

Monterey Bay Aquarium Seafood Watch Cafe Evaluation Study



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Introduction

In 2009, the Monterey Bay Aquarium began investigating new ways to interpret its Seafood Watch program. This nationwide conservation program strives to educate consumers about the importance of buying sustainable seafood. As part of the program, the Aquarium and its partners distribute a printed pocket guide that lists the types of seafood consumers should buy and the types they should avoid. (Note: For more information about the program or the pocket guide, visit www.seafoodwatch.org.)

Over the years, several zoos, aquariums and museums that partner with the Aquarium had expressed interest in displaying an exhibit to encourage more of their visitors to use the pocket guide. In response, the Aquarium created the Seafood Watch Cafe—a portable interactive video kiosk that could be installed in a variety of public settings. The kiosk, which resembles a small diner, is based on a larger, permanent exhibit, called the Real-Cost Cafe, which opened at the Aquarium in 2006. The exhibit's main message is that some seafood choices have hidden environmental costs, but by using the pocket guide, consumers can make responsible and informed choices that have a positive impact on the oceans.

To communicate this message, the kiosk features humorous videos of a chef who describes the pros and cons of eating various types of seafood (Appendix A). A touch screen designed as the cafe's menu allows visitors to select the types of seafood they're interested in learning about (Appendix B). Although most of the content is presented in English, the kiosk also features a Spanish version of the menu (Appendix C) and Spanish subtitles that translate the chef's narration. English and Spanish versions of the pocket guide are also available for visitors to take home with them.

To evaluate the effectiveness, use and appeal of the kiosk, as well as visitors' comprehension of the main message, researchers evaluated the exhibit with English- and Spanish-speaking visitors during two separate phases of the design process. The first phase involved conducting a formative evaluation study of a near-finished version of the kiosk while it was temporarily installed at the Aquarium. The purpose of this study was to see how visitors interacted with the kiosk and if further refinements were needed before the Aquarium distributed the exhibit to its partners.

The second phase involved conducting a summative evaluation study of the finished kiosk after it was permanently installed at the California Science Center in Los Angeles. The purpose of this study was to see how visitors to a non-Aquarium venue would respond to the kiosk. In particular, Aquarium staff members were interested in seeing how the kiosk would perform in an urban museum that attracts a sizeable proportion of Spanish-speaking visitors. The staff felt the Science Center's audience would be more representative of future kiosk users than the Aquarium's audience, since plans called for installing the kiosk in cities with large populations of Hispanic residents, such as New York and Washington DC.

Phase 1: Formative Evaluation at the Monterey Bay Aquarium

Purpose

During December 2009, a near-final version of the Seafood Watch Cafe was installed and evaluated at the Aquarium. The purpose of the formative evaluation study was to assess the effectiveness of the kiosk so Aquarium staff members could refine the design of the touch screen based on how visitors interacted with the kiosk. In particular, staff members were interested in seeing how thoroughly visitors used the kiosk, whether they encountered any problems operating it, whether they found the videos of the chef humorous and what they took away from their experience. (Specific research questions are included in the “Results” section below.)

Methods

The study took place over three weeks while the kiosk was temporarily installed in a busy corridor next to one of the Aquarium’s gift shops. This location provided an opportunity to test how well the kiosk would attract and hold visitors’ attention under the noisy, crowded conditions found in many public spaces. The timing of the study also coincided with the Aquarium’s annual Community Open House, which attracts a larger proportion of Hispanic visitors than would normally be present at the Aquarium. Scheduling the study around this event allowed the researchers to more readily gather information from Spanish-speaking visitors.

During the first part of the study, data collectors recruited a random sample of visitors to use the kiosk and provide feedback on it. (Note: Students and chaperones participating in school programs were excluded from the study.) Once a group agreed to participate, data collectors recorded the behaviors of both children and adults in that group while they used the exhibit. Afterward, the data collectors invited one adult from each group to participate in a brief interview. Visitors had the choice of completing the interview in either English or Spanish.

During the second part of the study, data collectors unobtrusively observed a random sample of visitors using the exhibit and recorded the behaviors of both children and adults. These visitors were not aware they were being observed and were not approached for a follow-up interview.

Results

What did visitors think the kiosk was about?

When visitors were asked how they would describe the kiosk to another visitor, the majority of them (77%) said it was about some aspect of buying, ordering or choosing seafood in an environmentally friendly, responsible or sustainable way; a few in this group (7%) thought the purpose of the kiosk was to present information on specific types of seafood. In contrast, other visitors (19%) thought the purpose of the kiosk was to present information about specific fishing practices (Table 1).

Table 1. What Aquarium visitors thought the kiosk was about

Note: These responses are solely from visitors who cited at least part of the main message.

	Frequency	Percent
How to buy/order/choose seafood in a sustainable/responsible/environmentally friendly way	120	77%
General consumption of seafood in sustainable way	110	70%
Don't eat shark	3	2%
Be careful when choosing/eating canned tuna	2	1%
Eat catfish	2	1%
Restrictions on eating bass	1	1%
Eat farmed tilapia	1	1%
Don't eat farmed salmon	1	1%
Sustainable/less environmentally impactful fishing practices	29	19%
Information about sustainable/less environmentally impactful fishing practices	15	10%
Problems with bycatch, especially from tuna fisheries	7	4%
Information about overfishing and dwindling fish populations	4	3%
Information on farmed fish	2	1%
Aquatic contamination from farmed shrimp	1	1%
Verbal/visual presentation that expands on the Seafood Watch pocket guide	3	2%
General information about the conservation of ocean life	4	3%
Total responses	156	100%

Did visitors understand the kiosk's main message? Did their level of understanding relate to the number of videos they watched?

