

Museum Visitor Studies, Evaluation & Audience Research

Randi Korn & Associates, Inc.
118 East Del Ray Avenue
Alexandria, VA 22301

**Formative Evaluation:
Exhibits Developed for the
Big Cypress National Preserve
Visitor Center**

Accession Number: BICY:00079

Prepared for
EDX Exhibits
Seattle, Washington

TABLE OF CONTENTS

INTRODUCTION	1
Methodology.....	1
Data Analysis and Reporting Method.....	1
PRINCIPAL FINDINGS: TRIP PLANNER.....	2
Background Information	2
Evaluation Findings.....	3
Recommendations	3
PRINCIPAL FINDINGS: PANTHER TRACKING.....	5
Background Information	5
Evaluation Findings: Iteration I.....	6
Evaluation Findings: Iteration 2	8
Recommendations	11
PRINCIPAL FINDINGS: SCALING THE HEIGHTS	12
Background Information	12
Evaluation Findings: Iteration I.....	13
Evaluation Findings: Iteration 2	14
Recommendations	15
APPENDIX	17

INTRODUCTION

This report presents findings from a formative evaluation conducted by Randi Korn & Associates, Inc. (RK&A) for EDX Exhibits, who is developing exhibits for a new Welcome Center at the Big Cypress National Preserve in south Florida. EDX Exhibits designed three prototype exhibits for the evaluation.

In the spring of 2009, RK&A conducted a front-end evaluation for EDX Exhibits. In the evaluation, RK&A tested concepts to be explored in the exhibits developed for the new Welcome Center at Big Cypress National Preserve. Based on findings from this study and discussions between EDX Exhibits and Preserve staff, three exhibits were selected for testing in the formative evaluation: Trip Planner, Panther Tracking, and Scaling the Heights. The exhibits were tested at the Oasis Visitor Center at the Big Cypress National Preserve in July 2009.

METHODOLOGY

To understand visitors' experiences with each prototype exhibit, RK&A conducted cued and uncued observations and interviews.

RK&A observed visitor groups using the three exhibits to understand how visitors use the exhibits, particularly noted which aspects of the exhibits they were attracted to and whether they had visible trouble using the exhibits. As the visitor(s) used the exhibits, the evaluator took notes on his or her behaviors. Not all visitors observed were interviewed.

RK&A interviewed visitors after using the exhibits to understand to what extent visitors understood the exhibits' content as well as to identify barriers to conveying the content. Interview guides were used to focus the interview, although the evaluator also probed visitors as needed (see Appendix A for the interview guides).

Since formative evaluation is intended to identify and problem-solve any unforeseen barriers, RK&A took an iterative approach to the evaluation, meaning that, when appropriate, the prototypes were revised and retested at various stages throughout the evaluation. Two exhibits—Panther Tracking and Scaling the Heights—were revised and retested during the evaluation; the revisions and results are discussed in detail in the Principal Findings sections for each exhibit.

DATA ANALYSIS AND REPORTING METHOD

The data are qualitative, meaning that results are descriptive, following from the nature of observations and interviews. In analyzing the data, the evaluator studies behaviors and responses for meaningful patterns and, as patterns and trends emerge, groups similar behaviors and responses. Trends and themes in the observation and interview data are presented from most- to least-frequently occurring.

PRINCIPAL FINDINGS: TRIP PLANNER

BACKGROUND INFORMATION



FIGURE I. TRIP PLANNER PROTOTYPE

KEY MESSAGES

This exhibit is intended to help visitors plan their visit to the Big Cypress National Preserve based on the amount of time they plan to spend in the area. It is also supposed to raise visitors' awareness of the activities available on the Preserve.

EVALUATION OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors' understanding of the exhibit messages (e.g., what visitors can do at Big Cypress Swamp Region, time needed to do activities);
- ◆ Explore visitors' perceptions of the usefulness of the information specifically in regard to time, categories, and specificity of information (e.g., will they use the information to plan their visit?; are there different categories of activities they would prefer/expect?);
- ◆ Identify any language and concepts that are challenging, misleading, or do not resonate;
- ◆ Identify whether the concept of the wheel is challenging;
- ◆ Identify strategies to address any problematic aspects of the exhibit.

EXHIBIT PROTOTYPE DESCRIPTION

The Trip Planner prototype presents verbal descriptions of activities visitors can take part of in the Preserve (see Figure 1). Visitors move a wheel to one of three different timeframes (half-day, one day, and two+ days) and read the activity descriptions in four categories: (1) Driving, Camping; (2) Hiking, Walking, Biking; (3) Fishing, Paddling; (4) Hunting, (September - April) ORVs.

