White Paper: *Testing, Testing 1-2-3: A Rehearsal for the New Burke*

1. **Administrative Information**

- **Institution:** Burke Museum
- **Project Title:** *Testing, Testing 1-2-3: A Rehearsal for the New Burke*
- **Award Amount:** $25,000
- **Period of Performance:** August 01, 2016 – July 31, 2017
- **Program Director:** Julie K. Stein – Executive Director
- **Project Team:** Kate Fernandez – Director of Interpretation, Melissa Kennedy – Exhibit Coordinator, Alaina Fuld – Director of External Affairs, Christian Sidor – Curator of Vertebrate Paleontology and Associate Director of Research, Holly Barker – Curator of Oceanic and Asian Culture

2. **Project Summary**

In more than 130 years as the Washington State Museum, the Burke has built world-class collections, encompassing awe-inspiring treasures and a priceless record of our region over time. The collections, in turn, have supported groundbreaking research, award-winning exhibits, and respected educational programs for teachers and learners of all ages.

Yet too many of these resources—and indeed the museum itself—have largely been hidden from public view. Visitors have little opportunity to appreciate the Burke for what it is: a hub of productive research activity and the premiere museum of natural and cultural heritage in the greater Northwest.

The New Burke will connect students to research and collections in ways no museum has fully realized before. In a dramatic departure from the typical natural history museum model—where exhibits are on one side of the wall and collections and research are on the other—exhibit galleries will be thoughtfully integrated with visible collections, working labs and hands-on learning spaces designed to engage visitors in the dynamic discoveries that happen at the Burke every day. In the New Burke, 60% of the museum will be accessible or visible to visitors, compared to just 30% today.

In order to make this vision a reality, we broadly tested and evaluated concepts for the new visitor experience while simultaneously planning and constructing the new facility. As construction of the New Burke is underway, we created the multi-faceted interactive exhibit, *Testing, Testing 1-2-3*, to test the kinds of visitor experiences that we plan to offer in the New Burke every day.

Through evaluations we found that visitor satisfaction with these experiences was high, of the 34 visitors interviewed 91% of respondents identified that they would rate the exhibit experience a 7 or higher on a scale of 1-10. Visitors described the exhibit as interesting, educational, exciting and the inside out concept was viewed as special and unique. Seeing researchers in action appealed to visitors, and interactions with researchers were particularly prized. Interpretation enhanced visits and mitigated the absence of researchers. Satisfaction was equally high among families with children and teens.

3. **Process**

Testing, Testing 1-2-3 was specifically designed to test interpretive methods and internal capacity to turn the museum "inside-out." Experiences for visitors included visible collections, research labs, and

hands-on, participatory learning spaces that invite the public to see and engage with the objects and activities currently hidden behind the scenes.

The exhibit space was divided into three workrooms and an imaging lab where different departments including, archaeology, ethnology, mammalogy, malacology, ornithology, and paleontology conducted their work in the public view, for durations lasting six weeks to six months. Through glass windows and sliders, visitors could see into the workrooms as curators, collections managers, undergraduate and graduate students and volunteers engaged in their daily work that usually takes place behind the scenes. Highlights have included animal specimen prep, excavation of a T. rex skull and other fossils recently discovered in Montana, 3-D printing of fossils to smaller scale, cataloging of malacology specimens and packing cultural objects for the move to a new building.

Aletheia Wittman joined the Burke as Collections Interpreter in April 2017 to lead the development of a facilitated interpretation program aimed at connecting the visitor to the work happening behind the glass. The program engaged nearly 50 volunteers who participated in a minimum of 10 hours of training in preparation for working with visitors. Thus far, the volunteer interpretive corps have contributed over 290 hours working in the gallery.

This exhibit is being assessed through both formal and informal evaluation. We engaged MEM Consultants (independent museum evaluators), Burke staff and volunteers to measure the impact and effectiveness of the various elements of *Testing, Testing 1-2-3*. Staff and volunteers completed surveys about their experiences. Visitor experiences were evaluated through intercept interviews, visitor polling stations, timing and tracking visitors time in the gallery, and surveys. Project and evaluation results, detailed below, are key to the success of testing the inside out model.

Course corrections have been ongoing. For example, staff wrote what they were doing each day on white boards and made quick changes based on what evaluators heard from visitors, signage font size and specificity is being changed based on visitor requests. Visitors tried to open doors into staff areas and a sign was added to encourage them not to do so. In the new building design, door handles will only be on the inside of staff spaces visitors can see into.

Since opening, *Testing, Testing 1-2-3* has reached 19,612 visitors including record attendance the opening weekend of T. rex LIVE (where the T. rex skull debuted in the gallery) with more than 1,100 visitors. We expect to serve 30,000 visitors through the run of the exhibit.