The majority of visitors (72%) were able to describe at least part of the main message—34% recalled details of the main message, while 38% recalled part of the main message (Table 2). Visitors who watched two or more videos were more likely to cite at least part of the main message than visitors who watched fewer videos.

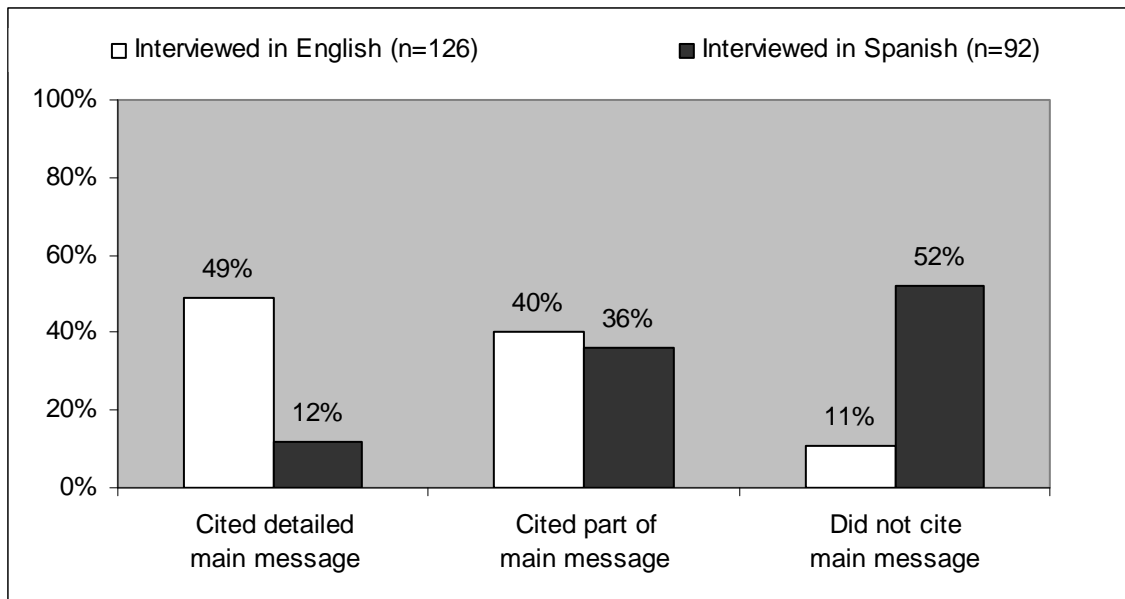
Table 2. Aquarium visitors' ability to cite the main message based on their viewing behavior

Note: There were statistically significant differences between visitors based on the number of videos they watched.

Level of Comprehension	Watched One Video (n=70)	Watched Two or More Videos (n=148)
Cited detailed main message	21%	39%
Cited part of main message	34%	40%
Did not cite main message	44%	21%

Figure 1. Aquarium visitors' ability to cite the main message based on the language they were interviewed in

Note: There were statistically significant differences between visitors who were interviewed in English and visitors who were interviewed in Spanish.



How many videos did visitors watch? Which videos were the most popular?

In general, visitors watched a median of two videos. Adult-only groups watched just as many videos as did groups with children. Visitors who were unobtrusively observed were more likely to watch just one video compared with visitors who were recruited for the study and knew they were being observed.

The videos about canned tuna and tilapia were the most popular among all visitors, including those who were interviewed for the study as well as those who were unobtrusively observed. In contrast, the videos about farmed shellfish, orange roughy and grouper were watched by the fewest number of visitors (Table 3).

Did visitors view the videos in their entirety—or did they only watch parts of them?

Almost half of unobtrusively observed visitors (46%) left the kiosk before the last video they were watching had ended; about two-thirds (63%) of these visitors watched only one video and left while this first video was playing. Overall, about a quarter of all unobtrusively observed visitors (24%) left while the first video was playing. However, no particular video emerged as the one from which visitors were most likely to walk away.

Did visitors laugh while watching the videos? If so, which videos did they laugh at?

Only 12% of visitors who were unobtrusively observed laughed while watching the videos compared with 44% of visitors who were interviewed. Of those visitors who were unobtrusively observed, the largest proportions were observed laughing during the videos about Chilean seabass (20%) and sardines (18%) (Table 4).

Did using humor help to communicate the main message?

When visitors were asked if they thought the topic of declining fisheries was too serious to be interpreted with humor:

- 87% said humor was appropriate to use when interpreting this topic (although 7% of these visitors thought the kiosk was intended for children, and 2% didn't find this exhibit particularly funny);
- 9% didn't think using humor to interpret this topic was appropriate;
- 3% were uncertain.

When visitors who thought the use of humor was appropriate were asked to identify what they found funny:

- 82% cited the chef's humorous use of props, accents, costumes or the way he presented the information;
- 10% cited elements of the kiosk's design or content, such as the appearance of the cafe;
- 8% weren't specific (e.g., "I liked all of it.").

Table 3. Proportions of Aquarium visitors who watched specific videos¹

Note: Statistically significant differences are indicated in bold type.