At the Oasis Visitor Center, the exhibit was displayed on an easel. The evaluator did not manipulate the exhibit during the evaluation.

EVALUATION FINDINGS

VISITOR DEMOGRAPHICS

RK&A observed 15 visitors using Trip Planner and interviewed eight visitors; most observations and interviews were uncued. Interviewees ranged in age 27 to 54, and more than one-half were male. Most interviewees were visiting the Preserve for the first time, and more than one-half of interviewees were from Europe.

OBSERVATION FINDINGS

- ◆ Of the three exhibits observed, visitors stopped at Trip Planner the least.
- ◆ About one-half of visitors who stopped at the exhibit initially had trouble moving the wheel—trying to turn the wheel near the display where the timeframe is instead of using the intended knobs. All but one visitor eventually used the intended knobs.
- ◆ Almost all visitors who used the exhibit spent less than one minute at the exhibit.

INTERVIEW FINDINGS

- ◆ All interviewees said that the exhibit was intended to make visitors aware of the activities available at the Big Cypress National Preserve and help visitors plan their trip.
- ◆ Most interviewees said the exhibit provided useful information about how to plan a visit to the Big Cypress National Preserve. Many interviewees indicated activities like hiking/walking, driving, and camping as of most interest to them. Visitors described the information about hunting as least useful since no one planned to do so on their trip; a couple people, however, were interested in learning about this information.
- ◆ All interviewees said the timeframes outlined were appropriate. Most interviewees said they planned on spending a half-day at the Preserve, although some were also interested in learning about activities available to them if they were to spend more time in the area.
- ◆ About one-half of interviewees said the information presented in the exhibit would be more useful as a brochure or suggested providing supplementary information in a brochure.
- ◆ A few interviewees had questions about the activities that could not be answered by the Trip Planner. Questions included how safe it is to kayak or canoe in the swamp, what they will see during the driving tours, and the level of difficulty of various walks or hikes.
- ◆ Without prompting, one interviewee commented positively on the information at the center of the wheel (e.g., “Don’t Forget!” section), although most did not have strong opinions (positive or negative) about the information.
- ◆ When asked about how to operate the wheel, one interviewee said he did not know that the wheel moved.

RECOMMENDATIONS

- ◆ Make the knobs on the wheel more prominent since about one-half of visitors did not initially use them to move the wheel.
- ◆ Make sure the information for each timeframe can stand alone and is not dependent on reading information for the other timeframes. For instance, the one day timeframe suggests that visitors “take both driving tours,” although visitors need to look at the half-day timeframe to know the names of the driving tours, length of each drive, and sites (e.g.,

“Drive Turner River/Wagonwheel/Birdon roads loops: 17 miles through open prairies, great birding along canals in dry season”).

- ◆ As discussed in a planning meeting the Preserve plans to include brochures below or nearby the exhibit. Findings confirm that this is important since many interviewees wanted information to take with them in the car, specifically regarding driving tours and walking/hiking trails. It may also be helpful to display the exhibit near an information desk since visitors may have specific questions about the activities described.

PRINCIPAL FINDINGS: PANTHER TRACKING

BACKGROUND INFORMATION

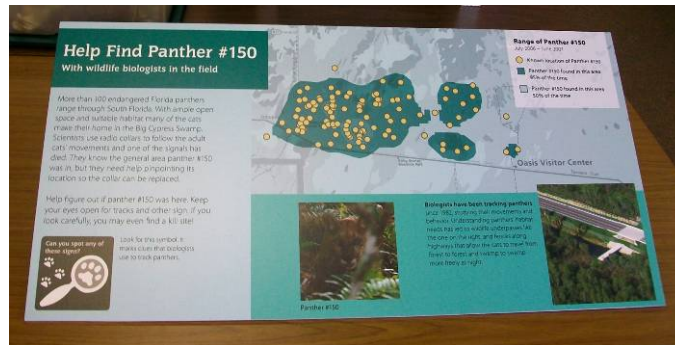


FIGURE 2. HELP FIND PANTHER #150 PANEL



FIGURE 3. SIGNS OF PASSAGE PANEL



FIGURE 4. BURIED EVIDENCE PANEL

KEY MESSAGES

This exhibit is intended to inform visitors about Florida's panthers. Specifically, the exhibit intends to convey that scientists study panthers to understand them better and make sure the environment continues to provide everything they need. The exhibit is also intended to show visitors panthers and signs of panthers since it is unlikely that they will see a live panther during their visit to the Preserve.