In addition to IMLS' integral support, *Testing, Testing 1-2-3* was supported by 4Culture (the King County funding agency), the Boeing Company, the David B. Jones Foundation, the Hugh and Jane Ferguson Foundation, Microsoft, the Seattle Office of Arts and Culture and the Washington State Arts Commission.

4. Project Results

Testing, Testing 1-2-3 has been the testing ground to explore elements of our new institutional vision. Our findings are critical to reaching our goal to build a museum that is flexible, dynamic and responsive to community needs. With the evaluation findings detailed below, we can now confidently move forward and scale up our innovative interpretive plan into the New Burke.

We have learned and continue to learn so much from this project and process.

Key findings:

- Visitors are compelled by the active work that is taking place in the workrooms and interactions with researchers were particularly prized. Visitors were less likely to read labels.
- People come to the exhibit more than once and stay significantly longer than is typical in museums, with some attendees staying up to 5 hours in one visit.
- Visitors are responding positively and enthusiastically to their experiences of collections, research and daily discoveries, making it clear we are on the right track.
    - 91% of visitors gave a "would you recommend" score of at least 7 out of 10
    - Visitors described the exhibit as interesting, educational, exciting.
    - The inside out concept was viewed as special and unique.
- Facilitated interpretation enhanced visits and mitigated the absence of researchers
- Animal prep was highly engaging to most visitors, especially when the interpretation lead with a sensitivity to the emotional aspects of the work.
- Satisfaction was equally high among families with children and teens.

We are pleased to discover:

- Knocking on the windows, which was a primary concern, is not a chronic problem. Staff were surprised to find adults are much more likely to knock than kids.
- Visitors care about us, with Interpretive staff and volunteers reporting that some visitors are asking whether they like this new way of working.
- Staff really enjoy connecting with the public through demonstrating their work and working in this new way. They are finding that they can complete their work and interact with visitors.

5. Next Steps

In addition to many positive comments, visitors also requested changes that staff will implement for the remainder of the exhibit. Visitors wanted more interactions with researchers doing active work with collections and interpreters in the galleries. Signage will also be adjusted to anticipate their emerging questions, preferred font size and with information that helps adults explain what's happening to children.

Evaluation methods will continue throughout the exhibit run which closes in January 2018. These additional observations and exit interviews will increase our sample size and visitor reactions to different exhibit features. Two visitor focus groups will be convened to allow for deeper discussion. Evaluation findings will directly influence the design and interpretive plan for the new Burke and staff guidelines for teaching and learning from the public.

Results and best practices will be shared at local regional and national conferences. Staff are currently preparing a paper and session proposal in the hopes that we can present at the Western Museums Association (WMA) annual conference in 2018. Exhibit Coordinator Melissa Kennedy presented the *Testing, Testing 1-2-3* idea and goals at the 2017 WMA poster session. Findings were presented internally to staff at regular intervals via e-newsletters and at an all staff meeting in October 2017.

6. Recommendations

CREATING A TEST

While this project was created to test an interpretive approach for the New Burke, not all of our innovations are dependent on having a new building. This experimentation happened in the temporary exhibit gallery in our current building. It's possible to do this type of interpretation in a limited space not built as lab space. The test also does not need to last long to yield results. This exhibit which is taking place over about six months was incredibly productive, but also very labor intensive, requiring a minimum of two full time and one part time staff to develop, facilitate, and monitor the exhibit.

When designing an experiment to test your idea – break big problems into smaller ones so that you can solve for issues incrementally. This can begin very informally with conversations and grow to small scale installations, it does not need to exist in a scaled microcosm to be effective.

Be transparent in your process – visitors appreciate knowing you are testing new ideas and value having their feedback influence your decision making.

STAFF AND CURATOR BUY IN

This effort was endorsed from the top down. The exhibits team was empowered to propose changes and those decisions were supported and reinforced by leadership.

Testing, Testing 1-2-3 created a space built for experimentation that enabled staff to be nimble, making changes fairly easily when issues arose. We are learning from the process of doing, making time to reflect on what happened weekly, and documenting it in order to continually refine how we connect the work behind the glass with visitors' experiences. Empowering all staff to be a part of making changes to our methods of interpretation has led to adjustments based on observations and interactions rather than assumptions. Ideas that may have once been disregarded, were framed as "let's try it and see."

Build commitment to making institutional change by reaffirming the shared experience and knowledge gained. Create a strong institutional memory of what you have learned by continually sharing the knowledge with staff. Hold yourself and staff accountable to make use of your findings.