Video Title	Unobtrusive Observation (n=142)	Observation/Interview (n=218)
Introduction	9% (n=44)	18% (n=218)
Canned tuna	20% (n=20)	27% (n=34)
Tilapia	18% (n=17)	21% (n=33)
Catfish	13% (n=16)	22% (n=23)
Shark	9% (n=45)	15% (n=99)
Farmed salmon	7% (n=27)	15% (n=39)
Chilean seabass	7% (n=14)	10% (n=10)
Farmed shrimp	5% (n=18)	20% (n=20)
Bluefin tuna	0% (n=21)	44% (n=46)
Monkfish	0% (n=21)	40% (n=50)
Sardines	0% (n=18)	30% (n=47)
Striped bass	0% (n=13)	31% (n=16)
Grouper	0% (n=12)	29% (n=17)
Farmed shellfish	0% (n=19)	15% (n=27)
Orange roughy	0% (n=27)	10% (n=74)

¹ All visitors who were interviewed were supposed to have watched the introductory video first. However, due to technical problems with the kiosk during some periods of data collection, some visitors may not have seen the introductory video.

Table 4. Proportions of Aquarium visitors who laughed during specific videos

Note: Statistically significant differences are indicated in bold type.

Video Title	Unobtrusive Observation	Observation/Interview
Introduction	9% (<i>n</i> =44)	18% (<i>n</i> =218)
Chilean seabass	20% (<i>n</i> =20)	27% (<i>n</i> =34)
Sardines	18% (<i>n</i> =17)	21% (<i>n</i> =33)
Striped bass	13% (<i>n</i> =16)	22% (<i>n</i> =23)
Canned tuna	9% (<i>n</i> =45)	15% (<i>n</i> =99)
Catfish	7% (<i>n</i> =27)	15% (<i>n</i> =39)
Grouper	7% (<i>n</i> =14)	10% (<i>n</i> =10)
Monkfish	5% (<i>n</i> =18)	20% (<i>n</i> =20)
Farmed salmon	0% (<i>n</i>=21)	44% (<i>n</i>=46)
Shark	0% (<i>n</i>=21)	40% (<i>n</i>=50)
Farmed shrimp	0% (<i>n</i>=18)	30% (<i>n</i>=47)
Farmed shellfish	0% (<i>n</i>=13)	31% (<i>n</i>=16)
Orange roughy	0% (<i>n</i>=12)	29% (<i>n</i>=17)
Bluefin tuna	0% (<i>n</i> =19)	15% (<i>n</i> =27)
Tilapia	0% (<i>n</i> =27)	10% (<i>n</i> =74)

What did visitors like most about the kiosk?

When visitors were asked if there was anything they particularly liked about the kiosk:

- 57% said they liked the engaging or interesting concept, the funny chef or the tasty appearance of the seafood;
- 24% cited elements of the exhibit’s physical design, such as the appearance of the cafe, the interactivity or the synchronization of the various screens;
- 19% weren’t specific (e.g., "It was all good.").

Was there anything about the kiosk that visitors didn't like?

When visitors were asked if there was anything they particularly disliked about the exhibit:

- 75% didn't cite anything they disliked;
- 15% disliked various aspects of the content/concept (i.e., didn't care for the chef or thought the videos were too long);
- 10% disliked aspects of the design (i.e., they thought the subtitles were too small or the footage on the subtitle screen was distracting or the buttons on the touch screen were unresponsive).

Did visitors pick up a Seafood Watch pocket guide?

- 30% of all visitors (including those who were interviewed and those who weren't) picked up a pocket guide;
- 24% of visitors who were unobtrusively observed picked up a pocket guide.

Adult-only groups were just as likely as groups with children to pick up a guide. In addition, visitors who laughed while watching a video were just as likely to pick up a guide compared with visitors who didn't laugh. However, visitors who watched two or more videos (37%) were more likely to pick up a guide compared with visitors who watched only one video (18%).

Also, visitors who were interviewed in English were more likely to pick up a guide (39%) compared with visitors who were interviewed in Spanish (26%), even though Spanish-language guides were displayed at the kiosk during the study.

Did visitors find the kiosk confusing, unclear or hard to use?

When visitors were asked if there was anything about the kiosk that seemed confusing, unclear or hard to use:

- 67% didn't cite anything that was confusing, unclear or hard to use;
- 33% were confused by various elements, such as the soccer footage playing on the subtitle screen, having to focus on multiple screens at one time (especially if trying to read Spanish subtitles) or expecting to hear the chef's audio narration in Spanish after pressing the "Español" button on the touch screen.

Did visitors find the touch screen confusing, unclear or hard to use?

When visitors were asked if there was anything about the touch screen that seemed confusing, unclear or hard to use:

- 74% didn't cite anything confusing about using the touch screen;
- 26% cited various aspects of the screen (i.e., the screen automatically switched from English to Spanish (a technical glitch), the screen was unresponsive or the type was too small).

Were the words on the subtitle/captioning screen easy to read? Was the screen placed in a suitable location?

When visitors were asked if they noticed the words on the subtitle/captioning screen, 93% of visitors said they noticed them. Of these visitors:

- 84% said the words were easy to read;
- 8% said the words weren't easy to read, moved too fast or there were too many screens to focus on at one time;
- 8% said they noticed, but didn't read, the words.

Did visitors notice the task buttons on the touch screen?

Eighty-seven percent of all visitors (including 85% of Spanish interviewees) said they noticed the "Start Over" and "Español/English" buttons on the touch screen.

Phase II: Summative Evaluation at the California Science Center

Purpose

During May 2010, a final version of the Seafood Watch Cafe was installed and evaluated at the California Science Center in Los Angeles. The purpose of this summative evaluation was to explore how visitors would respond to the kiosk when it was displayed outside the context of the Aquarium. The study also provided an opportunity to evaluate the kiosk with an audience that was more representative of future kiosk users than the Aquarium's audience. The summative evaluation study provided an opportunity to follow up on questions that emerged during the formative evaluation study. (Specific research questions are included in the "Results" section below.)