EVALUATION OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors' understanding of the exhibit messages, specifically:
 - ❖ Panthers are tracked in the park in order to study them in their natural environment; scientists want to understand panthers and their behaviors better as well as make sure that the Big Cypress Swamp Region continues to provide them everything they need;
 - ❖ While you probably won't see a panther on your visit, you may see signs of them, such tracks, scat, scrapes, and kill sites;
 - ❖ Kill sites are places where panthers eat and are typically located deep in the forest; kills sites also indicate that panthers are getting the food they need to survive.
- ◆ Gauge the extent to which the exhibit titles inform visitors' understandings of the exhibit;
- ◆ Identify any language or concepts that are challenging, misleading, or do not resonate (e.g., do they understand what a kill site is?);
- ◆ Identify strategies to address any problematic aspects of the exhibit.

EXHIBIT PROTOTYPE DESCRIPTION

Three panels constitute the exhibit—Help Find Panther #150: With Wildlife Investigators in the Field (see Figure 2); Signs of Passage: Tracks and Scat and Scrapes, Oh My! (see figure 3); Buried Evidence: A View of a Kill (see Figure 4). A panther print was displayed next to Signs of Passage, and a mock-up of a kill site was displayed next to Buried Evidence. The exhibit was altered after early observations and interviews, and the two iterations are explained in detail below.

EVALUATION FINDINGS: ITERATION I

The exhibit was initially displayed on two folding tables, which were pushed together to form a rectangle (see Figure 5). Each panel was displayed on one of three sides of the table.



FIGURE 5. PANTHER TRACKING PROTOTYPE -ITERATION I

VISITOR DEMOGRAPHICS

RK&A observed 24 groups of visitors using Panther Tracking and interviewed 12 visitors; all observations and interviews were uncued. Interviewees ranged in age 29 to 66, and more than one-half were female. Many interviewees were visiting the Preserve for the first time, and almost two-thirds were from the United States.

OBSERVATION FINDINGS

- ◆ Of the three exhibits tested, Panther Tracking was the most frequently stopped at exhibit; however many visitors did not stop at all three panels.
- ◆ Of the three panels, visitors stopped at Buried Evidence most and spent the greatest amount of time at this panel—frequently looking at the bone attached to the panel or the kill site before reading the text. Buried Evidence also prompted the most observable conversation; some visitors reacted audibly, specifically to the picture of the deer, saying “ick,” “cool,” or, simply, “look at this.”
- ◆ A few visitors quickly looked at Buried Evidence and Signs of Passage—and not at all at Help Find Panther #150—and did not seem to understand the main message of the exhibits; for instance, at Buried Evidence, one young adult visitor was observed saying, “An alligator did that” in regard to the picture of the deer, and at Signs of Passage, one woman proclaimed, “It is a bear claw” in regard to the panther print.

INTERVIEW FINDINGS

OVERALL FINDINGS

- ◆ Interviewees’ ideas about the main messages of the exhibit varied. Often interviewees talked about the main messages of specific panels, such as panthers hide their kill and sometimes return to it or scientists study panthers.
- ◆ Visitors understanding of exhibit messages were as follows:
 - ❖ A few interviewees said that scientists study panthers in the Preserve because they are “endangered” or need to be protected because there are so few. None of the interviewees mentioned that scientists study panthers to ensure that the environment provides everything they need to live.
 - ❖ While a few interviewees mentioned tracks, scat, scrapes, and kill sites, just one interviewee articulated that it is rare to see a panther, but tracks, scat, scrapes, and kill sites are signs that a panther is around.
 - ❖ Most interviewees talked about kill sites as places where panthers hide their kill to which they sometimes return. Interviewees were interested to learn the types of animals panthers eat, but no one mentioned that kill sites indicate that panthers are getting the food they need.
- ◆ When asked why they thought the Preserve wanted to convey the information presented in the exhibits, most interviewees said that the Preserve aimed to inform visitors that panthers live in the Preserve; some indicated that this was meant to raise conservation awareness, while others indicated it was meant to be general knowledge intended for appreciation. One-third of interviewees mistakenly believed the Preserve intended to warn visitors to be careful if they see panthers or signs of panthers.

- ◆ Many interviewees said they did not read the titles of each panel.
- ◆ A couple interviewees, both from Europe, suggested describing what panthers look like as well including more pictures of panthers.

