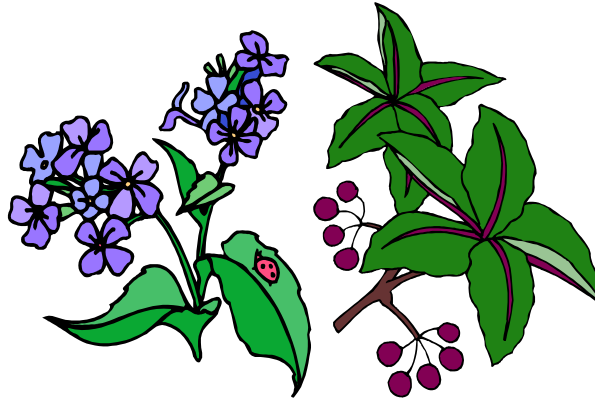


Oak Park Conservatory



Front-end Evaluation User Test for Audio Tour

February 4, 2003

submitted by
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TABLE OF CONTENTS

Executive summary of user test	2
Process of user test	4
Comments: The Fern Room	4
Recommendations: The Fern Room	5
Comments: The Tropics Room	6
Recommendations: The Tropics Room	7
Comments: The Desert Room	8
Recommendations: The Desert Room	9
Comments: Equipment	9
Recommendations: Equipment	10
Comments: Tour map	11
Recommendations: Tour map	11
Appendices	12
Focus group participants	13
Sequence of user test	14
Fern Room: Responses to questions	15
Tropics Room: Responses to questions	19
Desert Room: Responses to questions	24
Equipment: Responses to questions	27
Participants / Equipment used / Comments	28
Tour map: Responses to questions	29

Executive Summary

USER TEST FOR AUDIO TOUR

Terrie Nolinske, Ph.D., Principal of TNI Consultants in Professional Development, was contracted with in January of 2003 to conduct a user test of the newly developed audio tour of the Oak Park Conservatory. Terrie worked with a Board Member and Chair of the Education Committee to develop the protocol for the user test.

The user test was conducted at the Oak Park Conservatory on Sunday, February 4, 2003 from 9 am - noon. A convenience sample of people included an 11 year-old girl, three young men whose ages ranged from 16-20 years, and four men and women whose ages ranged from 41-60 years of age. Only one participant was knowledgeable about plants.

Overall, participants were *really* excited about the audio tour! They felt the tour was appropriately paced and provided them with relevant, interesting information. Key points and recommendations include the following:

Stops, Information. With the exception of the Introduction, Overview of Ferns, Aroids, Desert Overview and Coffee Tree, most stops provide the appropriate amount of information in an acceptable amount of time. All participants felt the tour was well paced.

Animals. Participants suggested that some information about the birds would be nice, while acknowledging that it is a Conservatory tour!

Signage. It is important to have colored signs visibly placed on the path of travel that corresponds to colored markers on the tour map. Each sign marking a tour stop should contain a color photograph of the plant, plant name and name of the tour stop. Existing signage should be re-positioned to better focus visitor attention. If visitors cannot find a plant, they lose focus and pay no attention to the audio tour. There are issues with signage in all three rooms.

Directions / Path of Travel. Use of compass directions is confusing. Describe locations of designated plants using some significant landmark in a room. Additional signage may be needed to point visitors in the right direction, especially in the Fern and Tropics Rooms.

Equipment. Participants recommended using the Sony or Koss headsets with the Coby CD players. Neck straps were recommended, unanimously. Participants found it easier to use the controls via remote but expressed concern about durability or remote control.

Map. Participants loved the map. The size is perfect as is but produce from card stock. Change the layout so that the map is slightly enlarged. The tour numbers and names at the top of the map page can be made smaller. Use at least 12- point size; sans serif fonts are most legible. Need less cluttered layout on the reverse side.

Education Program Extensions. There are an infinite number of ways to extend the information presented in this audio tour. The Conservatory is a phenomenal resource for the community at large, and special interest groups, teachers and students in particular. Here are several suggestions and recommendations to the Education Committee, in thinking about additional programming, special events or temporary exhibits:

- Develop reference materials – one booklet for each room; include photographs of each plant, the plant name and a bit of history or story about each plant, how people used the plants historically and how these same plants are used today
- Provide a bibliography of materials / resources for further study by room or by plant species
- Develop educational programs that can be presented offsite (e.g., at YMCA, school classrooms K-12, day care centers)
- Could link an offsite outreach program to a Conservatory tour whereby someone from the Conservatory goes out to a classroom for two hours on a Tuesday afternoon one week. Information is presented and an activity is done. A week later the teacher then brings her class to the Conservatory where the children have a multi-sensory experience, including an experiential learning activity led by a docent.
- Conduct teacher workshops – teaching teachers how to use the Conservatory as a resource – for them as teachers (e.g., how they can use information on plants in all aspects of their curriculum – applied to reading, music, math, language arts, science); workshops can also teach teachers ‘botany 101’, so teachers feel better prepared to bring their students to the Conservatory.
- There was fabulous information in the original script that had to be omitted from the final audio tour – use this information as the basis for developing on site or outreach educational programs
- Each of the three rooms lends itself well to an entire curriculum! One could develop a lesson on each of the three ecosystems, interdependence of plants and non-human animals and humans, medicinal plants, edible plants, etc.
- The Conservatory should also think seriously about acquiring temporary exhibits related to plants. Many such exhibits tour the country. These exhibits could be set up in the multipurpose room / lobby area. Such events always lend themselves well to complementary programming and repeat visits.

USER TEST FOR AUDIO TOUR

PROCESS

Terrie Nolinske, Ph.D., Principal of TNI Consultants in Professional Development, was contracted with in January of 2003 to conduct a user test of the newly developed audio tour of the Oak Park Conservatory. Terrie worked with a Board Member and Chair of the Audio Tour Committee to develop the protocol for the user test.

Members of the Board of the Oak Park Conservatory identified nine residents of Oak Park, to participate in the user test. Participants included an 11 year-old girl, three young men whose ages ranged from 16-20 years, and four men and women whose ages ranged from 41-60 years of age (see appendix). Only one woman stated she was knowledgeable about plants, while one man and one teenager stated they had some knowledge about plants. The remaining six stated they knew nothing about plants. All participants knew how to operate compact disc players (CDs).

The user test was held at the Oak Park Conservatory on Sunday, February 4, 2003 from 9:00 am - noon. The group met in the multipurpose room at the Conservatory for refreshments and an orientation to the morning. Participants were told that the purpose of this user test was to determine whether any changes needed to be made to the audio tour before the final recording was done. Ann Joachim handed out CD players and headsets to each participant, who put them on and practiced using the controls. Tour maps were also given to each participant (see appendix). Participants were asked to make comments or suggestions on their map during their tour.

To minimize error in recall, participants toured one room of the Conservatory at a time and then returned to the multipurpose room to share their experience and impressions (e.g., tour fern room, debrief, tour Tropics, debrief, tour desert, debrief).

Participants were started on their tour in pairs, each pair beginning after the pair before had completed the first stop in a room. This staggered the start times and prevented participants from crowding each other on the tour.

THE FERN ROOM

Participants expressed confusion about the main concepts in the Fern Room. They were not sure what united these plants. Participants were not sure whether all plants in this room were ferns or not. Participants saw many beautiful flowers, but the audio tour seemed to focus primarily on the ferns.

Participants commented that listening to "two introductions" was confusing and too long!

Participants loved the orchid stop!

COMMENTS: THE FERN ROOM (cont'd)

Finding Stop Two: Bull Horn Acacia, was difficult. Trying to locate and identify ferns, as instructed by the audio tour, was also difficult.

Once they found it, participants liked the Bull Horn Acacia. They particularly enjoyed the story of the symbiotic relationship between the Acacia and the ants. They spent quite a bit of time studying the plant and wondered whether ants could actually be found on the plant in the Conservatory.

RECOMMENDATIONS: THE FERN ROOM

1. Shorten the Introduction to the audio tour, keeping the Conservatory history.
2. May want to hang some historical (and current) photographs of the Conservatory in the lobby. Visitors could explore while listening to the Introduction to the audio tour.
3. The Introduction should have its own track, separate from the Overview to the Fern Room. The two perceived “introductions are too confusing and too long.
4. Have visitors listen to the Overview while in the Conservatory lobby. Otherwise, it is too long to stand in the entryway of the Fern Room and listen to both the Introduction and the Overview.
5. Is Bird of Paradise (Stop 3) always blooming? If so, fine. If not, reword the script.
6. Provide some information about the Ponderosa Lemon at Stop 5. Visitors are captivated by these huge fruits but are given no information!
7. Label the orchids involved in the tour (Stop 5) to better focus visitor attention.
8. Re-think how to give directions to locate tour plants in this room. May want to give directions using the central path as a point of reference – especially for the Australian Tree Fern.
9. Do not use compass directions (e.g., north, southwest). Very confusing.
10. Add Spanish Moss to Stop 6: Bromeliads or delete mention of moss from script.
11. Provide a bibliography of materials / resources for further study.
12. Coordinate labels of tour plants in the Conservatory with colors on the tour maps.

