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Evaluation

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Motivating Visitors With Interactive Labels

by Randi Korn

In the past, botanic gardens have concentrated on providing scientific plant labels, analogous to museum object identification labels, to inform visitors about plant collections. Written interpretation that educates casual, unguided visitors about horticultural and botanical concepts is a relatively new idea in landscaped environments. Fortunately, ongoing evaluation studies and research conducted in museums have provided a resource model and incentive for viewing botanic gardens as viable settings in which to study visitor behavior and informal learning.

The Heritage Garden, located within the Chicago Botanic Garden, is one of several major areas that now has signs to interpret the underlying concepts of the plant exhibits. This garden was designed to introduce visitors to the plant world as well as to the entire botanic garden. It is situated between the parking area and the Education Center and it is the first garden area visitors see as they walk from their car. The staff considers the Heritage Garden to be the ideal teaching garden because it displays plants in a classified system.

The Heritage Garden is a circle divided into quadrants with a main path that runs through its center. Interpretive signs, which were installed in 1984, were placed so they could be viewed from the secondary paths that surround the quadrants. Two quadrants display plants grouped together according to a taxonomic system, arranged according to the increasing complexity of their reproductive structure, the flower; another quadrant displays plants grouped by geographic origin, and a sculpture of Linnaeus, the father of taxonomic botany, is the main feature of the fourth quadrant. A raised, circular garden with plants and flowing water is at the center of the area.

Observation data, collected during the summer of 1985, indicated that 95 percent of the visitors who entered the Heritage Garden used the main path through its center to get to another location and did not tour the garden. In addition, the raised center garden attracted attention, and visitors were drawn to that area; after viewing it, they would continue on the main path toward the Education Center and exit the garden. Visitors were not motivated to tour the garden and therefore did not read the signs.

This surprised and disappointed the staff, as the garden was designed as an introduction to plants geographically and conceptually. The problem seemed to be that the interpretive signs could not be seen from the garden's entrance and thus provided no inducement to tour the garden. In addition, orientation information was not available to instruct visitors about where they were and what they could experience in the area.

Adding an Advance Organizer Label

An advance organizer introduces the visitor to conceptual information contained in the exhibit: what it is about; how it is relevant to them; how the information is organized; and what they can expect to learn if they tour it (Lakota 1976; Griggs 1983). Orientation information placed at the entrance to an exhibit allows viewers to make a decision as to whether they are interested.

Several techniques were incorporated with an advance organizer to encourage visitors to tour the Heritage Garden and to read and to interact with the interpretive labels: a question written to draw attention to the key concept of the Heritage Garden was used as a headline; questions were also inserted in the text, and visitors were encouraged to find the answer by visiting a particular area of the garden; and a flip panel reinforced the key concept. The flip panel included text and a question for visitors to answer. Below the question were hinged panels with illustrations. Visitors chose an answer and received feedback by lifting a panel. After developing the concepts for the advance organizer, it became apparent that the existing interpretive labels did not adequately communicate the taxonomic ideas displayed in the garden. Therefore, staff decided to add interactive flip labels to the existing signage displayed throughout the garden. Design criteria for text size and layouts followed suggestions by Beverly Serrell (1983).

The advance organizer also provided visitors with a map of the physical layout of the Heritage Garden. This map specifically told visitors how the plants were organized and suggested the route they should take to tour the garden. Since the plant families were arranged from simple to complex flowers, the suggested route was a crucial orientation element.

Before observation data was collected, the physical design and content of the advance organizer and flip signs were pre-tested. An initial problem was detected with the advance organizer. Visitors, after reading the information and interacting with the flip panel, were still not motivated to tour the Heritage Garden. The copy was rewritten, using very direct language, inviting visitors to "visit the Heritage Garden to discover more about plants." In addition, visitors were guided as to where to begin their tour. These changes improved the user rate and allowed us to begin collecting the observation data.