FINDINGS SPECIFIC TO 'HELP FIND PANTHER #150'

- ◆ Most interviewees said the diagram was clear and explained that it shows where you are likely to see “panthers,” with one person explaining that it shows where “Panther #150” was most likely to be. A couple interviewees had trouble understanding the phrases “95 percent of the time” and “50 percent of the time” because it adds up to more than 100 percent, and a couple interviewees had trouble differentiating the colors and the meaning of the yellow dots.
- ◆ A few visitors had questions about Help Find Panther #150 including: “How do you know which one is panther #150?”; “How do the underpasses work and do panthers actually use them?”; “How do you track the panthers (i.e., tags, collars, etc.)?”

FINDINGS SPECIFIC TO 'SIGNS OF PASSAGE'

- ◆ When asked what was most interesting about the panel, most interviewees spoke vaguely, saying the signs of panthers or that you may not see panthers during the daytime.
- ◆ A couple interviewees said the term scat was new to them.
- ◆ A couple visitors had questions about Signs of Passage, including: “How big are panther tracks?;” “How big are panthers?;” “Where is the road in the picture of the “rare daytime panther sighting”?”

FINDINGS SPECIFIC TO 'BURIED EVIDENCE'

- ◆ The mock-up of the kill site, the bone attached to the panel, and the image of the deer were aspects of Buried Evidence that interviewees found most interesting.
- ◆ About two-thirds of interviewees said they were surprised by the information presented in the exhibit, especially by the fact that panthers hide their kill. A few others talked about the types of animals panthers eat, specifically an alligator, and a few mentioned the teeth marks in the displayed bone as interesting.
- ◆ A few interviewees appreciated that the exhibit incorporated objects like the kill site and the bone because it made the exhibit more accessible and feel “hands-on.”
- ◆ Most interviewees said the information, terminology, and images were appropriate, although one woman thought the image of the deer was too graphic.

EVALUATION FINDINGS: ITERATION 2

After noticing that interviewees talked about each panel separately—making no links between content in each panel—and that interviewees struggled to articulate the big ideas of the exhibit, the evaluator decided to clump the exhibits together in a pyramid so that all panels were visible at once (see Figure 6, next page). The evaluator placed Help Find Panther #150 at the top of the pyramid, Signs of Passage below and to left, and Buried Evidence below and to right.



FIGURE 6. PANTHER TRACKING PROTOTYPE ITERATION 2

VISITOR DEMOGRAPHICS

RK&A observed 14 groups of visitors using Panther Tracking and interviewed 11 visitors; most observations and interviews were uncued. Interviewees ranged in age 16 to 58, and more than one-half were female. Most interviewees were visiting the Preserve for the first time, and almost two-thirds of visitors were from the United States, with two visitor groups from Florida.

OBSERVATION FINDINGS

- ◆ Visitors appeared to stay longer at the exhibits in this arrangement as opposed to the initial display.
- ◆ The amount of conversation was about the same as that prompted by the initial display. However, while visitors talked most often at Buried Evidence in the initial display, visitors talked approximately equally about each of the three panels in Iteration 2.

INTERVIEW FINDINGS

OVERALL FINDINGS

- ◆ In contrast to initial findings, about one-half of interviewees said that the main message conveyed is that you may not see a panther although you will see signs of a panther such as tracks, scat, scrapes, and kill sites. Other responses varied, and as in the initial findings, were specific to certain panels.
- ◆ Visitors understanding of specific exhibit messages were as follows:
 - ❖ As in the initial findings, a few interviewees said that scientists study panthers in the Preserve because they are “endangered” or need to be protected because there are so few. None of the interviewees mentioned that scientists study panthers to ensure that the environment provides everything they need to live
 - ❖ In contrast with the initial findings, many interviewees mentioned tracks, scat, scrapes and kill sites. More than one-half of interviewees said that it is rare to see a panther, but tracks, scat, scrapes, and kill sites are signs that a panther is around, representing a marked increase in understanding as compared to the initial display.

- ❖ Most interviewees talked about kill sites as places where panthers hide their kill *and* noted that it is a sign of panthers—this was a substantial increase in understanding compared to the initial display. As in initial findings, no one mentioned the implication of kill sites: panthers are getting the food they need.
- ◆ When asked why they thought the Preserve wanted to convey the information presented in the exhibits, all interviewees said that the Preserve aimed to inform visitors that panthers live in the Preserve. Significantly, about one-half also mentioned that the Preserve intended to show visitors signs of panthers since it is unlikely that they would see a live panthers. Only a couple interviewees mistakenly thought the Preserve intended to warn visitors to be careful if they see panthers or signs of panthers (as compared to one-third interviewees who saw the initial display).
- ◆ Comparable with the initial findings, a few interviewees said they did not read the titles of each panel, and most said it did not help their understanding of the exhibits or could not provide examples of how it helped inform their understanding.
- ◆ As in the initial findings, a few interviewees suggested including more pictures of panthers. One such interviewee said it would help eradicate misconceptions about panthers, such as that they are black.

