

The Lab and Lunch Series

Formative Evaluation

Joyce Ma and Lisa Sindorf

December 2013

THIS IS **NOT** A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
 - small sample sizes
 - expedited analyses
 - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
 - a focus on problems and solutions, rather than successes
 - a change in form or title of the final exhibit/program

Formative Evaluation

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BACKGROUND

Lab and Lunch, an adult lecture series, featured the investigations visiting scientists, educators, and artists are conducting about the San Francisco Bay and the ocean. It was designed to engage the audience and increase their awareness of current research by providing them opportunities to interact with some of our external partners who worked on the Exploratorium's Observatory and East Gallery. Each Lab and Lunch was held noon to 1 PM in the Observatory at the Exploratorium. (See Figure 1.) The public and Exploratorium staff were invited to attend and provided lunch during the lecture.



Figure 1. Lab and Lunch Setup

The series consisted of four Lab and Lunches:

Lab and Lunch	Description (from the flyer)
(Sept 18) <i>Dynamic Waters: San Francisco Bay's Surface Currents, or How to Study the Ocean Without Getting Wet!</i>	Toby Garfield, Director of the Romberg Tiburon Center for Environmental Studies, shares how high-tech instruments and new visualizing capabilities can determine how currents affect the biology of the Bay, as well as how pollutants, particles, and small vessels are daily buffeted by dynamic currents.
(Nov 7) <i>Seeing the Blue Serengeti: Understanding Life in the Open Ocean</i>	Randy Kochevar of Tagging of Pacific Predators, shares the routes used by whales, sharks, and other large marine creatures discovered through satellite tracking of over 22 creatures. The results are helping us better understand the behavior of these creatures, how they are defined by environmental conditions, and how we can better plan marine spatial reserves and shipping routes.
(Nov 14) <i>Getting Intimate with a Body of Water</i>	Science writers Ariel Rubissow Okamoto and Kathleen Wong, authors of <i>Natural History of San Francisco Bay</i> , share stories about researching their book in, on, and around the Bay.
(Dec 4) <i>The Changing Plankton of San Francisco Bay</i>	Biological oceanographer at the US Geologic Survey, Tara Schraga, shares recent research findings about the plankton of San Francisco Bay.

PURPOSE

Formative evaluation was conducted for each of the above Lab and Lunches to improve the subsequent Lab and Lunch in this series and to inform similar offerings in the future. More specifically, surveys, administered to Lab and Lunch attendees, helped us learn about their reactions to each of these talks. The survey questions looked in particular at attendees' engagement with, perceived relevance and awareness of the content as well as the accessibility of the talk.

METHOD

A paper survey and pencil were placed on each seat at the Lab and Lunch. Completed forms were collected by the Exploratorium evaluation staff afterwards. An evaluator also stood at the exit of the Observatory and asked attendees who left early to fill out their survey. The survey questions can be found in Appendix A.

DATA COLLECTED

Both the public and the Exploratorium staff were invited to Lab and Lunch, although the public was given first access to seats and lunch. Overall, 55% of the people who came were the public: Exploratorium

members, visitors to the museum, or other guests who stopped in for the Lab and Lunch; while the remaining 45% were on the Exploratorium staff. See Table 1.

Table 1. Tally of staff and non-staff attendees

Lab and Lunch	Public (non-staff)			Total Public	Staff/ volunteer	Total
	Member	Visitor	Lab and Lunch Guests			
<i>Dynamic Waters</i>	2	4	12	18	20	38
<i>Seeing the Blue Serengeti</i>	4	5	11	20	16	36
<i>Getting Intimate with a Body of Water</i>	1	9	12	21	20	42
<i>The Changing Plankton of San Francisco Bay</i>	3	3	29	35	23	58
<i>Total</i>	10	21	64	94	79	174

Table 2 and Table 3 give the demographic breakdown according to gender and age, respectively. Figure 2 and Figure 3 show the count according to public and staff respondents. Overall, the series attracted more women than men, both from the public and from the Exploratorium staff, and the attendees were predominantly between the ages of 26 and 45 years old, although the percentages differed among talks.

Table 2. Gender of respondents

Lab and Lunch	Female	Male	Unspecified	Total
<i>Dynamic Waters</i>	20	18	0	38
<i>Seeing the Blue Serengeti</i>	25	10	1	36
<i>Getting Intimate with a Body of Water</i>	22	20	0	42
<i>The Changing Plankton of San Francisco Bay</i>	39	17	2	58
<i>Total</i>	106	65	3	174