Observation data had already indicated that a high percentage (95%) of those who entered the garden chose not to tour the Heritage Garden. Further observation data

were collected after a mock-up of the advance organizer and mock-ups of additional interpretive signs including flip panels were added. Observations were focused on the attention and holding power of the advance organizer and its power as a motivational device. In addition, a random selection of visitors was interviewed upon exiting the Heritage Garden to collect data pertaining to the effectiveness of the physical design and content of the mock-up flip panel signs.

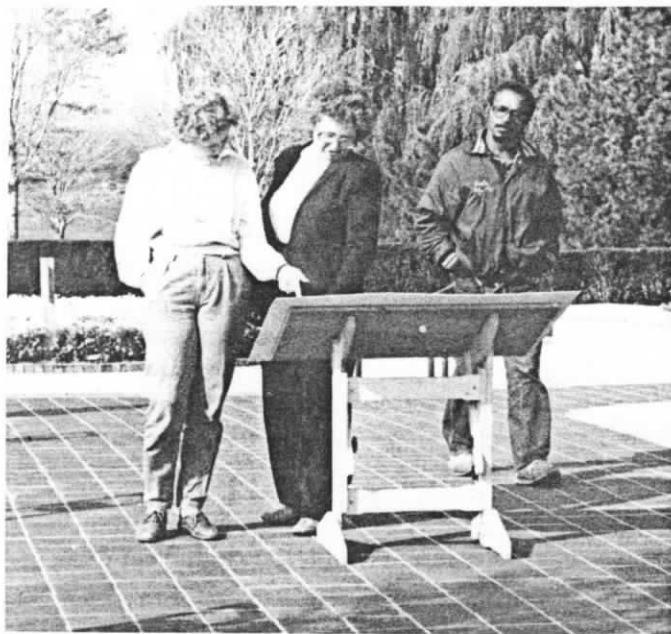
Two groups of randomly selected visitors were asked to complete a questionnaire to test their knowledge of the concepts presented in the Heritage Garden. A measurement of entering knowledge was obtained from a group of visitors who had never toured the garden (control group). A measurement of the maximum communication potential was obtained from a group of visitors who were asked to tour it and read all the interpretive signage (cued visitor group).

Results from the observation data indicate that 65 percent of the visitors who entered the Heritage Garden stopped at the advance organizer for three or more seconds. Of those who stopped, 53 percent were motivated to stay longer than fifteen seconds to read some of the available information. The heading in the form of a question ("What makes one plant family different from another?") not only focused on the garden's key concept but may have contributed to the interest visitors had in reading the remaining copy.

Twenty-seven percent of those who read the information also interacted with the flip panel. The flip, located on the lower right hand corner of the advance organizer, was often the last piece of information that was read. Therefore, visitors had to read or skim the whole panel before they would reach the flip. This was intentional because the question of the flip could have only been answered after reading the information on the panel. Sixteen percent of the visitors who read the advance organizer chose to tour the Heritage Garden at that time in the suggested sequence, that is, to read at least five of the fourteen interpretive labels and interact with at least two of the four flip signs. (This study did not take into account the number of people who returned to tour the garden at another time during their visit.)

The control group, which measured entering knowledge of visitors, scored 37 percent on the questionnaire. This indicates that much of the information in the Heritage Garden is not previously known by visitors. The cued visitor group, which measured the maximum teaching potential of the interpretive signs, scored 86 percent on the questionnaire. Visitors who took the time to read the available interpretive information showed cognitive gains in a test immediately following a tour of the Heritage Garden.

There are other interesting garden areas within the Chicago Botanic Garden that are often overlooked by visitors. This study represents an effort to begin to experiment



A large orientation sign with a map, information, questions, and flip-up labels helped motivate more visitors to tour the garden. Chicago Botanic Garden

with advance organizers as motivational devices in informal learning environments and to encourage visitors to tour garden exhibits and read the available interpretive labels.

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