FINDINGS SPECIFIC TO 'HELP FIND PANTHER #150'

- ◆ Comparable with the initial findings, a few visitors had questions about Help Find Panther #150 including: “How do the underpasses work and do panthers actually use them?”; “How do you track the panthers (i.e., tags, collars, etc.)?”; “How many panthers are in the preserve?”; and “What threats are there to panthers?”
- ◆ As in the initial findings, most interviewees said the diagram was clear and explained that it shows where you were likely to see “panthers.” Some interviewees said they liked the diagram because it showed them where they were most likely to see a panther, and a couple interviewees asked whether the locations on the diagram were close by.

FINDINGS SPECIFIC TO 'SIGNS OF PASSAGE'

- ◆ As in the initial findings, most interviewees spoke vaguely about the panel, saying the signs of panthers or that you may not see them during the daytime.
- ◆ A couple visitors said the panel helped them see similarities between panthers and housecats, noting scrapes and rare daytime appearances.

FINDINGS SPECIFIC TO 'BURIED EVIDENCE'

- ◆ As in the initial findings, most interviewees talked about the information presented in the exhibit, frequently saying it shows that panthers hide their kill.
- ◆ Similar to the initial findings, most interviewees said the information, terminology, and images were appropriate. One interviewee did not understand the image of the deer; for example, she pointed at the deer’s stomach and said, “What is this?” Also, one interviewee did not understand the purpose of the mock-up of a kill site saying it didn’t add anything to the explanation in the label.

RECOMMENDATIONS

- ◆ Make more explicit connections between the three exhibits. Suggestions include either clumping the exhibits similar to the iteration, making the panels the same color, or making the titles of the exhibits more similar.
- ◆ Consider providing more general information about panthers, such as the number of panthers living in the preserve. Also, consider adding more images of panthers since the exhibit only presented two images of a panther.
- ◆ Consider adding more explicit and detailed information about how and why scientists study panthers since this message did not come across to visitors who were interviewed.
- ◆ In analysis, the evaluator noticed that some interviewees said that the Preserve wanted to express that visitors should be cautious if they encounter a panther. This message may have been rooted in the depiction of the killed deer and/or through the title of the exhibit Signs of Passage: Tracks and Scat and Scrapes, Oh My! Note that this was only noted in analysis, and thus, the evaluator was not able to further probe visitors.

PRINCIPAL FINDINGS: SCALING THE HEIGHTS

BACKGROUND INFORMATION



FIGURE 7. SCALING THE HEIGHTS PROTOTYPE – ITERATION I

KEY MESSAGES

This exhibit is intended to inform visitors about the Preserve’s unique ecosystems, which are separated by merely inches. The exhibit also intends to show visitors that water is the main factor that differentiates the ecosystems (e.g., always wet vs. wet more than six months of the year) and that scientists use information about the layers of ecosystems in order to monitor the environments’ health.

EVALUATION OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors’ understanding of the exhibit messages, specifically:
 - ❖ Layers of the ecosystem vary in just inches in Big Cypress whereas they vary in thousands of feet in the Rockies, and the diversity of ecosystems separated by very small differences in elevation is unique to the Big Cypress Swamp Region;
 - ❖ The primary difference between the ecosystems in the Big Cypress are the amount of water or flooding in each area, which is a normal, natural, and necessary phenomenon in the Big Cypress Swamp Region;
 - ❖ Understanding layers of an ecosystem is important to scientists who use this information to monitor the health of an ecosystem;
- ◆ Gauge the extent to which the exhibit titles inform visitors’ understandings of the exhibit;
- ◆ Determine whether visitors can accurately interpret the diagrams (heights/distances) presented for the mountains versus swamp;
- ◆ Identify any language or concepts that are challenging, misleading, or do not resonate;
- ◆ Identify strategies to address any problematic aspects of the exhibit.

EXHIBIT PROTOTYPE DESCRIPTION

The exhibit contains two panels. One panel introduces the exhibit and contains the title (EDX provided multiple titles to test), a few paragraphs about the ecosystems, and a scale of the Rocky Mountains; RK&A will refer to it as the introductory panel. The second panel depicts an elevation of the cypress swamp ecosystems; RK&A will refer to it as the cypress swamp panel. RK&A altered the exhibit after early observations and interviews, and the two iterations are explained in detail below.