Methods

The study took place over a period of two weeks while the kiosk was installed in a corridor at the entrance to the Science Center's newly opened Ecosystems gallery. Data collectors unobtrusively observed and recorded the behaviors of a random sample of visitors who used the kiosk, including children and adults. Afterward, the data collectors approached each group and invited one adult to participate in a brief interview. Visitors had the choice of completing the interview in English or in Spanish. Visitors who left the kiosk before watching at least one video were asked an abbreviated list of questions (Appendix H). As with the previous study at the Aquarium, children and adult chaperones attending school programs were excluded from the study.

Results

What did visitors think the kiosk was about?

When visitors were asked how they would describe the kiosk to another visitor, three-quarters (75%) thought the exhibit was about some aspect of buying, ordering and/or choosing seafood in an environmentally friendly, responsible or sustainable way; a few visitors in this group (10%) thought the main purpose of the kiosk was to present information about specific types of seafood. In contrast, other visitors (25%) thought the purpose was to present information about specific fishing practices (Table 5).

Did visitors understand the kiosk's main message? Did their level of understanding relate to the number of videos they watched?

The majority of visitors (79%) were able to describe at least part of the main message—22% of visitors recalled specific details, while 57% recalled some aspect of the main message. Visitors who watched three or more videos were more likely to cite at least part of the main message when compared with visitors who watched fewer videos (Table 6).

Table 5. What Science Center visitors thought the kiosk was about

Note: Responses are solely from visitors who cited at least part of the main message.

	Frequency	Percent
How to buy/order/choose seafood in a sustainable/responsible/environmentally friendly way	84	75%
General consumption of seafood in sustainable way	73	65%
Be careful when choosing/eating canned tuna	6	5%
Don't eat shark	5	5%
Sustainable/less environmentally impactful fishing practices	27	25%
Information about sustainable/less environmentally impactful fishing practices	18	16%
Information about overfishing and dwindling fish populations	5	5%
Information on farm-raised fish	3	3%
Problems with bycatch, especially from tuna fisheries	1	1%
General information about the conservation of ocean life	1	1%
Total responses	112	100%

Table 6. Science Center visitors' ability to cite the main message based on their viewing behavior

Note: There were statistically significant differences between visitors based on the number of videos they watched.

Level of Understanding	Watched one or two videos (n=83)	Watched three or more videos (n=63)
Cited detailed main message	18%	27%
Cited part of main message	53%	62%
Did not cite main message	29%	11%

How many videos did visitors watch? Which videos were the most popular?

Visitors watched a median of two videos; 42% of visitors watched only one video, 31% watched two videos and 22% watched more than two videos. Adult-only groups watched just as many videos as families did, and the number of videos viewed was similar for men and women.

The most popular videos were about canned tuna and shark (Table 7). The orange roughy, farmed shellfish, striped bass and grouper videos were watched by relatively small proportions of visitors.

About half (49%) of visitors said they chose to view a particular video because the featured fish was the one they usually eat, order or purchase. Other visitors (15%) said they chose to view a video about a particular fish because they were unfamiliar with or curious about that species. An additional 25% of visitors said they left the choice of which video to view to others in their group, usually children (Table 8).

Table 7. Proportions of Science Center visitors who watched specific videos

Video Title	Unobtrusive Observation (n=236)
Introduction	45%
Canned tuna	30%
Shark	30%
Tilapia	17%
Monkfish	16%
Catfish	15%
Farmed salmon	15%
Farmed shrimp	12%
Chilean seabass	11%
Sardines	9%
Bluefin tuna	8%
Farmed shellfish	6%
Orange roughy	6%
Striped bass	5%
Grouper	5%

Table 8. Why Science Center visitors chose to watch a particular video

	Frequency	Percent
Personally selected	103	70%
Favorite/usually eaten/ordered/purchased	72	49%
Unfamiliar/curious about this fish	21	15%
Looking for the most sustainable fish to consume	5	3%
Commonly seen fish in the area/at restaurants/on menus	5	3%
Not personally selected	39	27%
Someone else/children chose the video/video was already playing	36	25%
Only watched the introduction video	2	1%
Didn't know other options were available to select	1	1%
No reason/random	4	3%
Total responses	146	100%

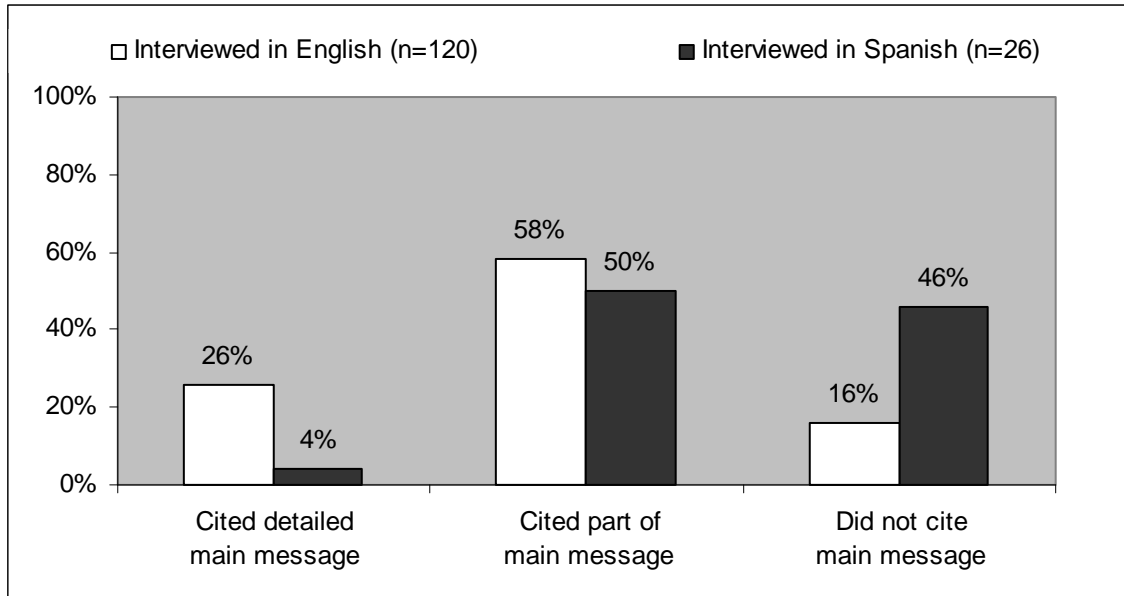
Did visitors' understanding of the main message relate to the amount of Spanish they spoke?

