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Bilingual Multimedia in Exhibitions

Beth Redmond-Jones

The San Diego Natural History Museum (theNAT) has an institutional commitment to present all permanent exhibition text bilingually (English/Spanish). With the development of *Coast to Cactus in Southern California* (fig. 1),[1] which opened in January 2015, we wanted to take a further step—to explore how bilingual visitors engage with multimedia in exhibitions.

Background: The BERI Report and Its Findings

In 2013, theNAT was one of the case study sites for a multi-site evaluation study—the Bilingual Exhibit Research Initiative (BERI). This three-year, National Science Foundation-funded projectwas designed,[2] according to principle investigators Steve Yalowitz, Cecilia Garibay, Nan Renner, and Carlos Plaza, to

> better understand current practices in bilingual exhibitions and Spanish-speaking visitors' uses and perceptions of bilingual exhibitions.... While a handful of evaluation studies with bilingual and Spanish-speaking audiences focused on single institutions or exhibitions, BERI explored current practices and visitor engagements across multiple institutions, revealing patterns that exist in a variety of ISE [Informal Science Education] contexts.[3]

1   This exhibition was awarded the Overall Excellence Award from the American Alliance of Museums 28th Annual Excellence in Exhibition Competition in 2016; the 2016 Sustainability Excellence Award from the American Alliance of Museums professional network, PIC Green in the "Exhibits, Large Museum" category; and was a winner of the 2015 Excellence in Exhibition Label Writing Competition for "Wildfire in the Chaparral–Chapter 3."
2   National Science Foundation Grant DRL#1265662, previously listed as DRL#1010666.
3   Steven Yalowitz, Cecilia Garibay, Nan Renner, and Carlos Plaza, *Bilingual Exhibit Research Initiative* (*BERI*) *Report*, http://www.informalscience.org/sites/default/files/2013-10-01_BERI_Research_report_Final_Sep_2013.pdf, September 2013, 4.
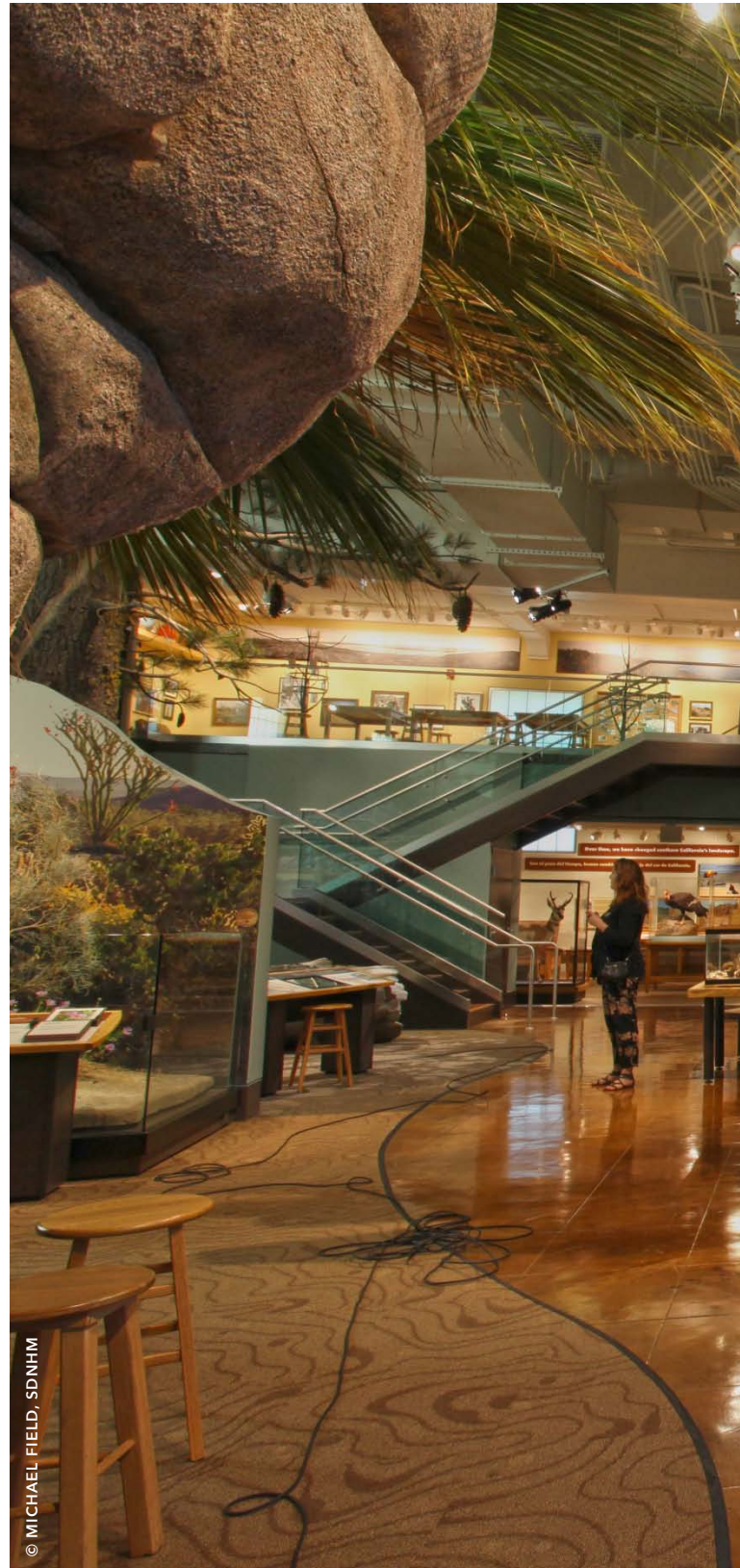