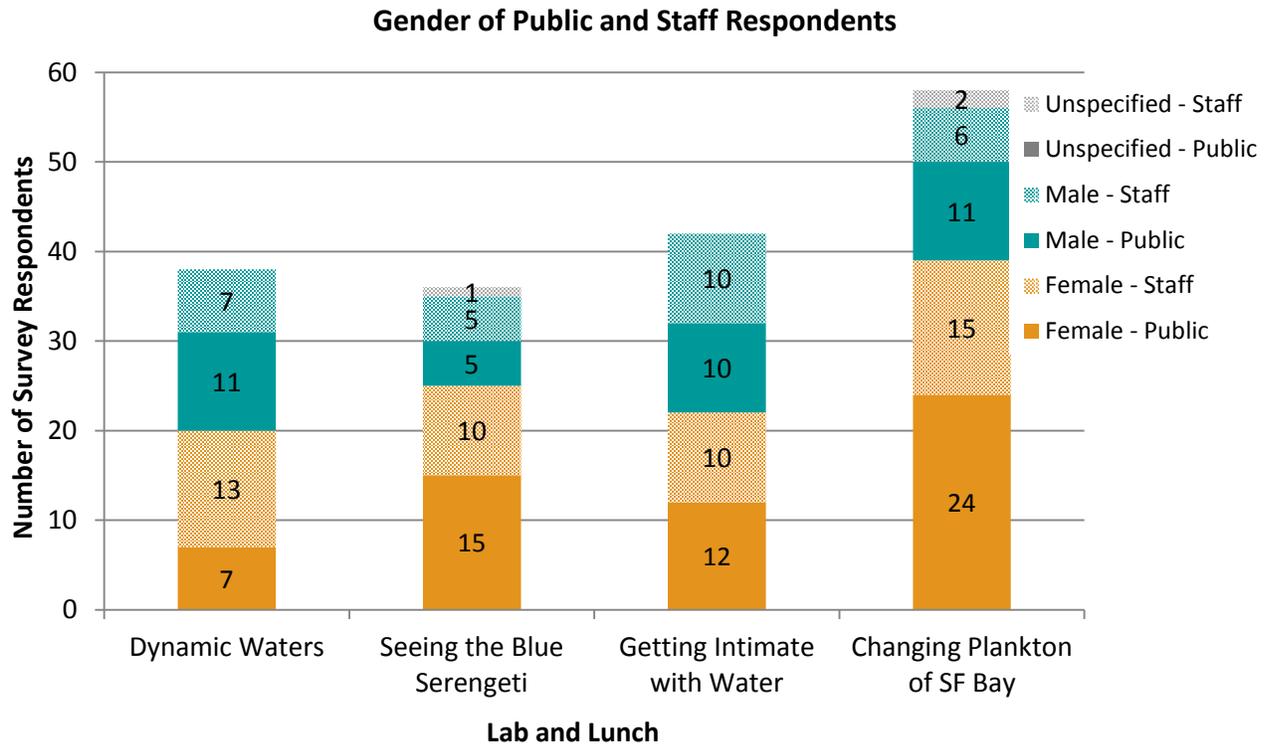


Figure 2. Gender of the survey respondents grouped by public or staff

Table 3. Age group of respondents

Lab and Lunch	18-25	26-45	46-65	65+	Unspecified	Total
<i>Dynamic Waters</i>	3	20	13	2	0	38
<i>Seeing the Blue Serengeti</i>	3	23	7	2	1	36
<i>Getting Intimate with a Body of Water</i>	4	20	14	4	0	42
<i>The Changing Plankton of San Francisco Bay</i>	3	41	13	0	1	58
<i>Total</i>	13	104	47	8	2	174

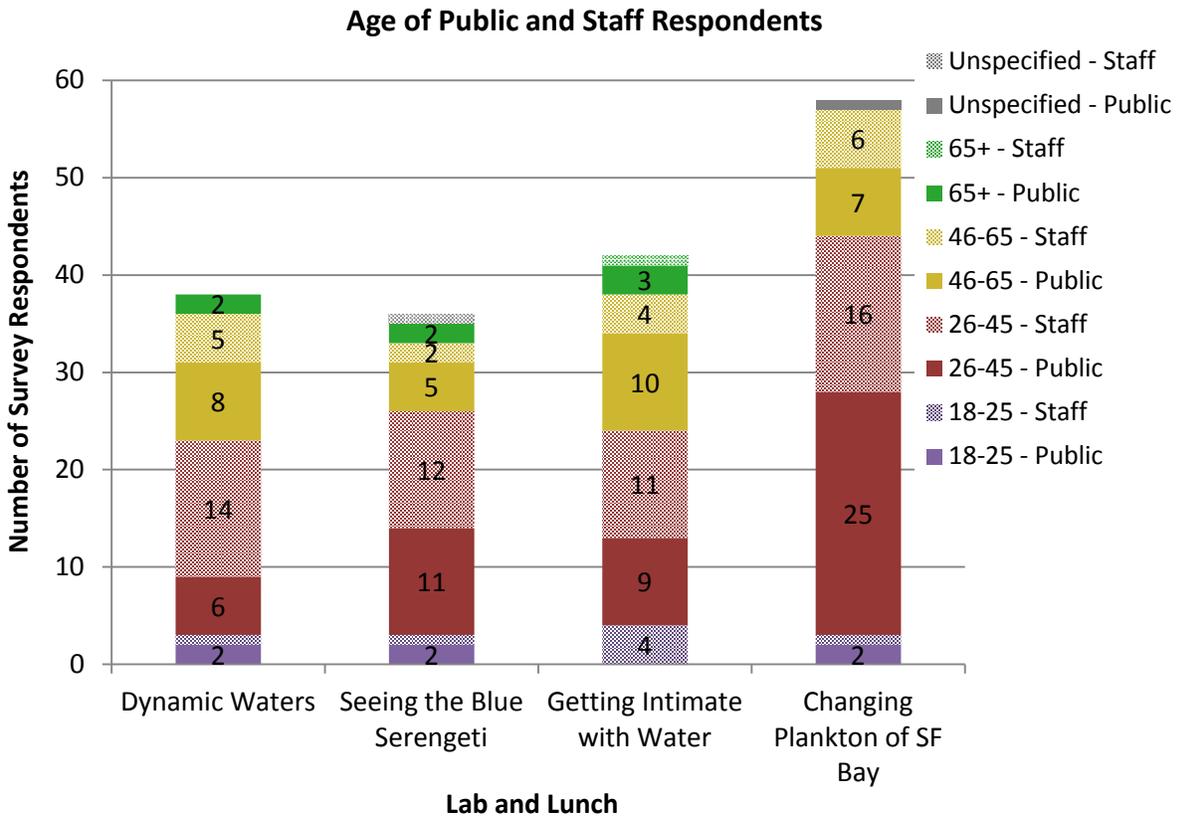
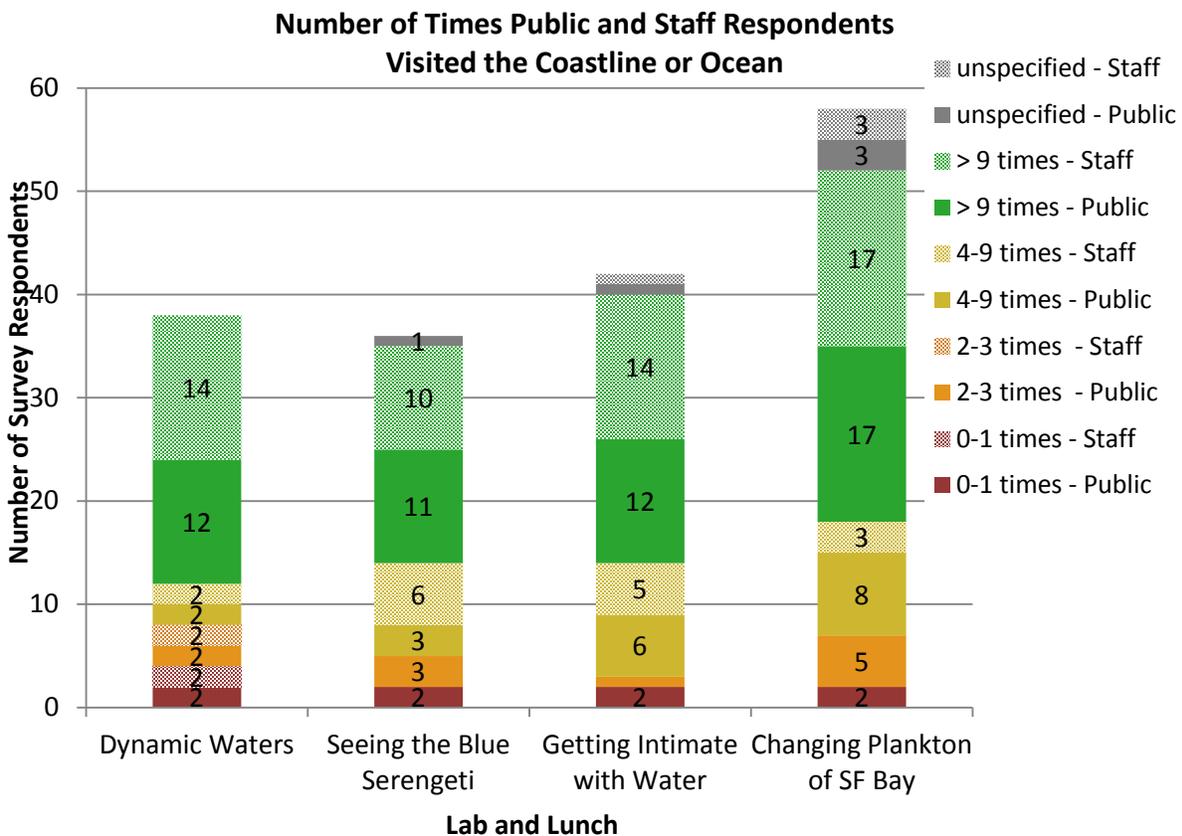