Slightly more than one-third (39%) of visitors interviewed for the study said they spoke Spanish. Of these visitors, one-third (33%) spoke Spanish all of the time at home, 28% spoke Spanish most of the time at home, 33% spoke Spanish some of the time at home and 6% didn't speak any Spanish at home.

Visitors who spoke Spanish were just as likely to comprehend the main message and watch the same number of videos compared with visitors who spoke English, regardless of the amount of Spanish they spoke at home. However, the majority of visitors who were interviewed in English (84%) were able to describe at least part of the main message compared to about half of visitors who were interviewed in Spanish (54%) (Figure 2).

Figure 2. Science Center visitors' ability to cite the main message based on the language they were interviewed in

Note: There were statistically significant differences between visitors interviewed in English and visitors interviewed in Spanish.



Did visitors who thought the kiosk was amusing view more videos and comprehend more of the main message?

The vast majority of visitors (86%) thought the kiosk was funny or amusing, while 8% were unsure (or felt that others would find it funny), and 6% didn't think the exhibit was funny. On average, visitors who thought the kiosk was funny watched the same number of videos and expressed the same level of detail in the main message compared with visitors who didn't find the kiosk funny.

Did language preferences relate to whether visitors found the kiosk amusing?

There were no differences in whether visitors found the kiosk amusing or funny based on their ability to speak Spanish, the amount of Spanish they spoke at home or their preferred interview language.

Did visitors view the videos in their entirety—or did they only watch parts of them?

More than one-half (54%) of visitors watched all videos in their entirety, from beginning to end. About one-third (31%) arrived at the kiosk while a video was already playing, and one-third (37%) left before a video had ended. For those visitors who left early, about two-thirds (67%) left while the first video was playing. Given the entire sample of visitors, one-quarter (25%) of visitors left the kiosk before the first video they were watching had ended.

Visitors who watched two or more videos (68%) were more likely than visitors who watched only one video (36%) to view a video from beginning to end. Reciprocally, visitors who watched only one (or part of one) video (59%) were more likely than visitors who watched two or more videos (21%) to leave before a video had ended.

Why did some visitors leave before viewing at least one complete video?

About one-half (46%) of the visitors who left the kiosk before watching at least one video said they left for reasons that were unrelated to the kiosk. For example, some of these visitors were pressed for time to see other parts of the Science Center or were visiting with children who didn't want to stay. However, 38% of visitors cited reasons that directly related to the kiosk, such as already being familiar with the content (Table 9).

Table 9. Why Science Center visitors left the kiosk before viewing one entire video

Note: Responses are from visitors who completed the long interview.

	Frequency	Percent
Non-exhibit based reasons	34	46%
Wanted to see other parts of the Science Center	16	22%
Kids were too young or didn't want to stay/family waiting elsewhere	10	14%
No time	7	9%
Someone else was using the exhibit	1	1%
Exhibit elements/content	28	38%
Already familiar with the exhibit	10	14%
Didn't like the chef/message	5	7%
Thought the exhibit hadn't started/was finished/not working	4	5%
Don't eat seafood	3	4%
Don't like the exhibit screens	2	3%
Thought the exhibit was for kids	2	3%
Took a Seafood Watch card	1	1%
The exhibit didn't serve food	1	1%
Not interested/I don't know	12	16%
Total responses	74	100%

Did visitors find the kiosk confusing, unclear or hard to use?

The majority of visitors (85%) didn't find anything about the kiosk that was confusing, unclear or hard to use. Of the remaining 15% of visitors who said they had difficulty, about half (6%) thought the content was difficult to understand, especially for children (Table 9). There were no differences between visitors who thought the exhibit was clear and those who thought it was confusing based on their preferred language or their ability to speak Spanish.

Did visitors recognize the names of the seafood listed on the menu?

Nearly two-thirds (63%) of visitors saw at least one (and often several) items listed on the menu that they didn't recognize. The most frequently cited species were orange roughy, grouper and monkfish. Spanish speakers (90%) were more likely than English-only speakers (42%) to name a fish they didn't recognize.

What types of translation options did visitors prefer?

More than one-third (38%) of visitors who spoke Spanish, and more than one-half (55%) of visitors interviewed in Spanish, liked the option of including a Spanish-speaking chef. English-only speakers, as well as those visitors interviewed in English, were satisfied with the current translation option—a button that allowed them to select Spanish or English text (Tables 10 and 11).