RECOMMENDATIONS: THE FERN ROOM (cont'd)

13. Make signage for the tour more prominent. Signage should include the tour stop number as well as photographs of the plants on the tour and their names. It is too difficult in this room to find the ferns on the tour. This may help.
14. Develop reference materials – three pamphlets – one for each room. Include photographs of each plant along with the plant name and a bit about it.
15. Check on the pronunciation of 'sisal'.

THE TROPICS ROOM

Participants described the main idea of the Tropics Room as a place where food and things we use comes from, including coffee, coca, bananas, dates and shellac. Everyone loved Stop 9: Chocolate / Coffee Trees, but agreed that the coffee script was too long. It was also very difficult, if not impossible to actually view the coffee tree.

The Overview was quite long, made tolerable because the environment was pleasant to look at while listening.

Several stops in the Tropics Room proved very difficult for participants to find, including the Cycads (male and female), Fiddle Leaf Fig, Window Plant, Princess Palm, Panama Palm and the Dumb Cane. Participants were frustrated because they couldn't focus on listening to the information on the audio tour if they had not located the plant and didn't have something to focus their attention on!

Participants enjoyed the fish, birds and turtles and suggested adding a stop about George, the parrot. In fact, several participants were distracted from the audiotape by the animals! It often became difficult for participants to hear the audiotape, even when the volume was turned up, due to visitors mimicking the birds or the birds vocalizing on their own!

Participants reported using the map more in this room than the other two. Due to the various pathways in this room, it is difficult to find tour stops. Because of that, placement of signage for tour stops is critical in this room, as are additional way finding signs (e.g., arrows pointing toward the path of travel).

On Stop 12, The Aroids, it was helpful to name several of the aroids and ask the visitor to look around to find them, by instructing the visitor to look for it at opposite or right side of the path. Please make it easier to find the Dumb Cane and label this plant!

RECOMMENDATIONS: TROPICS ROOM

1. Identify more optimum placement of signage in this room for plants on the tour (especially the Cycads -- male and female plant, Fiddle Leaf Fig, Window Plant, Princess Palm, Panama Hat Palm and the Dumb Cane). Re-position signage for instantaneous identification.
2. For those stops with multiple plants, make sure each plant on the tour has a sign with the stop number and plant name (e.g., Fiddle Leaf Fig and Window Plant)
3. Are there always blossoms on the banana tree? If not, rephrase script.
4. Place the banana tree more precisely on the map.
5. Add Dumb Cane to the map.
6. Delete 'calcium oxalate' from the script.
7. Shorten the coffee part of Stop 9: Chocolate / Coffee Trees (remove the third world comments and references)
8. Between Stops 8 and 9, ask visitors to look up to see the flowers.
9. May want to think about adding questions at some stops. This catches visitor attention to will help draw them back to the tour if their mind is wandering. It also gets visitors to start thinking!
10. At Stop 10: Fiddle leaf Fig Tree / Window Plant – delete 'Typically, tropical soils are thin and nutrient poor.' Interesting, but lengthens an already long passage.
11. The script for the aroids gets long. It is difficult to follow the third paragraph in this section...easier to follow when reading than listening. Too many concepts in compressed time.

THE DESERT ROOM

Participants described the main ideas in the Desert Room as ‘adaptations for low moisture’ and ‘water conservation’.

There was lively, protracted discussion about Stop 14: The Oasis and Stop 16: Desert Overview. Some participants felt that the Desert Overview should be the first stop in this room, rather than The Oasis, because the Desert Overview gives more of an overview of the ecosystem. An oasis is more of a sub structure found in this ecosystem.

Participants suggested that visitors walk into the Desert Room and proceed directly to the east wall of the room, between the benches, to listen to the Desert Overview. Once they have heard that, they can backtrack to The Oasis, near the entryway of the room and proceed with the tour.

Participants suggested that the Desert Overview contain a phrase like ‘there are different environments in arid areas’, so that visitors will understand why it is so cool in the ‘desert room’.

Some participants found it a bit odd to have photosynthesis brought up in the desert! Some suggested that the concept be brought up earlier in the tour for fear that visitors think it only occurs in desert plants.

At Stop 14: The Oasis, the etrog was difficult, if not impossible, to find. The etrog needs to be more visibly identified as part of this tour stop. Also at this stop, the beginning of the third paragraph might contain something like “To your left”, inviting visitors to look at the pond towards the etrog. This would help direct visitor attention.