Figure 3. Age group of the survey respondents grouped by public or staff

To gauge familiarity with the ocean, we asked attendees how often they have visited the coastline or ocean in the past year. Their responses are tallied in Table 4 and graphed in Figure 4. Not surprisingly, the staff come often, but the public guests also frequent the coastline or ocean more than nine times a year. This may suggest that the Lab and Lunch series attracted people who already are familiar with the ocean or Bay.

Table 4. How many times respondents visited the coastline or ocean in the past year

Lab and Lunch	0-1 times	2-3 times	4-9 times	> 9 times	No answer	Total
<i>Dynamic Waters</i>	4	4	4	26	0	38
<i>Seeing the Blue Serengeti</i>	2	3	9	21	1	36
<i>Getting Intimate with a Body of Water</i>	2	1	11	26	2	42
<i>The Changing Plankton of San Francisco Bay</i>	2	5	11	34	6	58
<i>Total</i>	10	13	35	107	9	174

**Figure 4. Number of times public and staff respondents visited the coastline or ocean in the past year**

Almost half of the public participants (46/95) also noted having a special interest or background that helped them understand or appreciate the topic discussed during Lab and Lunch. Of these, 58% (28/46) had an interest or background in the ocean or the Bay. See Table 5 and Figure 5. This suggests that the public came to the Lab and Lunches for a variety of reasons that went beyond an interest in the ocean or Bay. More details of the interests and background respondents described can be found in Appendix B.

Table 5. Tally of the respondents reporting having a special interest or background that helped them understand or appreciate the Lab and Lunch. The table notes the number of non-staff/staff (total) respondents.

Lab and Lunch	Special interest or background in oceans	Special interest or background in non-ocean related topic	No special interest or background indicated	Total
<i>Dynamic Waters</i>	15	5	18	38
<i>Seeing the Blue Serengeti</i>	10	7	19	36
<i>Getting Intimate with a Body of Water</i>	11	8	23	42
<i>The Changing Plankton of San Francisco Bay</i>	22	7	29	58
<i>Total</i>	58	27	89	174

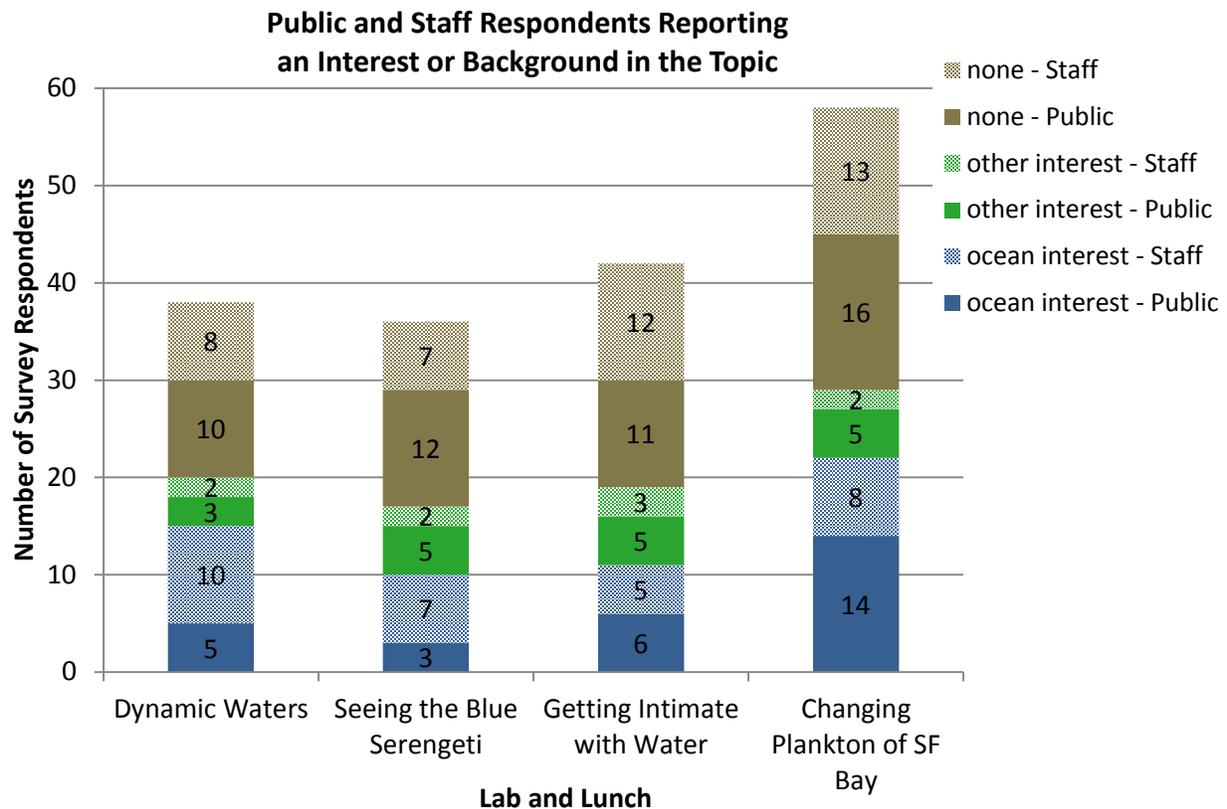


Figure 5. Respondents who self-reported an interest or background that helped them better understand and/or appreciate the talk, according to public or staff respondents

RESULTS

This section presents the survey results, organized according to the Lab and Lunch in the sequence each was offered. This is followed by the summary findings for the entire series.

Dynamic Waters

In general, attendees enjoyed the talk greatly and thought Toby Garfield was an enthusiastic speaker. The survey respondents thought the Dynamic Waters exceeded their expectations and rated this Lab and Lunch highly in engagement, relevance, awareness and accessibility. Refer to Figure 6.