Table 10. Science Center visitors' translation preferences based on language spoken

Note: There were statistically significant differences between visitors who spoke Spanish and visitors who didn't.

Translation Option	Visitors who speak Spanish (n=79)	Visitors who do not speak Spanish (n=87)	All visitors (n=166)
A button that lets you choose either English or Spanish text	23%	36%	30%
All text presented simultaneously in English and Spanish	23%	35%	29%
A button that lets you view a Spanish-speaking chef	38%	21%	29%
A button that lets you hear the chef's voice dubbed in Spanish	14%	7%	10%
None of these options	2%	2%	2%

Table 11. Science Center visitors' translation preferences based on the language they were interviewed in

Note: There were statistically significant differences between visitors interviewed in English and visitors interviewed in Spanish.

Translation Option	Visitors who were interviewed in Spanish (n=31)	Visitors who were interviewed in English (n=135)	All visitors (n=166)
A button that lets you choose either English or Spanish text	10%	34%	30%
All text presented simultaneously in English and Spanish	23%	30%	29%
A button that lets you view a Spanish-speaking chef	55%	23%	29%
A button that lets you hear the chef's voice dubbed in Spanish	13%	10%	10%
None of these options	0%	3%	2%

Did visitors pick up a Seafood Watch pocket guide?

More than two-thirds (69%) of visitors picked up a pocket guide from the kiosk. The most common reasons visitors gave for not taking a guide was the guide's appearance, design or content (35%) or that they didn't notice the guides (32%) (Table 12). Visitors who watched two or more videos were more likely to take a pocket guide (81%) than visitors who watched fewer than two videos (54%). Otherwise, there were no differences between visitors who picked up a guide and those who didn't, based on their group composition, gender or language spoken at home.

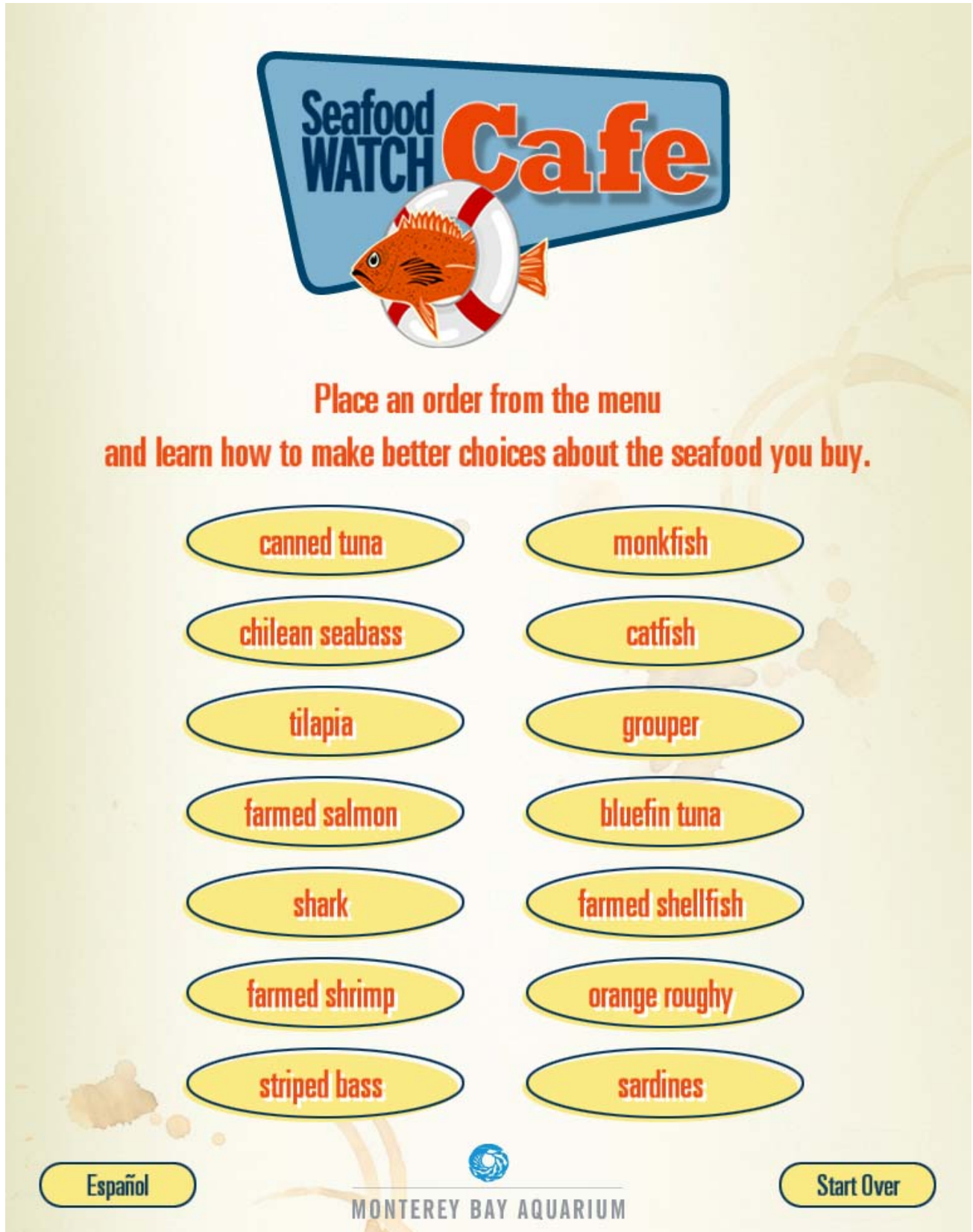
Table 12. Why Science Center visitors didn't take a Seafood Watch pocket guide

