

Attention to Labels

Attention includes two levels: *sensory orientation* and *motivational attention*.

- *Sensory orientation* refers to detection or registration of the sensory information on consciousness. Will visitors notice the label? Glances at the label suggest this type of attention.

- *Motivational attention* involves focusing attention to the point where visitors attempt to read the label. Motivational attention involves provoking visitors to read and can be measured by an actual stop to read the label.

It is important to separate these two aspects of attention because they are influenced by a different set of variables.

Sensory Orientation

Bitgood, Benefield, & Patterson (1990). The importance of label placement: A neglected factor in exhibit design. In *Current Trends in Audience Research*. Chicago, IL.

Effective labels require more than a clear message written in a digestible form. This report from three separate studies at different institutions demonstrates the importance of where the label is placed.

The first study conducted at the Anniston Museum of Natural History found that labels directly in visitors' line-of-sight averaged 65.9% readers while those eight or more feet above the floor were read by only 21.3%. Labels positioned so that the visitor had to turn from the exhibit object were read by an average of only 30%.

The Social Animal Building at the Birmingham Zoo provided somewhat similar findings. Labels placed high overhead were read by an average of only 20.5%; labels placed in the rear of the exhibit were read by 10.5%, and labels placed in the visitor's line-of-sight were read by an average of 32.2%.

At the North Carolina Zoo, labels placed overhead were read by only 6.3%, labels placed on the railing (within the visitor's line of sight) were read by an average of 31.2%; labels placed on the side of the exhibit were read by 28.0%; and labels placed to the rear of an exhibit were read by 9.0%. Even under extreme crowding conditions when visitors could not read the rail label (but could read an overhead label), there was a tendency to wait their turn and read the rail label while looking at the animal.

These three studies along with data collected by others strongly suggest that line-of-sight placement is critical for facilitating visitor reading.

Bitgood, Benefield, Patterson, & Litwak (1990). Influencing visitor attention: The effects of life-size animal silhouettes on visitor behavior. In Bitgood, Benefield, & Patterson (eds.), *Visitor studies: Theory, research, and practice, vol. 3*. Jacksonville, AL: Center for Social Design. Pp. 221-230.

The purpose of this study was to test the impact of life-size animal silhouettes as backgrounds for interpretive label text. Painted plywood shaped like several species of antelope served as the background for short informative labels about the antelope. Silhouettes were placed in three locations, one on the main trail, one on the trail leading to the exhibit overlook, and one at the overlook to the rear of the exhibit.

This study demonstrated that eye-catching, life-size silhouettes of animals are effective in capturing visitor attention to a label. Not only was visitor attention attracted to the labels, but the silhouette increased the usage of the exhibit since it enticed more visitors to walk down the pathway to the exhibit overlook.

Major Variables That Influence Sensory Orientation

While other variables may also influence whether visitors detect the presence of a label, the following five are of utmost importance:

(1) *Line-of-sight placement*: Labels are more likely to be read if they fall easily within the visitors' line of sight in terms of height off the floor and proximity to objects being viewed.

(2) *Size of letters*: Labels are more likely to be read if they have letters large enough to read easily from the point at which visitors stop.

(3) *Contrast between label and surrounding setting*: Labels are more likely to be read if they are easy to distinguish from the background.

(4) *Lighting*: Labels are more likely to be read if lighting is focused on them and if lighting is sufficiently bright to read easily.

(5) *Visitor circulation pattern*: Labels are more likely to be read if they are in the circulation pathway of visitors.

Other Readings on Attention

Visitor Behavior (1989). Volume 4, Issue #3.

Motivational Attention

Hirschi, K., & Screven, C. (1988). Effects of questions on visitor reading behavior. *ILVS Review: A Journal of Visitor Behavior*, 1(1), 50-61.

This study attempted to provide empirical evidence for the impact of labels that ask questions. The study was conducted at the Milwaukee Public Museum with family groups of visitors.

During baseline, families were unobtrusively tracked through five exhibit areas and time spent reading labels and viewing exhibits was recorded.

Short, add-on labels which asked questions were then installed in the exhibits. These questions (e.g., "Do bears hibernate?" "Did Japanese women commit Harikari?") could be answered by reading the information already in the text.

Reading times increase 1300% after the questions were added from a mean of 6.6 seconds before the installation of the questions to a mean of 95 seconds after the questions were added. In addition, families who viewed the exhibits in the presence of questions tended to stay and view the rest of the exhibit for a longer period of time.

Bitgood, S., Nichols, G., Pierce, M., & Patterson, D. (1986). *The effects of instructional signs on museum visitors*. Technical Report No. 86-70. Jacksonville, AL: Center for Social Design.

Visitors in the Alabama Cave, a simulated limestone cave, were studied under several conditions:

- Baseline (before supplementary labels were added to the cave's entrance);
- Dark adaptation condition (the label at entrance suggested visitors allow their eyes to adjust to the dark);
- Find-the-animal label in which a list of animals (snake, frog, pack rat, salamander, bats, bird) were identified by photograph and name;
- A condition in which both labels were placed in the cave entrance.

Visitors were observed from the time they passed into the cave interpretation area until they left the cave. Total time in the cave and the interpretation area were recorded. As they left the cave, they were asked to indicate which animals they observed in the cave.

Results

- A higher percentage of label readers was observed in the "Find-the-animal" condition than in the "Dark adaptation" condition.

- Find-the-animal label was read by 96.6% of adults and 78.6% of children, while the dark adaptation label was read by 62.5% of adults and 56.5% of children.
- The presence of either label was correlated with an increased amount of time viewing the cave with the largest increase associated with the find-the-animal label.
- An average of 1.7 animals were detected during baseline, 1.2 during dark adaptation condition, and 4.0 during the find-the-animal condition.

Even children read the Find-the-animal label. Since each animal was identified by name and photograph, the reading task was easy and the search appeared to be fun.

Variables that Influence Motivational Attention

Once the label is noticed, the next step is whether visitors are motivated to read. Thus, this type of attention is related to whether visitors will read and how much of the text they will read. Will they only read the title of the exhibit? Or will they read the entire label text? Since this type of attention involves motivation, it is important that label developers understand their audience. Front-end and formative evaluation are critical for this understanding.

1. *Statements/questions that provoke interest:* Several studies have demonstrated the power of asking provocative questions. However, it is difficult to know what will provoke interest unless it is tested on visitors.
2. *Provide a motivating task ("Look for ..."):* Labels that challenge visitors to engage in tasks such as find hidden objects or make comparisons between/among objects can motivate visitors to read. They can provide the "hook" that gets visitors more interested in the subject matter.
3. *Humor:* While the use of humor can be tricky, it can also be motivating if carefully used. Judy Rand' (1985) paper titled "Fish Stories that Hook Readers..." has some excellent examples of humor.
4. *Short text:* The number of words on the label has been repeatedly shown to be a strong motivational variable for reading. Consistently, studies show that visitors are more likely to read short labels (i.e., less than 75 words).
5. *Good contrast between letters and background:* If it is easy to discriminate between the letters and the background, reading is more likely to occur. When selecting color combinations to be aesthetically pleasing, designers often select letter and background colors that create poor contrast.