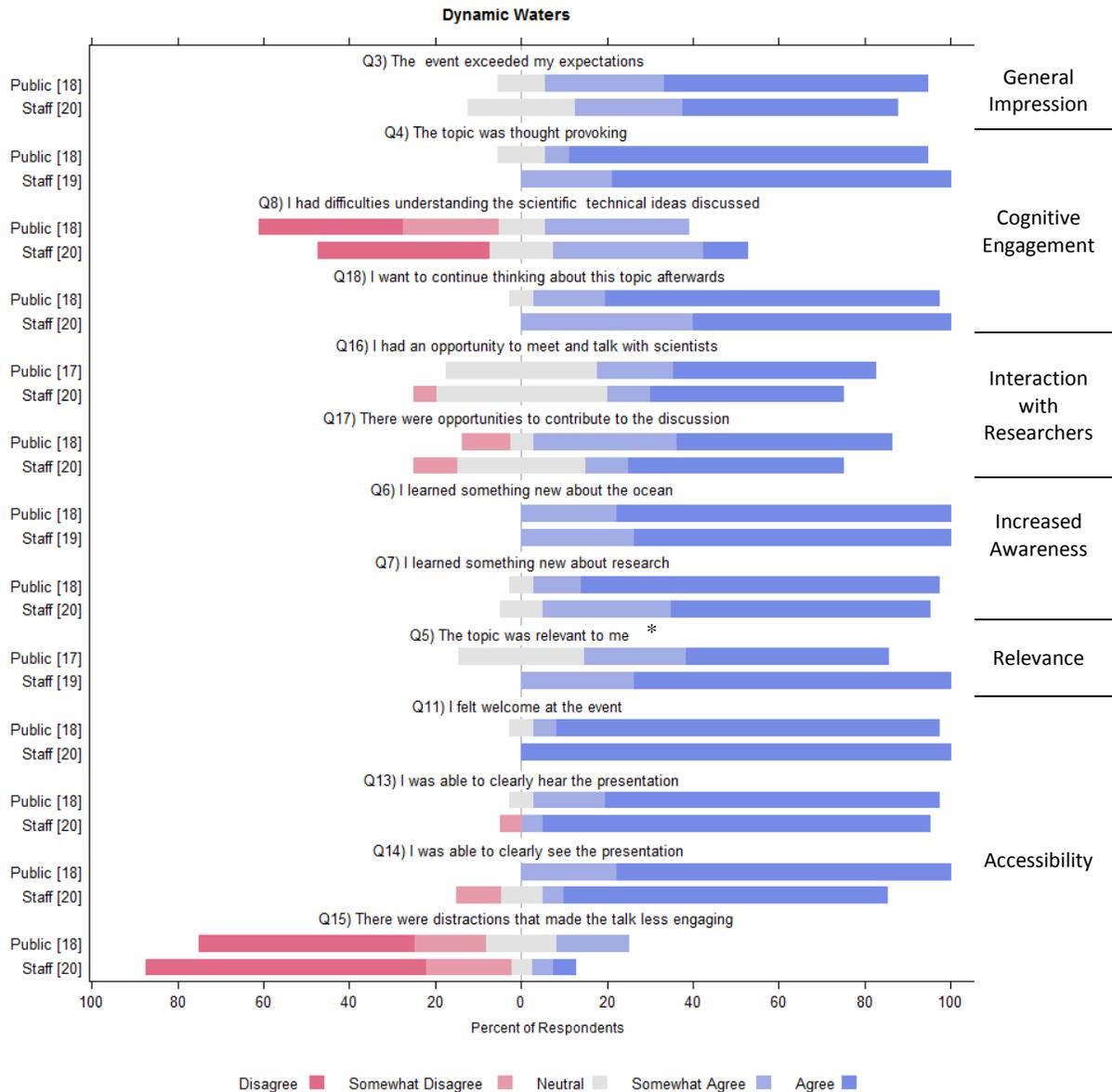


Figure 6. Attendees' responses to survey questions for Dynamic Waters. The total number of respondents is noted in [].

* A Wilcoxon Rank Sum test indicated a statistically significant difference between the staff and the public's rating of the perceived relevance of the talk, $W = 106$, $p = 0.0428$.

In addition, attendees wrote comments complimenting the speaker:

Great speaker!

Toby was great! More,more,more!

Alternatively, the feedback indicated areas where the Lab and Lunch series could be improved. These are listed in Table 6 and were conveyed to the series organizers, who then tried to address each point for the next Lab and Lunch.

Table 6. Feedback for improving Dynamic Waters.

Finding	Suggested Change
Some attendees had trouble keeping up with the technical content.	➤ Spend more time on foundational ideas.
Non-staff participants were less likely to find the talk as relevant as staff participants.	➤ Highlight the relevance of the research.
People in the back found it a bit difficult to see the presenter and presentation.	➤ Stagger the chairs so shorter people seated in the back rows can see.
A few people were distracted by extraneous sounds.	➤ Ask attendees to silence their cell phones.
A few attendees complained about difficulties making out the slides.	➤ Improve the resolution of the slides the presenters use.
One person had trouble finding the location of the Lab and Lunch.	➤ Improve the map and accompanying directions.

Seeing the Blue Serengeti

In general, attendees were enthusiastic about Randy Kochevar and the content of the second Lab and Lunch. They complimented the speaker on an accessible, relevant and interesting talk. An attendee who was at the first talk especially appreciated the longer time allocated for Q and A. Some of the audience's comments included:

Great event. Well attended by the public. Audience seemed very engaged with topic and asked a lot of questions to speaker during Q and A. Let's have more of these events.

The speaker was quite good. Talk was at an appropriate level for non-experts. Also, a nice mix of research and how it impacts policy. Local focus also a plus.

Great talk. Clearly conveyed. Good background information for people.

Attendees' survey responses are shown in Figure 7.