	Frequency	Percent
Guide's appearance/design/content	10	35%
Not interested/won't use the guide	6	21%
Already read it/know the information	3	10%
Got enough information from the video	1	4%
Visitor didn't see/notice the guides	9	32%
Unsure about taking the guide	2	8%
Didn't know I could take one	1	4%
Thought another group member took one	1	4%
I don't know/no reason	7	25%
Total responses	28	100%

Appendix A: Photo of the Seafood Watch Cafe



Appendix B. Photo of the touch screen (English)



Appendix C. Photo of the touch screen (Spanish)



Appendix D: Sample Characteristics

Phase I: Formative Evaluation at Monterey Bay Aquarium (December 2009)

Total visitors (recruited plus unobtrusively observed)	360
Recruited visitors	218
English intercept/English interview	94
Spanish intercept/English interview	32
Spanish intercept/Spanish interview	92
Unobtrusively observed visitors	141
Adult-only group	82 (58%)
Group with children	59 (42%)
Who selected the videos? (Data from unobtrusive observations)	
Children	34 (59%)
Adults	14 (24%)
Both adults and children	10 (17%)

Phase II: Summative Evaluation at California Science Center (May 2010)

Total number of visitors (observations and interviews)	236
Observation and long interview	146
Observation and short interview	74
Observation only	16
Who selected the videos?	
Children	56 (43%)
Both adults and children	36 (28%)
Adults	12 (9%)
No one (a video was already playing)	27 (21%)

Appendix E: Formative Evaluation Observation and Interview Form (English)

Hi, the Aquarium is testing out a new exhibit idea. Do you have a few minutes to use the exhibit and give us your feedback?

[If yes] Great, please use this exhibit like you would any other at the Aquarium. Let me know when you're done and I'll ask you a few questions.

[If no] Okay, enjoy your visit.

Observation:

1. Group composition: Adult only w/kids **[If w/kids]** Who selects videos: Adult only Kids only Both

2. Anyone in group take a Seafood Watch card? Yes No Already have one

3. Check which videos watched and check if visitor laughs during video:

Video title	Watch	Laugh
Intro		
Bluefin tuna		
Canned tuna		
Catfish		
Chilean seabass		
Farmed salmon		
Farmed shellfish		
Farmed shrimp		
Grouper		
Monkfish		
Orange roughy		
Sardines		
Shark		
Striped bass		
Tilapia		

Change screen for visitors

1. Is this your first visit to the Aquarium? Yes No

2. How would you explain the point of this exhibit to another Aquarium visitor?
[Prompt]: What do you think this exhibit is about?

3. Some visitors think the subject of this exhibit is too serious to be using humor to discuss it. What do you think?

[If humor is appropriate] Which parts, if any, did you find funny?

4. Was there anything about this exhibit that seemed confusing, unclear or hard to use?

5. Was there anything about the touch screen that seemed confusing, unclear or hard to use?

6. We're trying to figure out where to place certain parts of the exhibit, so did you notice the words in this area *[point to upper screen/captions]*? Yes No

[If yes] If you read them, were they easy to see? Yes Did not read

7. On the touch screen, did you notice these *[point]* buttons that say "Start Over" and "Español/English"? Yes No

8. Was there anything about the exhibit that you particularly liked?

9. Was there anything about the exhibit that you particularly disliked?

Appendix F: Formative Evaluation Observation and Interview Form (Spanish)

Hi, the Aquarium is talking to visitors who speak Spanish about a new exhibit idea. Do you speak Spanish?

[If no] Okay, thank you and enjoy your visit.

[En caso afirmativo] Genial, ¿tiene algunos minutos para utilizar la exhibición y darnos su opinión?

[En caso afirmativo] Excelente, por favor utilice esta exhibición como lo haría con cualquier otra del Acuario. Avíseme cuando haya terminado y le haré algunas preguntas.

[En caso negativo] De acuerdo, disfrute su visita.

1. ¿Es su primera visita al Acuario? Sí No

2. ¿Cómo explicaría a otro visitante del Acuario el mensaje que quiere transmitir esta exhibición?
[Sugerencia]: ¿Sobre qué piensa que trata la exhibición?

3. Algunos visitantes piensan que el tema de esta exhibición es demasiado serio para tratarlo con humor. ¿Qué opina?

[En caso que el humor sea apropiado] ¿Qué partes encontró graciosas?

4. ¿Hubo algo en esta exhibición que le pareciera confuso, poco claro o difícil de usar?

5. ¿Hubo algo en la pantalla táctil que le pareciera confuso, poco claro o difícil de usar?

6. Estamos intentando decidir dónde colocar ciertas partes de la exhibición, por lo que ¿notó las palabras que aparecen en esta área *[apuntar a la pantalla/títulos en la parte superior]*?
Sí No

[En caso afirmativo] Si las leyó, ¿pudo verlas fácilmente? Sí No las leí

7. En la pantalla táctil, vio los botones *[apuntar]* que dicen "Comenzar de nuevo" y "Español/English"? Sí No

8. ¿Hubo alguna parte de la exhibición que le gustó en especial?

9. ¿Hubo alguna parte de la exhibición que le disgustó en especial?

Interview Intercept Language

Hi! *¿Cómo está?* [Conduct the remainder of the greeting in the same language the visitor uses to reply.]

FOR VISITORS WHO DID NOT WATCH AT LEAST ONE COMPLETE VIDEO [short]:

The Science Center wants to know more about this exhibit you just stopped at. May I ask you a couple of questions about it even though you didn't stay long?