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The study's findings were published in a September 2013 report titled *Bilingual Exhibit Research Initiative: Institutional and Intergenerational Experiences with Bilingual Exhibitions*. The main findings of the BERI report, in regards to bilingual interpretive panels, were as follows:

1 **Code-switching** The large majority of groups used both Spanish and English during their visit, and the action of switching from one language to another was common in the exhibition. Groups changed between the languages often, even sometimes within the same sentence. In post-visit interviews, bilingual groups said this was a common occurrence for them, especially when they came across a word or phrase in one language that was more easily said or understood in the other language. The groups said switching was relatively effortless and natural for them.

2 **Bilingual groups' reading behavior** Some patterns related to reading behavior hold true across both English-only and bilingual groups; specifically, adults read labels more than children. However, bilingual groups also exhibited unique behaviors. Adults were more likely to read in Spanish, while children were more likely to read in English. Individuals also modified the language they spoke depending on the language abilities of who they were at an exhibit with.

3 **Access to content** Among the affordances of English/Spanish bilingual interpretation, adults most commonly valued the ability to access content in their preferred language. This was especially true for Spanish-dominant or Spanish-only adults, who said it was easier to learn in their own language or if there were two languages to read. Many used both languages, and some expressed how they compared words between the two languages.

4 **Facilitation** The main reason access to content was important to the adults was that it allowed them to fulfill their role as facilitating the experience for the children, since they could read instructions, share information, especially when the children asked what something was or how it worked. This was made even more important given that the children were much less likely to read the labels, either in English or Spanish, than adults.

5 **Emotional reactions** The presence of bilingual interpretation had a profound emotional effect on the groups [the people tested], who do not necessarily expect museums and other ISE institutions to have content bilingually. They said this made them feel more comfortable, enjoy the visit more, and feel more valued by the institution; they often said this changed how they felt about the institution.

6 **Learning a language** With bilingual text, quite a few Spanish-dominant adults said they tried the English first, then the Spanish to see if they understood it properly; in this manner they were improving their English. Adults also said it was important for their kids to learn or maintain Spanish, and thought having Spanish text helped them do that. They especially valued the ability of their children being bilingual, which was seen as a big advantage.

7 **Connection to culture** Groups also saw having bilingual text as an opportunity to connect to one's culture, particularly through language. It was important to adults with fully bilingual, or English-dominant, that their children be exposed to and continued to speak Spanish, and a museum with bilingual content was a place they could encourage that.[4]

These findings imply that for exhibition text, having both languages available supports bilingual visitors in multiple capacities.