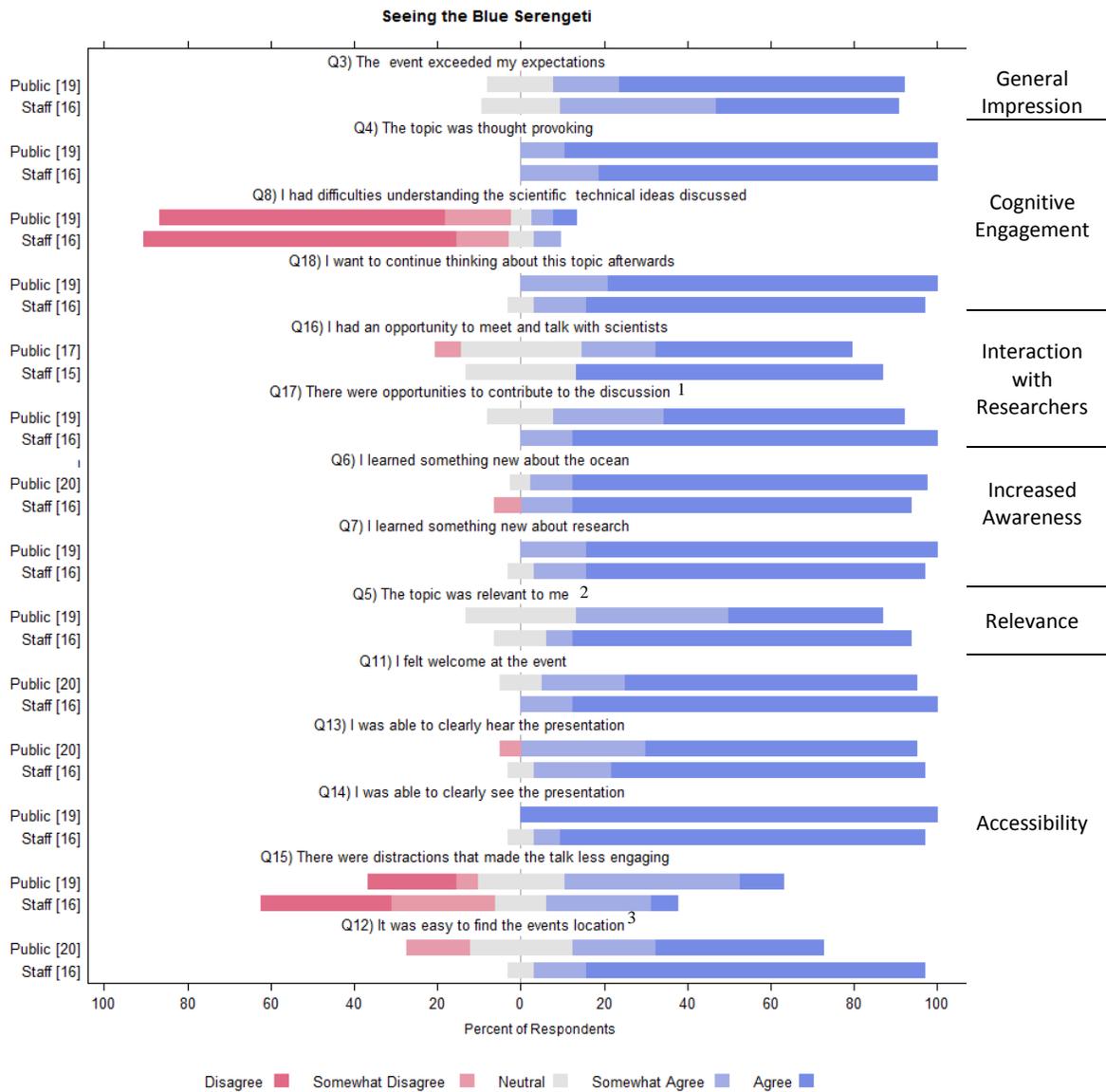


Figure 7. Attendees' responses to survey questions for Seeing the Blue Serengeti . The total number of respondents is noted in [].

¹ A Wilcoxon Rank Sum test indicated a statistically significant difference between the staff and the public's rating, $W = 89, p = 0.0192$.

² A Wilcoxon Rank Sum test indicated a statistically significant difference between the staff and the public's rating, $W = 86.5, p = 0.00857$.

³ A Wilcoxon Rank Sum test indicated a statistically significant difference between the staff and the public's rating, $W = 104, p = 0.0448$.

The survey respondents also noted areas where the Lab and Lunch could be improved. Their constructive feedback and possible ways of addressing each issue are listed in Table 7.

Table 7. Feedback for improving Seeing the Blue Serengeti.

Finding	Suggested Change
A few visitors wanted to follow the research and learn additional information after the talk.	➤ Provide handouts, send an email, or include in the original post web links where people can go to find out more about the research presented.
Again, non-staff participants were less likely to find the talk as relevant as staff participants.	➤ Highlight the relevance of the research.
Many attendees found the noise, especially from visitors on the ramp, distracting.	➤ To mitigate the noise, perhaps we can close the doors at the bottom of the ramp but post a sign welcoming people to enter for the talk and for the Observatory exhibits. ⁺
There was nothing to drink.	➤ Perhaps provide some compostable cups and a few pitchers of water.
A few museum visitors did not seem sure if they were welcomed to attend. They stood at the entrance but never sat down and left before the talk's end.	➤ A sign at the entrance may help welcome and orient them.
There were not enough chairs, which may have led some interested visitors to stand and leave early.	➤ Although a final row of chairs was set up about 15 minutes into the talk, we may want to set out more chairs in the beginning.
A few non-staff attendees reported having trouble finding the venue. In fact, one person was directed along a path blocked by stanchions and ropes.	➤ Place more signs along the path to direct visitors to the Observatory.
One attendee did not know the talk was happening and only happened upon it.	➤ S/he suggested that we advertise the Lab and Lunch series more widely.
The public did not feel that they had an opportunity to contribute to the conversation as much as the staff did.	➤ Ask the emcee to give preference to questions from the public during the Q&A session.

⁺ Because of fire safety regulations, we could not close any of the doors.

Getting Intimate with a Body of Water

Again, the audiences were appreciative of the speakers' talk and thanked Ariel Rubissow Okamoto and Kathleen Wong for the opportunity to learn (more) about the Bay:

Excellent. Reminiscent of "Saving San Francisco Bay" on KQED

This was a fabulous event! Thank you so much for offering such a pleasant, engaging opportunity to learn about our Bay. Excellent!

Excellent, easily accessible talk. I learned a lot.

Figure 8 shows the survey responses.