EVALUATION FINDINGS: ITERATION I

The two panels were hung side by side on the wall as depicted in Figure 7. The introductory panel was displayed immediately to the left of the cypress swamp panel.

VISITOR DEMOGRAPHICS

RK&A observed 16 visitors using Scaling the Heights, and conducted interviewed 11 visitors; all observations and interviews were uncued. Interviewees ranged in age 33 to 58, and more than one-half were female. Most interviewees were visiting the Preserve for the first time, and one-half of interviewees were from the United States.

OBSERVATION FINDINGS

- ◆ Visitors stopped at Scaling the Heights more often than Trip Planner but less often than Panther Tracking.
- ◆ Almost two-thirds of visitors looked at the cypress swamp panel before looking at the introductory panel, and more than one-half looked at the cypress swamp panel longer than the introductory panel. A few only looked at the cypress swamp panel.
- ◆ A few visitors were observed pointing at the cypress swamp panel, verbally mentioning aspects such as the gator hole, water levels, and feet above sea level.

INTERVIEW FINDINGS

- ◆ All interviewees said the exhibit is intended to show visitors the different ecosystems of the cypress swamp.
- ◆ Visitors' understanding of the exhibit messages were as follows:
 - ❖ Two interviewees articulated that layers of the ecosystem vary in just inches in the Preserve—one after extensive probing. Neither said it was unique to the Big Cypress Swamp Region.
 - ❖ A couple interviewees noticed the different water levels in each ecosystem; however, no one said it was the primary difference between the ecosystems. Also, no one articulated negative connotations of the word “wet” or associated it with flooding¹ in any way. No one mentioned that scientists use information about ecosystems to monitor the health of an ecosystem.
- ◆ Most visitors said they liked the rendering of cypress swamp elevation, although some suggested adding images of animals from each ecosystem and some suggested adding a written description of the different ecosystems.

¹ The word “flooding” was not used in the exhibit.

- ◆ One-half of interviewees said they did not notice the comparison between the Rocky Mountains and the cypress swamp.
- ◆ When asked about the significance of the comparison between the Rocky Mountains and the cypress swamp, more than one-half of interviewees said that ecosystems at higher elevations are different than lower elevation. Two interviewees said it showed that the ecosystem in the cypress swamp varies in just inches. One interviewee, who was from Holland, did not understand the comparison because he was not familiar with the Rockies.
- ◆ No one said they had difficulties interpreting the diagram, although one interviewee indicated that there is a disconnect between the exhibits' title, "Inches Make a Difference", and the increments on the scale being in feet; he also said that feet indicate larger measurements.
- ◆ Visitors had various reactions to the titles of the exhibits:
 - ❖ A couple interviewees liked the phrase "inches make a difference" because it explains the main message although one interviewee interpreted it as explaining that ecosystems in low and high elevations are different.
 - ❖ A couple interviewees said "scaling the heights" indicated that ecosystems change at different elevations although they had no opinion of it, favorable or otherwise.

EVALUATION FINDINGS: ITERATION 2

After initial interviews and observation, the evaluator noticed that most visitors did not understand the comparison between the Rocky Mountains and the cypress swamp and how it shows that ecosystems in the cypress swamp change within just inches. Further, when prompted to consider the comparison between the Rocky Mountains and the cypress swamp, visitors tried to compare the scales saying things like, “the ecosystems are different at higher elevations than lower elevations,” which while true, does not address the uniqueness of the cypress swamp. Thus, RK&A folded the right half of the introductory panel so that the depiction of the Rocky Mountains was not visible, although the yellow text box describing the comparison remained (see Figure 8).



Figure 8. Scaling The Heights prototype – Iteration 2

VISITOR DEMOGRAPHICS

RK&A observed nine visitors using Scaling the Heights Iteration 2 and interviewed nine visitors; approximately one-half were cued. Interviewees ranged in age 24 to 47, and most were male. Most interviewees were visiting the Preserve for the first time, and most were from the United States.

OBSERVATION FINDINGS

- ◆ Similar to findings in Iteration 1, more than one-half of visitors spent more time looking at the cypress swamp panel than the introductory panel.

INTERVIEW FINDINGS

- ◆ As in the initial findings, all interviewees said the exhibit is intended to show visitors the different ecosystems of the cypress swamp.
- ◆ Visitors’ understanding of the exhibit messages were as follows:
 - ❖ More than one-half of interviewees articulated that layers of the ecosystem vary in just inches in the Preserve—demonstrating and increased understanding compared to Iteration 1. One interviewee said it was unique to the Big Cypress Swamp Region.