4 Steven Yalowitz, Cecilia Garibay, Nan Renner, and Carlos Plaza, *Bilingual Exhibit Research Initiative (BERI) Report*, http://www.informalscience.org/sites/default/files/2013-10-01_BERI_Research_report_Final_Sep_2013.pdf, September 2013, 6-7.
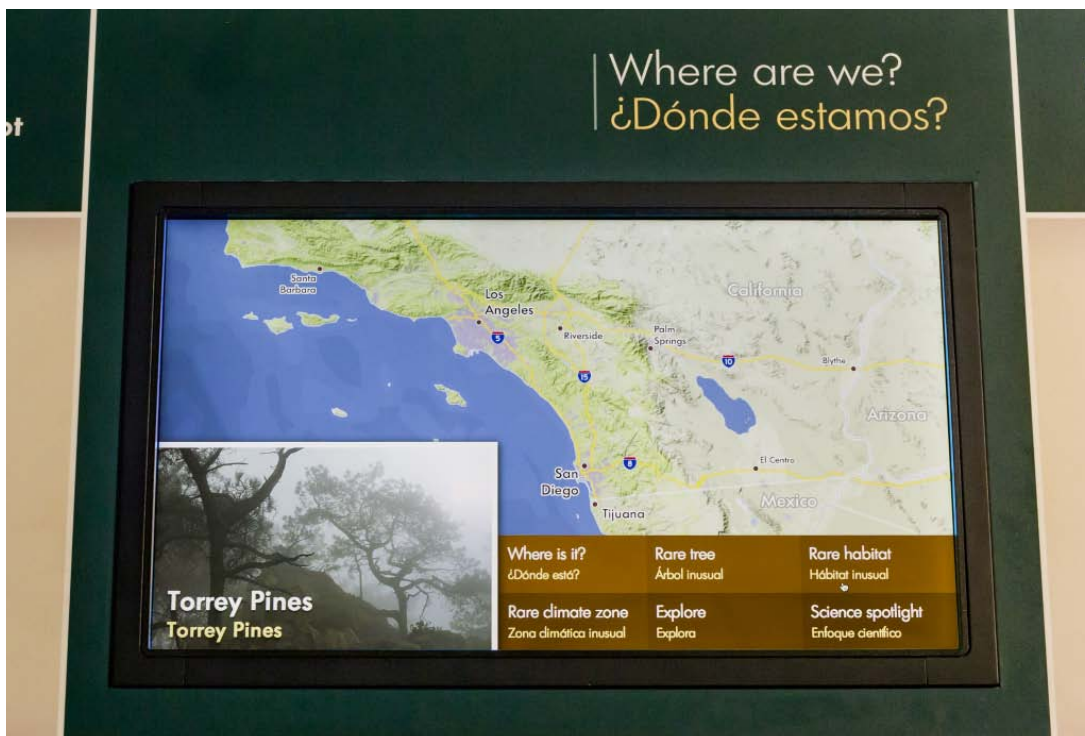
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Using the Findings of the BERI Report to Take the Next Step: Multimedia

Because of our participation in the BERI study, we felt we had a good baseline understanding of how bilingual visitors engage with our labeling. With *Coast to Cactus*, we wanted to take the next step—to explore how bilingual visitors would most effectively engage with our multimedia. We decided to create, and test, three approaches in three discreet areas of the exhibition:

- *side-by-side bilingual text*—our current approach for text panels—for selected touchscreens about habitats;
- *toggle* presentation, in which the visitor selects his or her preferred language, either English or Spanish, for the screen display in an art interactive; and
- *Spanglish* presentation—a fluid switching between English and Spanish—for a story theater.