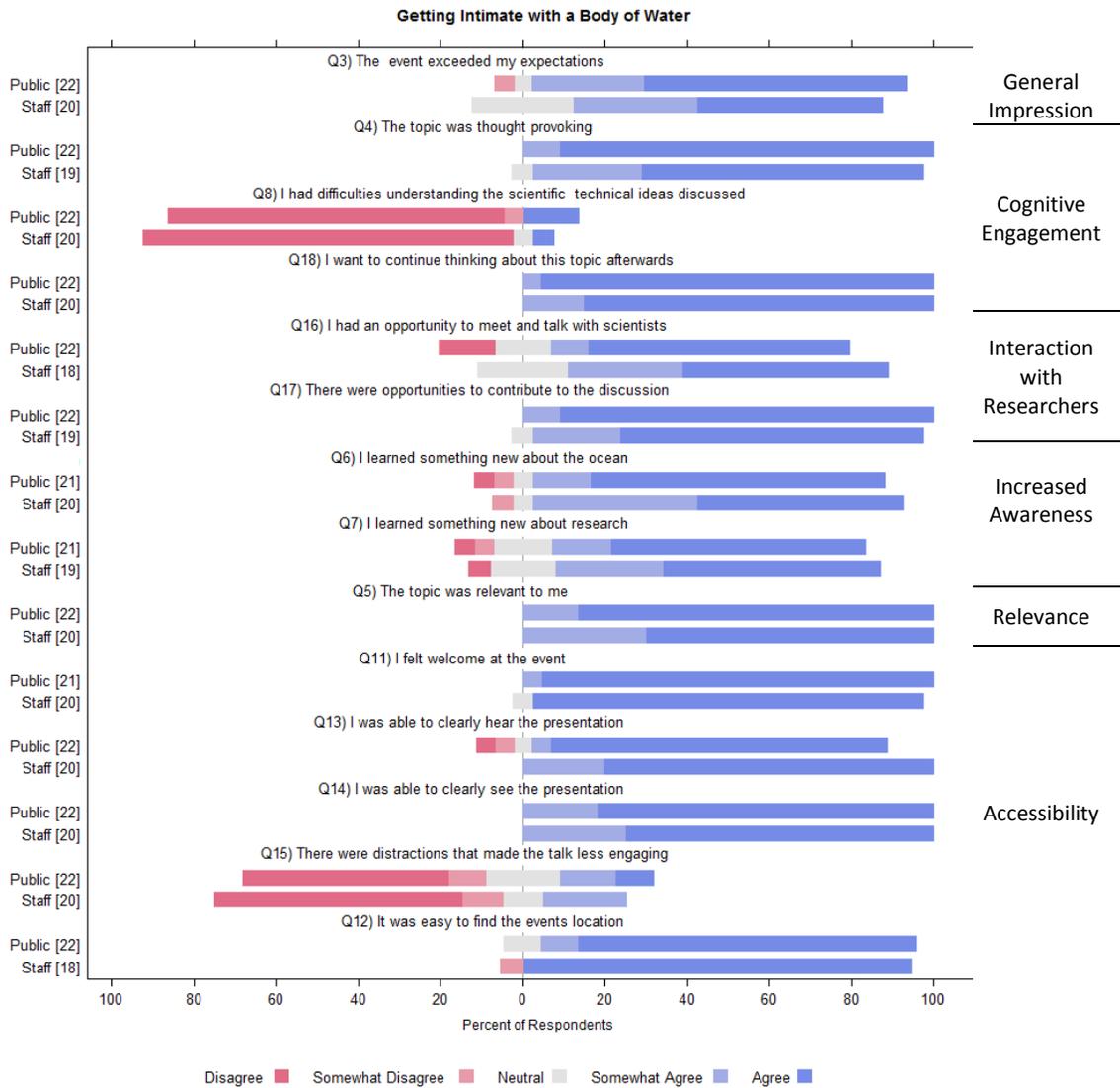


Figure 8. Attendees’ responses to survey questions for Getting Intimate with a Body of Water. The total number of respondents is noted in [].

Attendees identified issues that they thought should be addressed in the next Lab and Lunch. Their feedback is listed in Table 8 and was relayed to the series organizers.

Table 8. Feedback for improving *Getting Intimate with a Body of Water*.

Finding	Suggested Change
One attendee wondered about the connections between this program and the exhibits in the rest of the museum.	➤ Perhaps Lab and Lunches can make more references to our collection.
One attendee felt that it may have been difficult for the journalists to convey scientific research conducted by others.	➤ S/he suggested inviting the scientists to join the journalists to complement their reporting with first-hand accounts.
A few attendees complained about the noise from the museum floor, which distracted them from the talk.	➤ This is a recurring problem that we have not found a good solution to yet.
A few attendees felt more people would come if only they knew about the series.	➤ They recommended publicizing the event more broadly, perhaps in www.sfgate.com and sf.funcheap.com as well as inside the Exploratorium with more signs.

The Changing Plankton of San Francisco Bay

Overall, the audience for the fourth and final Lab and Lunch in this series found the talk on the plankton of San Francisco Bay engaging and relevant, and appreciated the opportunity to engage with researchers and to increase their awareness of the micro-organisms in the Bay:

*Great speaker who presented interesting research without using too many technical terms
That event was great! Thanks for putting it on. Will definitely return for more talks.
Very informative event as I definitely learned something new today*

Their survey responses are shown in Figure 9.