El Centro de ciencias desea saber más sobre esta exposición que usted acaba de visitar. ¿Puedo hacerle unas preguntas a pesar de que no se quedó mucho tiempo?

FOR VISITORS WHO WATCHED AT LEAST ONE COMPLETE VIDEO [long]:

The Science Center wants to know more about this exhibit you just stopped at. May I ask you a couple of questions about it? *El Centro de ciencias desea saber más sobre esta*

exposición que usted acaba de visitar. ¿Puedo hacerle unas preguntas?

[*If no,*] **Thanks anyway. Enjoy your visit.** *Gracias de todos modos. Disfrute de su visita.*

Appendix H: Summative Evaluation Bilingual Interview Form (Short Interview)

We'd like to present more information in Spanish at this exhibit.

Nos gustaría presentar más información en español en esta exposición.

[For Spanish-speaking visitors, skip to Q. #2]

1. Do you speak Spanish? ¿Habla español?

Yes/Sí *[If yes, ask visitor if they would prefer that you speak in Spanish.]*

No/No *[If no, skip to Q. #3 and then end interview.]*

2. How often do you speak Spanish at home?

¿Con qué frecuencia habla español en su casa?

All of the time
Siempre

Most of the time
La mayoría del tiempo

Some of the time
A veces

Not at all
Nunca

3. Was there any particular reason you didn't spend much time at the exhibit?

¿Hay alguna razón en particular por la cual usted no estuvo mucho tiempo en la exposición?

I have one more question about this exhibit in Spanish

[Tengo una pregunta mas sobre esta exposición en español]

4. Which one of the following translation options would you prefer to see in this exhibit?

¿Cuál de las siguientes opciones de traducción preferiría usted ver en esta exposición? (Sólo una)

[Prompt: Which one of these options might encourage you to stay longer at the exhibit?]

¿Cuál de estas opciones le animaría a permanecer más tiempo en la exposición? (Elija sólo una)

a b c d e

- a. all text presented simultaneously in English and Spanish
que todo el texto apareciera en inglés y en español simultáneamente
- b. a button that lets you choose either English or Spanish text
un botón que permita elegir el texto en inglés o en español
- c. a button that lets you hear the chef's voice dubbed in Spanish
un botón que permita escuchar el diálogo del cocinero doblado al español
- d. a button that lets you view a Spanish-speaking chef
un botón que permita ver a un cocinero hablando en español
- e. none of these options
ninguna de estas opciones

Appendix I: Summative Evaluation Bilingual Interview Form (Long Interview)

We'd like to present more information in Spanish at this exhibit.

Nos gustaría presentar más información en español en esta exposición.

[For Spanish-speaking visitors, skip to Q. #2]

1. Do you speak Spanish? ¿Habla español?

Yes/Sí *[If yes, ask visitor if they would prefer that you speak in Spanish.]*

No/No *[If no, skip to Q. #3 and then end interview.]*

2. How often do you speak Spanish at home?

¿Con qué frecuencia habla español en su casa?

All of the time

Siempre

Most of the time

La mayoría del tiempo

Some of the time

A veces

Not at all

Nunca

3. How would you explain the point of this exhibit to another visitor at the Science Center?

¿Cómo explicaría usted el mensaje de esta exposición a otro visitante del Centro de ciencias?

[Prompt: What would you say this exhibit is about?]

¿Cuál diría usted es el objetivo de esta exposición?

4. Did you find this exhibit funny or amusing?

¿Encontró esta exposición graciosa o divertida?

Yes

Sí

No

No

Not really/I think others may find it funny

De verdad, no. Creo que otros quizás la encuentren graciosa

5. Was there anything about the exhibit that seemed confusing, unclear or hard to use?

¿Hay algo sobre la exposición que le pareció confuso, poco claro, o difícil de usar?

6. I noticed you watched [a/a few/several/a couple] video(s). What made you choose

[that one/those particular] video(s)?

Me di cuenta que usted vio el/algunos/varios video(s). ¿Por qué eligió ese (esos)?

7. Were there any fish or other seafood items on the menu that you didn't recognize or that you refer to by a different name? [Show visitor a menu.]

¿Hay algún pescado o marisco en el menú que usted no reconoció o que conoce por otro nombre?

Yes *[Which ones?]* _____

Sí [¿Cuáles?] _____

No

No

8. [Visitor picked up a SFW card skip to Q. 9]

I noticed you didn't pick up one of these cards. Any particular reason why?

[Show visitor SFW card.]

Note que usted no recogió una de estas tarjetas. ¿Hay alguna razón en particular porque no lo hizo?

I have one more question about this exhibit.

[Tengo una pregunta mas sobre esta exposición.]

9. Which one of the following translation options would you prefer to see in this exhibit?

¿Cuál de las siguientes opciones de traducción preferiría usted ver en esta exposición? (Sólo una)

[Prompt: Which one of these options might encourage you to stay longer at the exhibit?]

¿Cuál de estas opciones le animaría a permanecer más tiempo en la exposición? (Elija sólo una)

a b c d e

- a. all text presented simultaneously in English and Spanish
que todo el texto apareciera en inglés y en español simultáneamente
- b. a button that lets you choose either English or Spanish text
un botón que permita elegir el texto en inglés o en español
- c. a button that lets you hear the chef's voice dubbed in Spanish
un botón que permita escuchar el diálogo del cocinero doblado al español
- d. a button that lets you view a Spanish-speaking chef
un botón que permita ver a un cocinero hablando en español
- e. none of these options
ninguna de estas opciones