After the exhibition's opening, Randi Korn & Associates conducted summative evaluation that included timing-and-tracking observations, exit interviews in both English and Spanish (per

visitor preference), and focused observations with short-answer interviews at a number of specific exhibit components.[5]

Our Results

Side-by-side presentation

Coast to Cactus in Southern California is structured as a virtual, self-directed walk through southern California's various habitats. Each habitat is presented in a different season of the year, supporting messaging about habitat diversity and its relationship to seasonal conditions: summer's drought and how plants and animals are adapted for water scarcity; the chance of wildfire in fall; the surprise, to many, of snow in a southern California winter; the explosion of color when the desert blooms in spring.

In each habitat, a "Where Are We?/¿Dónde Estamos?" touchscreen interactive allows access to a deeper level of information about an environment (fig. 2). Visitors can map the location

5   Randi Korn, *Summative Evaluation: Coast to Cactus in Southern California* Exhibition, http://www.informalscience.org/summative-evaluation-coast-cactus-southern-california-exhibition, 2015.

figs. 3 & 4.

Visitors have to toggle between English and Spanish when engaging with the A. R. Valentien painting interactive.
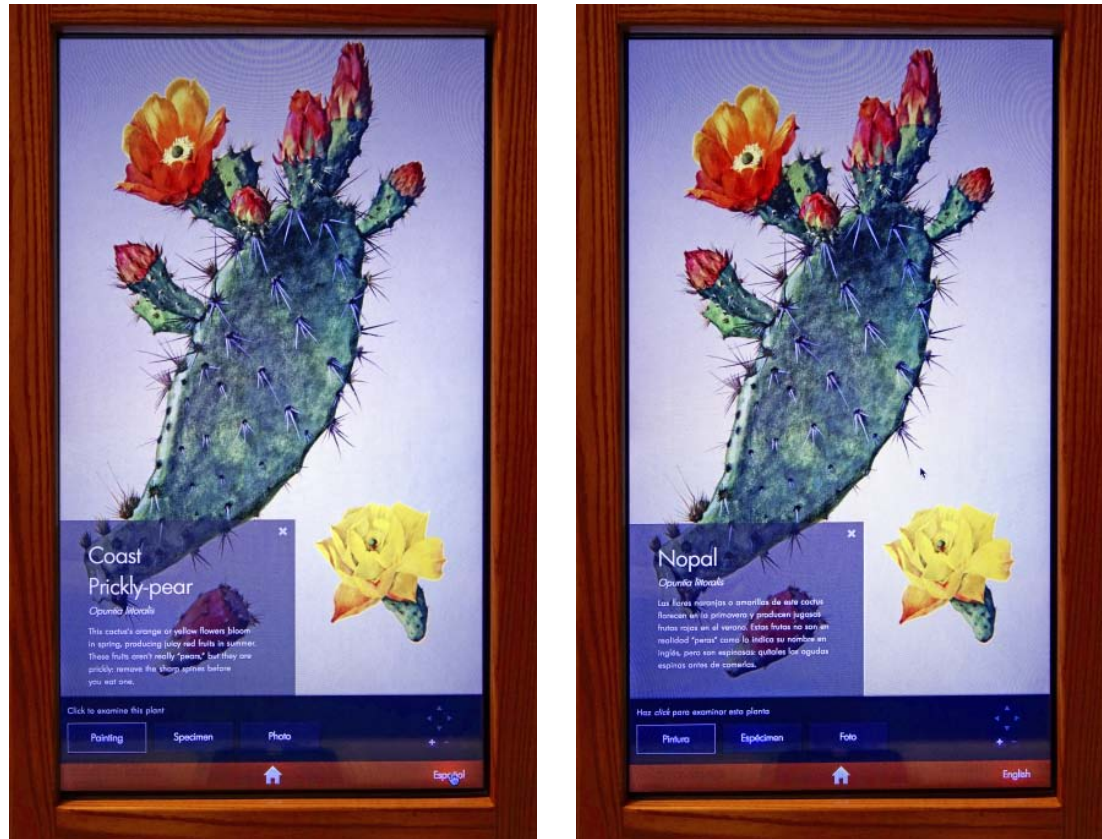
of the habitat recreated in front of them; they can also locate real places where they can visit the same type of habitat. English and Spanish text is presented together (either side by side or top-bottom) so visitors can utilize the language that is best for them.