Participants suggested that a sign containing the word “Euphorbs” (and tour stop number) be added. Existing signage is confusing, because it identifies individual plants and not classes of plants.

Participants *really* liked Stop 17: Cacti! Most agreed, however, that it would be helpful to add visible and informative labels / identification for cacti. Most participants became confused when directed to look for the prickly pear. Again, given where participants are standing at this point in the audio tour, the signage for the prickly pear needs to be located in a more visible spot (or an additional sign added). Two participants had difficulty locating the cactus with cotton on it.

There was some discussion about whether signage warning visitors not to touch the cacti was necessary. Studies show that visitors do not read most signage. But some visitors may wonder how sharp those spines really are! Has the Conservatory had any experience with reported injuries from cacti touches?!

All were intrigued by the story of the Century Plant growing through the Conservatory roof!

COMMENTS: THE DESERT ROOM (cont'd)

A suggestion was made to post a better photograph of the Century Plant growing through the roof, accompanied by a short story about the event. If this already in place, it should be re-positioned or made larger and more noticeable.

All participants agreed that it was easy to navigate in this room. They also agreed that the information presented at each stop was great!

One participant suggested that the Curiosity Corner be referred to in the script but not further discussed.

RECOMMENDATIONS: THE DESERT ROOM

1. Wherever the Desert Overview is placed in sequence on the tour, it needs to be more visibly marked.
2. The following plants need to be more clearly identified:
 - Euphorbs
 - Etrog
 - More prominent cacti – including the Prickly Pear and the Century Plant
3. To find Stop 19: Agaves, you do not need to say 'walk ahead'. Just need to tell the visitor 'to turn'.
4. Decide whether or not the Desert Overview should be the first stop in this room or the third; sequence The Oasis stop accordingly. From a content standpoint, it makes sense to give the Desert Overview as the first stop in that room. Doing so, however, is a bit awkward from a logistics standpoint, since one enters the room, proceeds to the middle/end, only to backtrack to the entrance and recommence.

EQUIPMENT

All participants were familiar using CD players. All participants stated that the carrying cases for the CD players were too bulky and cumbersome to carry around. Participants were unanimous in their recommendation not to bother offering a bag for the CD player.

All participants recommended using a neck strap to carry the CD player around. The wrist strap tends to rub on clothing, which loosens the headset. Also, the attachment to the headsets that worked the best was the one where the cord to the headset plugged straight into the CD player. The style that did not work well, was the headset cord that had a piece of plastic at the juncture of the cord and the CD player. This 'knob' of plastic tended to catch on clothing and loosen the headset.

EQUIPMENT (cont'd)

The Koss and Sony headsets were comfortable and worked well. Two people who tested the Colby headsets said the headsets produced terrible sound and were uncomfortable. The metallic headset was unanimously voted the worst option!

Many participants found it difficult to turn the CD players on. Some had to use their nails to push the control button.

Participants loved the idea of the separate volume control option. They also liked the idea of the model with the remote control on a separate control cord. Participants questioned whether these 'external controls' would break easily and stand up to multiple users. In fact, one of the testers accidentally broke the clip for the remote!

RECOMMENDATIONS: EQUIPMENT

1. Think about purchasing one model of CD player and use exclusively; may be easier for volunteers and staff
2. Make sure the control buttons on the CD player are large and easily operated
3. May want to purchase several CDs with the remote (or with just the volume); track durability / longevity
4. Explore industrial models of CD players and do a cost/benefit analysis of price, features and durability
5. Use the neck strap, no carrying bag

COMMENTS: TOUR MAP

All participants loved the map! They liked the size it is now and felt that a larger map would be too awkward to carry. Although none of the participants used the CD player instructions on the back of the map, they felt the Conservatory should keep the instructions there, just in case.

All participants agreed that the names and numbers of the tour stops should stay at the top of the page and the map with the names of the tour stop remain at the bottom of the page.

RECOMMENDATIONS: TOUR MAP

1. Make the map from card stock. This makes it easier to use on tour.
2. Keep the overall dimensions of the 'paper' on which the map is printed the same size it is now.
3. Layout the side with the CD player instructions differently (e.g., use a photo or graphic on the brochure cover – far less print, shorten instruction points for CD player)
4. On the side of the tour map that has the stop number/name on the top with the graphic of the map on the bottom: make the top part smaller and enlarge the map. Try not to use a point size less than 12. A sans serif font is easier to read.