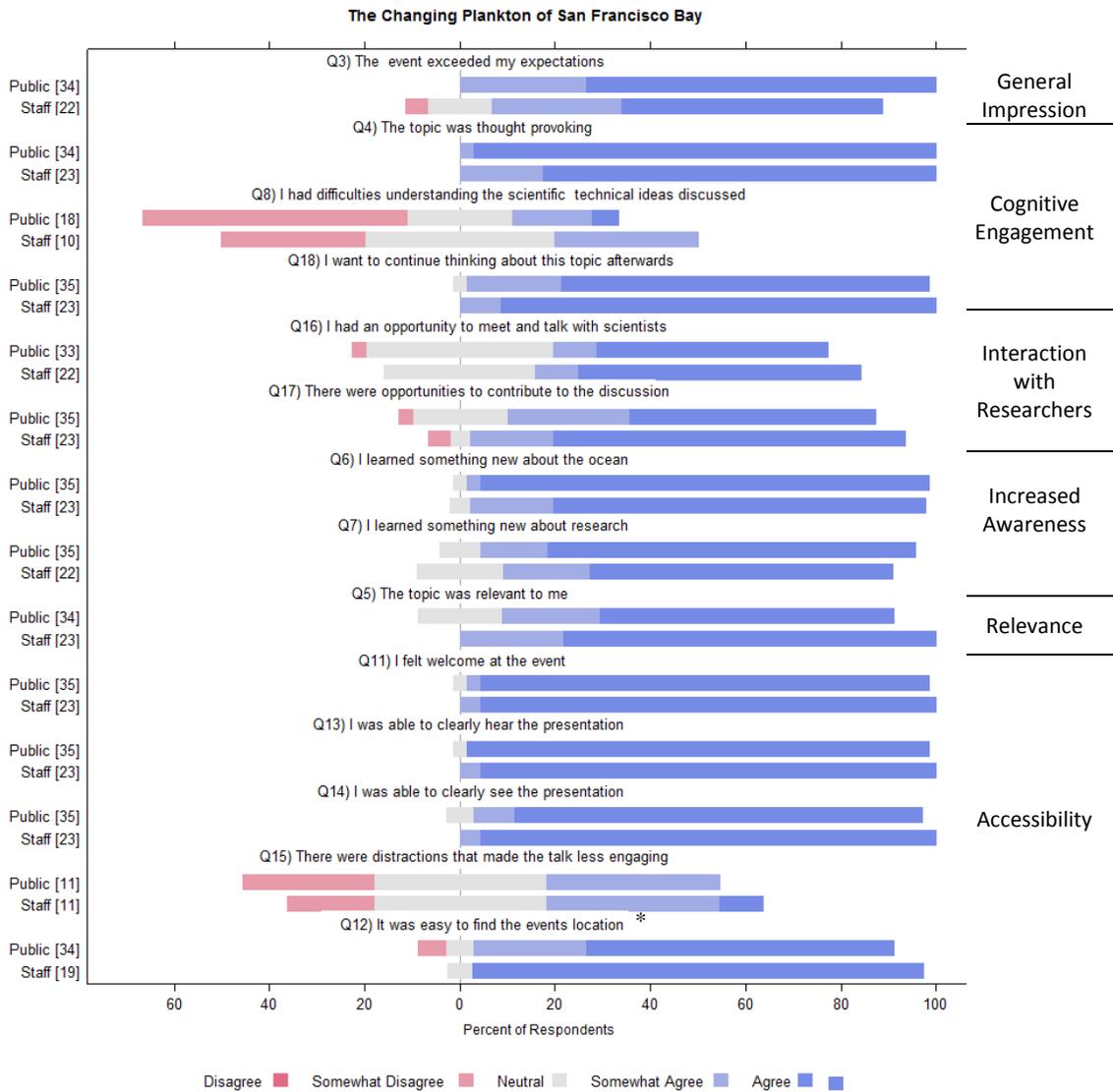


Figure 9. Attendees’ responses to survey questions for the Changing Plankton of San Francisco Bay. The total number of respondents is noted in [].

* A Wilcoxon Rank Sum test indicated a statistically significant difference between the staff and the public’s rating of how easy it was to find the venue, $W = 229, p = 0.0206$.

The respondents’ suggestions (Table 9) echo some of the feedback we received for the previous Lab and Lunch but with more comments asking for additional information about the research.

Table 9. Feedback for improving *Getting Intimate with a Body of Water*.

Finding	Suggested Change
One attendee was not sure what the research's limitations were.	➤ Spend more time describing the challenges of doing this research including the issues in methods and data analysis.
One respondent wanted a copy of the slides.	➤ Provide a URL with more information about the research described.
One attendee remarked that the talk presented only one point of view.	➤ For future talks, consider inviting a panel that can represent different takes (e.g., research, policy) on the same issue.
One participant was not sure how to answer the question, "What can we do?" S/he further went on to ask, "How does this work day to day? Is there anything we should/could do? What is the relevancy?"	➤ Consider spending more time addressing relevance.
A few attendees thought the venue was cold.	➤ (Re)Adjust the thermostat before the event.
A few respondents complained about the noise coming from other areas of building.	➤ We have not yet found an easy way of addressing the noise issue for the Observatory venue.
Lunch service was not as efficient as it could be.	➤ Consider setting up the lunch table closer to the entrance so that late-comers do not disturb the talk while getting lunch. ➤ Place the water in the corner opposite from plates, napkins, and utensils to expedite self-service.
The public, not surprisingly, found it more difficult than the staff to find the venue.	➤ Redesign the directions to the Observatory.
Interested parties may not know about the event.	➤ Better publicize the event.

The Lab and Lunch Series

Overall, the survey respondents found the Lab and Lunch series a cognitively engaging program, which increased their awareness of current research about our ocean. They rated the talks highly in providing them an opportunity to interact with scientists and found some relevance in the topics discussed. However, for two of the Lab and Lunch talks, the public participants did not find the topic as relevant to their lives as the staff, though their relevance ratings were still high. See Table 10.

Table 10. Relevance ratings from the public and the staff.

Lab and Lunch	Public		Staff		Wilcoxon Rank Sum Test	
	<i>n</i>	<i>M</i>	<i>n</i>	<i>M</i>	<i>W</i>	<i>p</i>
<i>Dynamic Waters</i>	17	4.176	19	4.737	106	0.0428*
<i>Seeing the Blue Serengeti</i>	18	4.105	16	4.688	89	0.0192*
<i>Getting Intimate with a Body of Water</i>	22	4.864	20	4.700	256	0.2022
<i>The Changing Plankton of San Francisco Bay</i>	34	4.441	23	4.783	311.5	0.1140

* $p < 0.05$.

The formative evaluation described here identified issues which we tried to address in the subsequent Lab and Lunch in this series. A set of Kruskal-Wallis tests was conducted to detect any differences among the four Lab and Lunch talks *for the public attendees*. The results are reported in Table 11. This comparison served to assess if we made successful improvements as the series progressed.

Table 11. Kruskal-Wallis test results for each survey item for the four Lab and Lunch talks. These tests were run for the responses we received from non-staff participants.

Survey Question	Kruskal-Wallis <i>chi-squared</i>	<i>df</i>	<i>p</i>
The event exceeded my expectations.	1.543	3	0.672
The topic was thought provoking.	3.168	3	0.367
I had difficulties understanding the scientific / technical ideas discussed.	20.616	3	0.000*
I want to continue thinking about this topic afterwards.	3.599	3	0.308
I had an opportunity to meet and talk with scientists.	0.735	3	0.865
There were opportunities to contribute to the discussion.	11.007	3	0.012*
I learned something new about the ocean.	5.835	3	0.120
I learned something new about research.	4.644	3	0.200
The topic was relevant to me.	12.414	3	0.006*
I felt welcome at the event.	8.501	3	0.037*
I was able to clearly hear the presentation.	9.045	3	0.029*
I was able to clearly see the presentation.	4.255	3	0.235
There were distractions that made the talk less engaging.	10.139	3	0.017*
It was easy to find the event's location.	9.245	2	0.010*

* $p < 0.05$.

Follow-up pairwise comparisons using Wilcoxon rank sum test with Holm correction were conducted for those survey items that showed a statistically significant difference among the four talks. These results are summarized in Table 12.

Table 12. Pairwise comparisons using Wilcoxon rank sum test with Holm correction. Only significant pairwise differences are shown here.

Survey Question	Pair with significant difference		p
	Talk with the higher mean	Talk with the lower mean	
I had difficulties understanding the scientific / technical ideas discussed.	<i>Changing Plankton</i> (M = 2.722) ⁺	<i>Blue Serengeti</i> (M = 1.632)	0.00216*
I had difficulties understanding the scientific / technical ideas discussed.	<i>Changing Plankton</i> (M = 2.722) ⁺	<i>Intimate with Water</i> (M = 1.591)	0.00032*
I had difficulties understanding the scientific / technical ideas discussed.	<i>Dynamic Waters</i> (M = 2.444) ⁺	<i>Intimate with Water</i> (M = 1.591)	0.0482*
There were opportunities to contribute to the discussion.	<i>Intimate with Water</i> (M = 4.909)	<i>Changing Plankton</i> (M = 4.743)	0.010*
There were opportunities to contribute to the discussion.	<i>Intimate with Water</i> (M = 4.909)	<i>Dynamic Waters</i> (M = 4.222)	0.018*
The topic was relevant to me	<i>Intimate with Water</i> (M = 4.864)	<i>Blue Serengeti</i> (M = 4.105)	0.0043*
The topic was relevant to me	<i>Intimate with Water</i> (M = 4.864)	<i>Dynamic Waters</i> (M = 4.176)	0.0252*
I was able to clearly hear the presentation.	<i>Changing Plankton</i> (M = 4.943)	<i>Blue Serengeti</i> (M = 4.550)	0.011*

* $p < 0.05$.