The summative evaluation report indicated that

> all interviewees responded positively to providing bilingual text, including those who only spoke English. Of the Spanish-speaking visitors, all responded positively to the bilingual text overall. All prefer side-by-side text because it is "good for everyone" and "quicker that way." One woman was very happy about the side-by-side text because she was interested to see the English translation of words she knows in Spanish, and said she learned that "*estuario*" is "estuary" in English. One woman was also excited to see which language her girl would read the text in: "My daughter is bilingual. We speak Spanish at home and she learns English at school, so I never know if she'll start reading the English or Spanish text."[6]

Toggle presentation

Among the most loved pieces in the museum's collections are watercolors by artist A. R. Valentien, who paints California's extraordinary botanical diversity. In *Coast to Cactus*—alongside a display of his paintings—we mounted a monitor, framed as artwork. It features digitized images of Valentien's work, drawn from the more than 1,000 pieces in our collections. By using a trackball and clicking on selections, visitors can compare the artwork to an herbarium sheet of the same plant or see a living version of that plant *in situ*. For this component, visitors can select either English or Spanish (figs. 3 & 4). They can change their language of choice by selecting the other language, which appears as text in the lower right hand corner of the screen.

6   Korn, *Summative Evaluation*, 25.

The summative evaluation report noted that

one-half of the interviewed visitors were Spanish speakers, but all used the English text. In fact, some visitors did not realize there was a Spanish language option, including three out of five of the Spanish-speaking users. These visitors indicated that had they known, they would have chosen Spanish. They suggested that there needs to be a more prominent button to switch the language to Spanish. By comparison, two out of five Spanish-speakers realized the option, but chose to use English—in one case, to improve her English and in another case because she could not get her son (who was operating the mouse) to switch languages.[7]

Spanglish presentation

The "Desert at Night" story theater uses a combination of fabricated habitat, projected video and still imagery, animation, multi-directional sound, spotlighting of mounted taxidermy,

7   Ibid., 27.

mechanical visual effects, and a script written in "Spanglish" (the seamless dialogue flow between English and Spanish, often within the same sentence) to transport visitors to the nighttime desert (fig. 5). This seven-and-a-half-minute presentation can be viewed with or without Spanglish captions, and is designed to increase awareness of the animals that live in the desert and inspire interest in exploring the desert.

The results of the summative evaluation showed that

most visitors had positive reactions to hearing Spanglish in the theater. Spanish-speakers from the area were highly complimentary of the narration. For instance, one woman said "we are living this." A couple of Spanish-speaking visitors appreciated that the presentation represented the diversity of the area. For instance, one man perceived the family as Mexican because of the Spanglish and valued seeing this representation. Of visitors who did not speak Spanish, most said the narration did not impede their experience
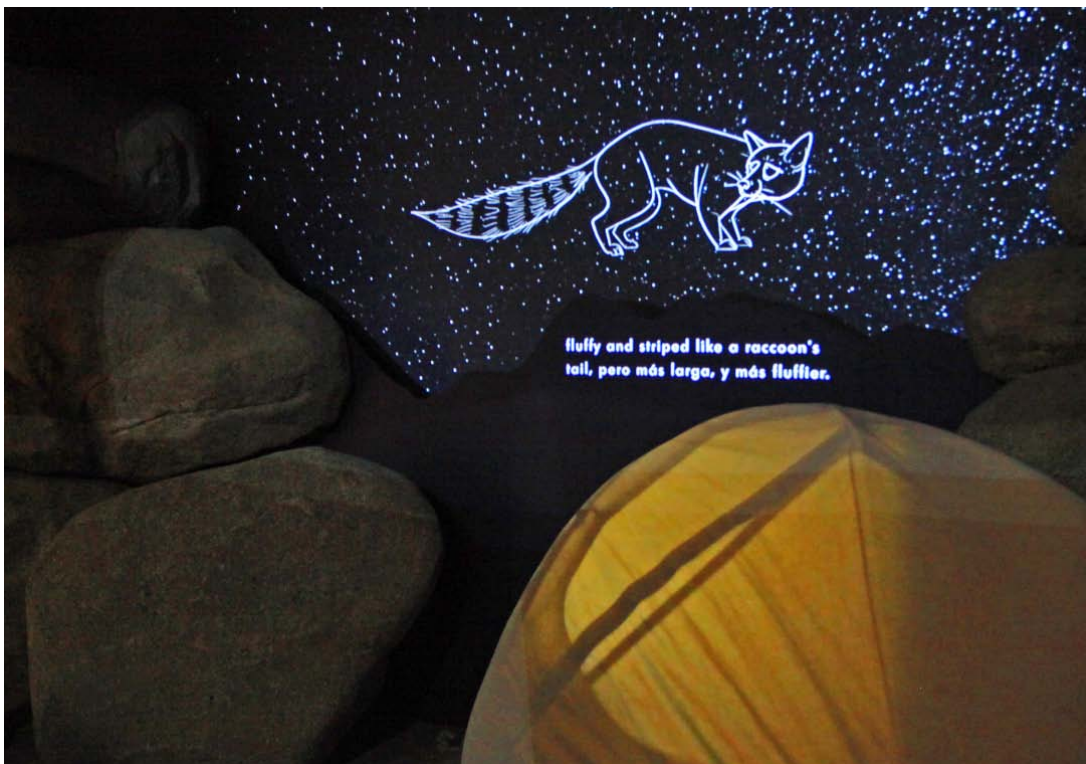
fluffy and striped like a raccoon's tail, pero más larga, y más fluffier.