- ❖ Similar to the initial findings, one-half of interviewees noticed the different water levels in each ecosystem, and one interviewee said it differentiated the ecosystems. Again, no one articulated negative connotations of the word “wet” or associated it with flooding.
- ❖ No one mentioned that scientists use information about ecosystems to monitor the health of an ecosystem.
- ◆ As in the initial findings, most interviewees were most interested in learning about the different ecosystems, although when looking at the cypress swamp panel, a couple did not see the sixth ecosystem: the mangroves because of its placement on the elevation.
- ◆ In contrast to the initial findings, more interviewees said that the significance of the comparison of the Rocky Mountains and cypress swamp indicated that the ecosystems vary in inches in the cypress swamp as opposed to in the Rocky Mountains. As a reminder, in this iteration the graphic of the Rocky Mountains was hidden but the text remained. A couple interviewees also said the comparison indicated that ecosystems vary at different elevations.
- ◆ Similar to the initial findings, all interviewees suggested adding animals or written descriptions of the ecosystems to the cypress swamp panel. A couple interviewees said the panel looked “plain.”
- ◆ No interviewees had strong opinions of the titles, which included “Scaling the Heights” and “Inches Make a Difference”; interviewees felt that they were all adequate.

RECOMMENDATIONS

- ◆ Consider eliminating the elevation graphic that depicts the Rockies as it seemed to distract visitors. However, keep the written comparison between the Rocky Mountains and cypress swamp. Nevertheless, consider that foreign tourists may not be familiar with the Rocky Mountains.
- ◆ Consider integrating the text in the yellow text box into the green text box since some people only read one of the text boxes.
- ◆ Consider adding animals and more detailed graphic depictions of the environments on the Cypress Swamp elevation.
- ◆ Consider changing “0 feet” to “Sea Level – 0 feet”
- ◆ Consider moving the label “Cypress Swamp” to the upper left corner of the cypress swamp panel so that it is immediately visible.
- ◆ Consider making explicit references to how scientists use information about ecosystems because no visitors detected that message.
- ◆ Consider moving the mangrove ecosystem to a more prominent location, in line with the other ecosystems.

APPENDIX

TRIP PLANNER

OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors' understanding of the exhibit messages (e.g., what visitors can do at Big Cypress Swamp Region, time needed to do activities);
- ◆ Explore visitors' perceptions of the usefulness of the information specifically in regard to time, categories, and specificity of information (e.g., will they use the information to plan their visit?; are there different categories of activities they would prefer/expect?);
- ◆ Identify any language and concepts that are challenging, misleading, or do not resonate;
- ◆ Identify whether the concept of the wheel is challenging;
- ◆ Identify strategies to address any problematic aspects of the exhibit.

INTERVIEW GUIDE

- 1) What are your thoughts about the exhibit?
 - a) What did you find most appealing about the exhibit?
[Can you tell me more about that?]
 - b) What did you find least appealing?
[Can you tell me more about that?]
- 2) What aspect of the exhibit was unclear or challenging?
[Probe about anything observed, such as visitor seemingly struggling or confused while using exhibit.]
 - a) What, if anything, was difficult about using the wheel?
[Why do you think that is?]
- 3) Can you tell me what you think the purpose of the exhibit is?
 - a) What about the wheel makes you think that is its purpose?
[If not mentioned, probe about visiting the region]
- 4) As a visitor to Big Cypress Swamp Region, what is most useful about the information presented here? Why?
 - a) What is least useful about the information presented?
 - b) What is your opinion of the activities described?
[Are they clear/confusing/interesting/relevant?]
 - c) What is your opinion of the time frames provided?
[Do they make sense to your visit/for your purposes?]
[Can you give me a specific example?]

5) Is there other information that would be useful to you or that you would prefer?

[Anything else?]

(Record gender, age and previous visits to the Big Cypress National Preserve)

PANTHER TRACKING

OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors' understanding of the exhibit messages, specifically:
- ◆ Panthers are tracked in the park in order to study them in their natural environment; scientists want to understand panthers and their behaviors better as well as make sure that the Big Cypress Swamp Region continues to provide them everything they need;
 - ❖ While you probably won't see a panther on your visit, you may see signs of them, such tracks, scat, scrapes, and kill sites;
 - ❖ Kill sites are places where panthers eat and are typically deep in the forest; kills sites also indicate that panthers are getting the food they need to survive.
- ◆ Gauge the extent to which the exhibit titles inform visitors' understandings of the exhibit;
- ◆ Identify any language or concepts that are challenging, misleading, or do not resonate (e.g., do they understand what a kill site is?);
- ◆ Identify strategies to address any problematic aspects of the exhibit.

