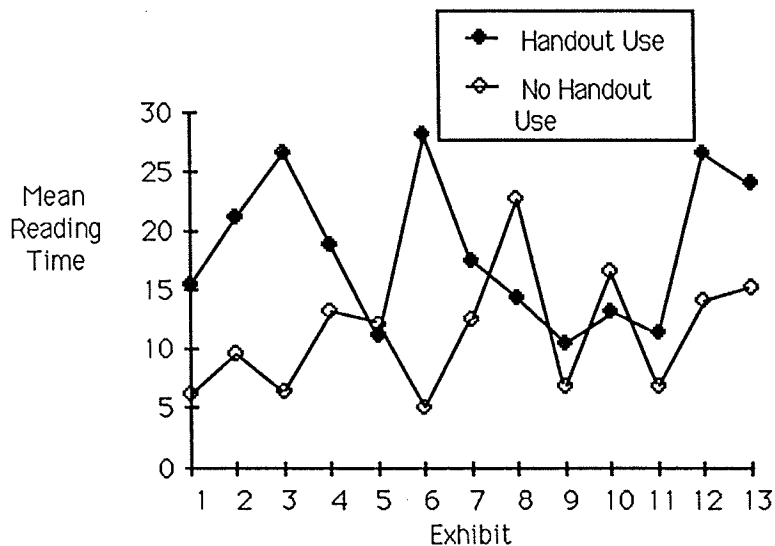


Figure 4. Exhibit Viewing Time at Exhibits in Predator House

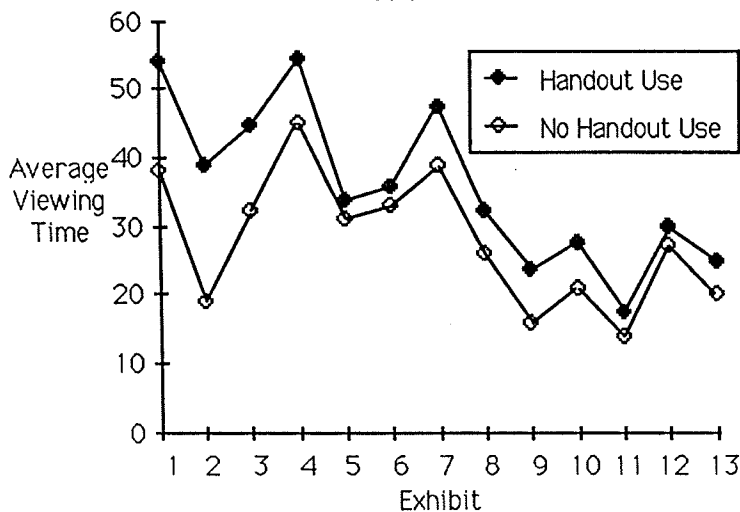
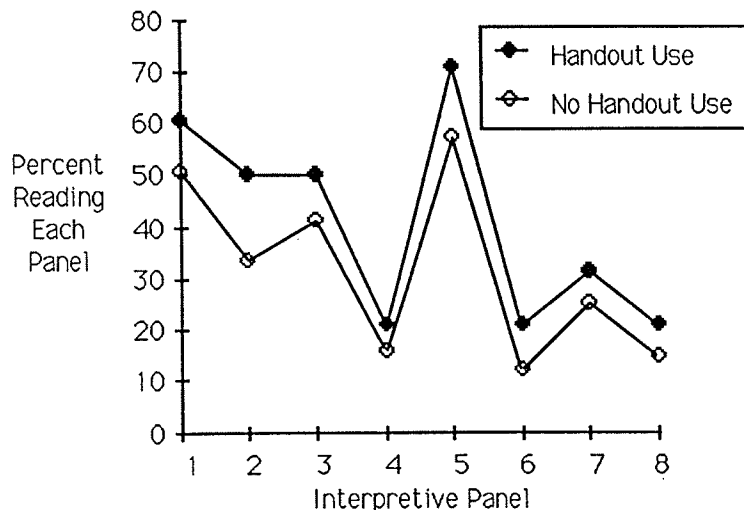


Figure 5. Percent Reading in Alabama Cave Exhibit



kept whether the visitor actually used the handout in the Cave exhibit, whereas in the Predator House data included only visitors who used the handouts. Second, the exhibit labels were concentrated in one area of the cave exhibit rather than distributed throughout the building as in the predator house.

General Discussion

Although this study demonstrated that the handouts were successful in increasing label reading, the results were not all positive. There are advantages and disadvantages to the handout technique. One of the advantages was that the method does not require altering the exhibit itself so that aesthetic protests from curators are less likely to occur. On the other hand, handouts seemed to have a decreasing effectiveness over time. Placing questions on the glass near a label such as used by Hirschi & Screven (1988) may have the advantage in this regard. In addition, the problem of distribution is minimized.

References

- Bitgood, S., Nichols, G., Patterson, P., & Conroy, P. (1986). *Effect of Label Characteristics on Visitor Behavior*. Technical Report No. 86-55. Jacksonville, AL: Center for Social Design.
- Bitgood, S., England, R., Lewis, D., Benefield, A., Patterson, D., & Landers, A. (1987). Visitor Satiation at the Zoo. Presented at the Southeastern Psychological Association, Atlanta, GA.
- Bitgood, S. (1991). The ABCs of Label Design. In S. Bitgood, A. Benefield, & D. Patterson (Eds.), *Visitor Studies: theory, Research, and Practice, Volume 3*. Jacksonville, AL: Center for Social Design. Pp. 115-129.
- Hirschi, K., & Screven, C. G. (1988). Effects of Questions on Visitor Reading Behavior. *ILVS Review*, 1(1), 50-61.
- Melton, A. W. (1933). Some Behavior Characteristics of Museum Visitors. *The Psychological Bulletin*, 30, 720-721.