fig. 5.

The "Desert at Night" story theater is presented in Spanglish, the seamless dialogue that transitions back and forth between Spanish and English.

and enjoyment, noting that words were repeated in both languages and there were supporting visuals. In fact, some liked the opportunity to practice Spanish, and a few were observed repeating the words aloud in Spanish during the presentation. Only one visitor group was distracted by the Spanglish; they watched the video with captions and said it may have been less distracting without captions or that English audio with Spanish subtitles might be better.[8]

Our desire to create a story theater that was representative of our community was confirmed by a 40-year-old woman who summed it up perfectly—"I thought the Spanglish was great! That's how I speak with my son! It's a real thing that's happening, because we are at the border. My husband and I are Mexican, but he [points to her son] is American. We are living this."[9]

Conclusion

The BERI study had cited evidence that when two languages are available in labels, Spanish-speaking visitors do not simply choose one—they switch back and forth between both. It demonstrated that making both languages available simultaneously provides more than just access to content—it allows Spanish-speaking visitors to socialize and facilitate within a social group that may include speakers with differing levels of English proficiency.

The takeaways we learned from the results of the *Coast to Cactus in Southern California* summative evaluation are as follows:

1 When creating multimedia, two languages should be made available side by side as Spanish-speakers will switch back and forth, just as they do with exhibit labels.

2 Providing two languages at the same time forces the exhibit team to be concise in the information they are presenting.

8   Korn, *Summative Evaluation*, 28.
9   Ibid.

3 Bilingual (Spanish and English) text should be equal size for both exhibit labels and multimedia.

4 If your museum is a bilingual institution, showing only one language at a time is not preferred by visitors.

5 If your museum is in a community where Spanglish is spoken, creating story theaters in Spanglish is a way to reflect and embrace the community. It makes visitors feel represented in, and a part of, your institution. It is not a tool for every institution.

6 For Spanglish story theaters to be successful,
   a. there needs to be repetition between what is said in English, then what is said in Spanish, and visa versa; and
   b. there must be visual and audio cues, such as a taxidermied specimen or the sound of an animal, to support comprehension of the story.

As theNAT's exhibit team moves forward with creating new exhibition experiences, we are utilizing these takeaways by creating multimedia with side-by-side dual languages and implementing Spanglish in story theaters since both of these approaches are successful and representative engagement of our Spanish-speaking audience. ▮

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Ed. note: To learn about bilingual labels at theNAT, see "Beyond Translation" in *Exhibition*'s spring 2016 issue, *The Power of Words*.