⁺ A higher number indicates more difficulties with the scientific / technical ideas.

The analysis was unable to detect a trend that showed improvements from one Lab and Lunch to the next. (The higher rating for better audio quality may be the one exception.) Instead, the findings seem to suggest that the content of the talk may be the reason behind the differences we found. For example, it should not be too surprising that the public had the least amount of difficult understanding the ideas described in *Getting Intimate with a Body of Water*, since the speakers have a long history of making research understandable and engaging to the public. Furthermore, the less familiar content, including physical oceanography (*Dynamic Waters*) and marine micro-organisms (*The Changing Plankton of San Francisco Bay*), may be a bit more difficult for the public to grasp compared to the more familiar charismatic macrofauna of sharks and whales, presented in *Seeing the Blue Serengeti*. This highlights the need to spend more time on fundamental principles that an expert knows but which may be new to the public.

We suspect that opportunities to contribute to the conversation and perceived relevance are also connected to familiarity. For example, it would be easier to contribute to the discussion if the topic is familiar and if the respondents have already encountered and pondered the phenomenon described in their

personal lives. This may be part of the reason why *Getting Intimate with a Body of Water* rated highly in providing the public a chance to contribute to the discussion and in relevance. Nonetheless, it is important to note that all four talks rated highly in these survey items. This provides some evidence that the Lab and Lunch series can be an effective way of sharing current (ocean) research with the public.

ACKNOWLEDGEMENTS

We would like to thank Claudia Schidlow for help with data collection for the first Lab and Lunch.

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APPENDIX A
Audience Survey

Please check the circle that best describes the extent you agree or disagree with each statement.

	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree
The event exceeded my expectations	<input type="radio"/>				
The topic was thought provoking.	<input type="radio"/>				
The topic was relevant to me.	<input type="radio"/>				
I learned something new about the ocean.	<input type="radio"/>				
I learned something new about research.	<input type="radio"/>				
I had difficulties understanding the scientific/ technical ideas discussed.	<input type="radio"/>				
I feel there are many things we as individuals can do to conserve the oceans.	<input type="radio"/>				
I trust the information presented.	<input type="radio"/>				
I felt welcome at the event.	<input type="radio"/>				
I was able to clearly hear the presentation.	<input type="radio"/>				
I was able to clearly see the presentation.	<input type="radio"/>				
There were distractions that made the talk less engaging.	<input type="radio"/>				
I had an opportunity to meet and talk with scientists.	<input type="radio"/>				
There were opportunities to contribute to the discussion.	<input type="radio"/>				
I want to continue thinking about this topic afterwards.	<input type="radio"/>				

Please tell us a little about yourself.

Gender (*check one*): Female Male

Age (*check one*): 8-12 13-17 18 - 25 26 - 45 46 – 65 65+

How often have you visited the ocean/coastline this past year? (*Check one*)

none once 2 or 3 times 4 to 9 times more than 9 times

Are you a(n) (*check all that apply*):

- Lab and Lunch attendee Exploratorium visitor
 Exploratorium staff /volunteer Exploratorium member
 Other_____

How did you hear about this event? (*Check all that apply*)

- Exploratorium email Word of mouth
 Signs inside the museum Other_____

Do you have any special interest or background that might have helped you understand or appreciate this topic?

Do you have any suggestions or thoughts about this event that you would like to share with us?

Thank you for your feedback!

APPENDIX B

ATTENDEES' INTERESTS AND BACKGROUND

We asked attendees if they have any special interest or background that might have helped them understand or appreciate the Lab and Lunch topic? People's affirmative responses fell into the following categories, as noted in Table 13.

Table 13. Survey respondents' answers to the question, "Do you have any special interest or background that might have helped you understand or appreciate this topic?"

<i>Dynamic Waters</i>	<i>Seeing the Blue Serengeti</i>	<i>Getting Intimate with a Body of Water</i>	<i>The Changing Plankton of San Francisco Bay</i>
They studied a related discipline in school.			
Physics	Ecology	Oceanography	Marine science
Marine biology	Evolutionary biology	Earth Sciences	Biology
Mechanical engineering	Conservation biology	Ecology	Marine biology
Marine biology	Oceanography		Environmental science
Oceanography	Marine biology		Science
Physics	Biology		Oceanography
Bioinformatics	Marine Bio		
They have an interest in a related topic.			
SF Bay ecology	Ecological issues	The Bay.	Estuary
Ocean	Oceans, technology, research methods	Conservation	Biology
Tides	Data visualization	Bay/wetlands and environmental issues	Coral reef conservation
Tidal effects on Sacramento River Delta	Marine Biology	Physical, biological and historical aspects of bay	Bay's ecosystem
	Ocean issues		The ocean and all the work from USGS
	Like to learn new things		Water quality
	Sustainable seafood and the preservation and growth of oceanic animals		Phytoplankton
			'Critters' in our waters
Their life experience helped them understand and appreciate the topic.			
Radio hobby	Partner is an oceanographer	Living in SF	Eat Dungeness crabs
Read about sailing/shipping		Read their book	
Love the ocean		Scuba diving and kayaking	
Boating experience			
Love the ocean, surfing, explore intertidal areas			
Attended talk about tides			

It relates to their profession

Does outreach at Romberg Tiburon Center	Written about science for the media.	Work with USGS in SF Bay	Work on exhibits and communication around ocean research.
Work on Lake Tahoe project at another museum	Worked on exhibits on this topic	Work as physician	Teach Environmental science
Written about this topic for the Observatory gallery	Worked at the Monterey Bay Aquarium	Work as engineer	Coordinate programs at the Aquarium of the Bay that deal with plankton, food webs
Work for the presenter	Work as Biologist	Work on wetland science, regulatory permitting	Work as Exploratorium explainer
Develop exhibits for Observatory Gallery	Work as aquatic biologist	Authored publications in methods, rare plants, and restoration	Work at aquarium of the bay and talk about plankton in our education programs
Work as Aquatic Biologist	Work as neuroscientist	Conducted historic landscape studies of salt ponds	Work at aquarium of the bay
	Work as biologist in the Living Systems Lab, Exploratorium	Taught San Francisco history	Teach about SF Bay
		Work on exhibits about the ocean	Make documentary films
		Work in water quality/nutrient monitoring and restoration in the bay	Work in biology
		Researched the biochemistry of Chesapeake Bay	Science publisher
		Work on and in SF Bay.	Work at an aquarium
			Work at Aquarium of the Bay teaching about plankton and bay ecology.
			Work in marine, environmental and conservation education
			Work for marine conservation organization in SF, the Coral Reef Alliance