INTERVIEW GUIDE

- 1) What are your thoughts about the exhibit?
 - a) What did you find most interesting about the exhibit?
[Can you tell me more about that?]
 - b) What did you find least interesting?
[Can you tell me more about that?]
- 2) What aspects of the exhibit were most unclear or challenging?
[Probe for anything observed, if the visitor seemed to struggle or be confused]
 - a) What is your opinion of the terminology/language used?
[Do these terms make sense to you/would something else make more sense?]
[Can you tell me more about that?]
- 3) Can you tell me what you think are the main messages of the exhibit overall?
 - a) What about the exhibit makes you say that is the main message?
 - b) Why do you think the preserve thinks it's important to convey that message to visitors?
[If not mentioned, probe about visiting the main messages listed in the objectives]
- 4) [If not talked about yet] Can you tell me what you think are the main messages of this aspect of the exhibit (point to kill site)?
 - a) What about that area makes you say that is the main message?
 - b) Why do you think the preserve wants visitors to know that?

5) In what ways do the headings of each exhibit relate to the main messages that you mentioned?

a) Do you think they are descriptive enough?

[Can you give me a specific example?]

b) Do you have suggestions for more appropriate titles? What are they?

c) How well do you think the images support the messages and titles?

[Can you tell me more]

6) How, if at all, is the information conveyed in this exhibit interesting to you as a visitor to Big Cypress Swamp Region?

[Can you give me a specific example?]

[Anything else?]

(Record gender, age and previous visits to the Big Cypress National Preserve)

SCALING THE HEIGHTS

OBJECTIVES

- ◆ Gauge the extent to which visitors are interested in and engaged with the exhibit;
- ◆ Gauge visitors' understanding of the exhibit messages, specifically:
 - ❖ Layers of the ecosystem vary in just inches in Big Cypress whereas they vary in thousands of feet in the Rockies, and the diversity of ecosystems separated by very small differences in elevation is unique to the Big Cypress Swamp Region;
 - ❖ The primary difference between the ecosystems in the Big Cypress are the amount of water or flooding in each area, which is a normal, natural, and necessary phenomenon in the Big Cypress Swamp Region;
 - ❖ Understanding layers of an ecosystem is important to scientists who use this information to monitor the health of an ecosystem;
- ◆ Gauge the extent to which the exhibit titles inform visitors' understandings of the exhibit;
- ◆ Determine whether visitors can accurately interpret the diagrams (heights/distances) presented for the mountains versus swamp;
- ◆ Identify any language or concepts that are challenging, misleading, or do not resonate;
- ◆ Identify strategies to address any problematic aspects of the exhibit.

INTERVIEW GUIDE

- 1) What are your thoughts about the exhibit?
 - a) What did you find most interesting about the exhibit?
[Can you tell me more about that?]
 - b) What did you find least interesting?
[Can you tell me more about that?]
- 2) What aspects of the exhibit were most unclear or challenging?
[Probe for anything observed, if the visitor seemed to struggle or be confused]
 - a) What is your opinion of the terminology/language used?
[Do these terms make sense to you/would something else make more sense?]
[Can you tell me more about that?]
 - b) What, if any, challenges did you encounter with the diagrams?
[Probe specifically about interpreting heights and images]
 - c) What are your thoughts about the comparison between Big Cypress Swamp Region and the Rockies?
[Are any parts of that unclear?]
[Can you talk about that more?]

3) Can you tell me what you think are the main messages of the exhibit?

a) What about the exhibit makes you say that?

[Probe for specific messages as necessary, for instance:

Can you tell me the significance of these two scales? What are they showing you? What is the difference between the two? What is the significance of the difference between the two?

What does water have to do with this scale [probe about flooding if it is used on the panel?] What makes you say that?

What is the significance of this scale for the animals of Big Cypress Preserve? What makes you say that?

Why is all this important to know? What do you think scientists do with this information?]

b) Why do you think the preserve wants visitors to know that?

4) In what ways do the titles of each exhibit relate to the main messages that you mentioned?

a) Do you think they are descriptive enough?

[Can you give me a specific example?]

b) Do you have suggestions for more appropriate titles? What are they?

c) What do you think of the title _____? Do you think this title better or worse than the current title?

[Why do you think that?]

5) How, if at all, is the information conveyed in this exhibit interesting to you as a visitor to Big Cypress Swamp Region?

[Can you give me a specific example?]

(Record gender, age and previous visits to the Big Cypress National Preserve)