7. Resources

Websites

Testing, Testing 1-2-3 Webpage on Burke Museum Website

http://www.burkemuseum.org/exhibits/testing-testing-1-2-3

Appendices

Appendix A: Evaluation Report

Appendix B: Western Museums Association Poster exhibited at 2017 Conference

Appendix C: Testing, Testing 1-2-3 Internal Newsletters

Appendix D: Floor Plan

Appendix E: All Staff Presentation

Appendix A: Evaluation Report

THE BURKE MUSEUM

TESTING, TESTING 1-2-3

INITIAL EVALUATION REPORT

SEPTEMBER 2017

Prepared by MEMconsultants, LLC

MEMconsultants LLC

EVALUATION GOAL & GUIDING QUESTIONS

To gather data regarding the visitor experience in the piloted exhibit to inform exhibit design, interpretation approach and researcher role associated with the Inside Out exhibits.

- How did visitors experience and react to the exhibit in general and the opportunity to see what typically happens behind close doors specifically?
- What was most appealing to the visitors?
- Did the visitors feel invited to interact, engage or participate; find connections to real life; feel inspired?
- Was it an atypical museum experience?
- Did the facilitated experience make a difference?
- Does the experience vary for families with children, or vary based on presence of researchers and interpreters?

DATA SOURCES

63 gallery observations

34 exit interviews

451 in gallery iPad surveys (animal prep)

Gallery Observations focused on one randomly selected individual at a time and tracked visitor interactions with the exhibit features.

- 47 by MEM, 16 by Burke Collections Interpreter
- 54% observed were families with children

Exit Interviews were conducted by **MEM** consultants staff during 7 visits in July and August.

- 35% were families with children
- 38% were members; 29% were repeat visitors to the piloted exhibit
- 12% were first time Burke visitors while 88% had visited before

iPad Surveys were unstaffed and completed on a voluntary basis

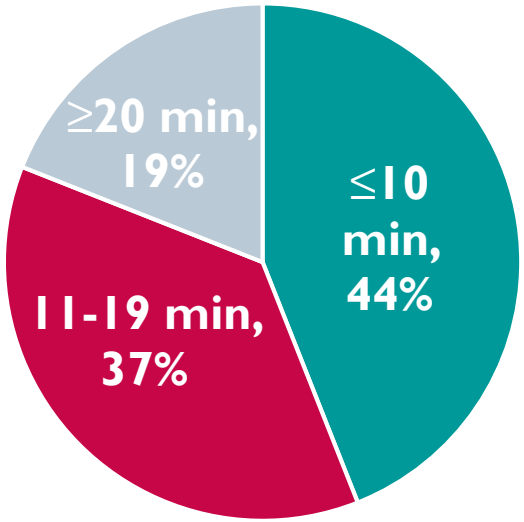
OVERVIEW OF FINDINGS & RECOMMENDATIONS

- **Visitor Behavior:** time spent in exhibits, workroom and exhibit feature popularity
- **Visitor Reactions:** satisfaction, quality of experience
- **Interactions with Staff:** with and without researchers, with interpreters
- **Qualitative Feedback:** atypical experience, seeing behind closed doors, inspiring action in real life
- **Evaluation Questions:** animal prep, families with children
- **Opportunities to Improve:** less popular exhibit features, visitor recommendations

TIME SPENT IN EXHIBIT

13 minutes = average time spent in exhibit

44% of visitors observed spent **10 minutes or less** in the exhibit



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WORKROOM POPULARITY

Observers did not track the amount of time spent looking into each of the rooms.

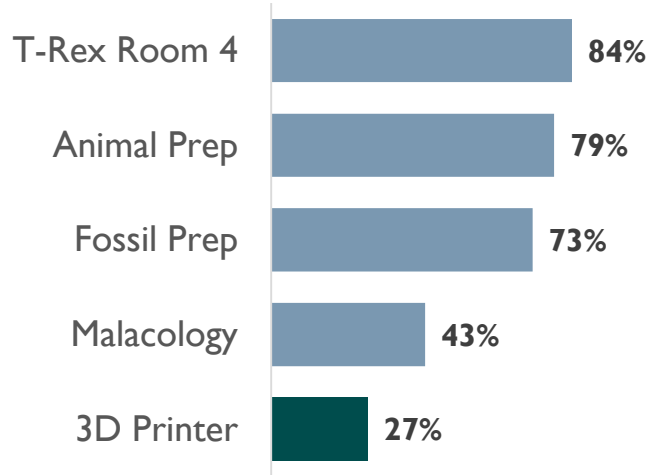
Observer notes suggest that typically the visitor looked into Malacology (Room 1) briefly as they entered the gallery, then moved further into the exhibit and spent more time looking into other rooms.

More than half of **visitors looked into** each workroom

Visitor observation into **Malacology** was often very brief

WORKROOM POPULARITY AND RESEARCHER PRESENCE

There is some correlation between the workroom popularity and the frequency with which they were **occupied by researchers**.



More than half of **visitors looked into** each workroom.

The **3D printer** was popular despite infrequent researcher presence.

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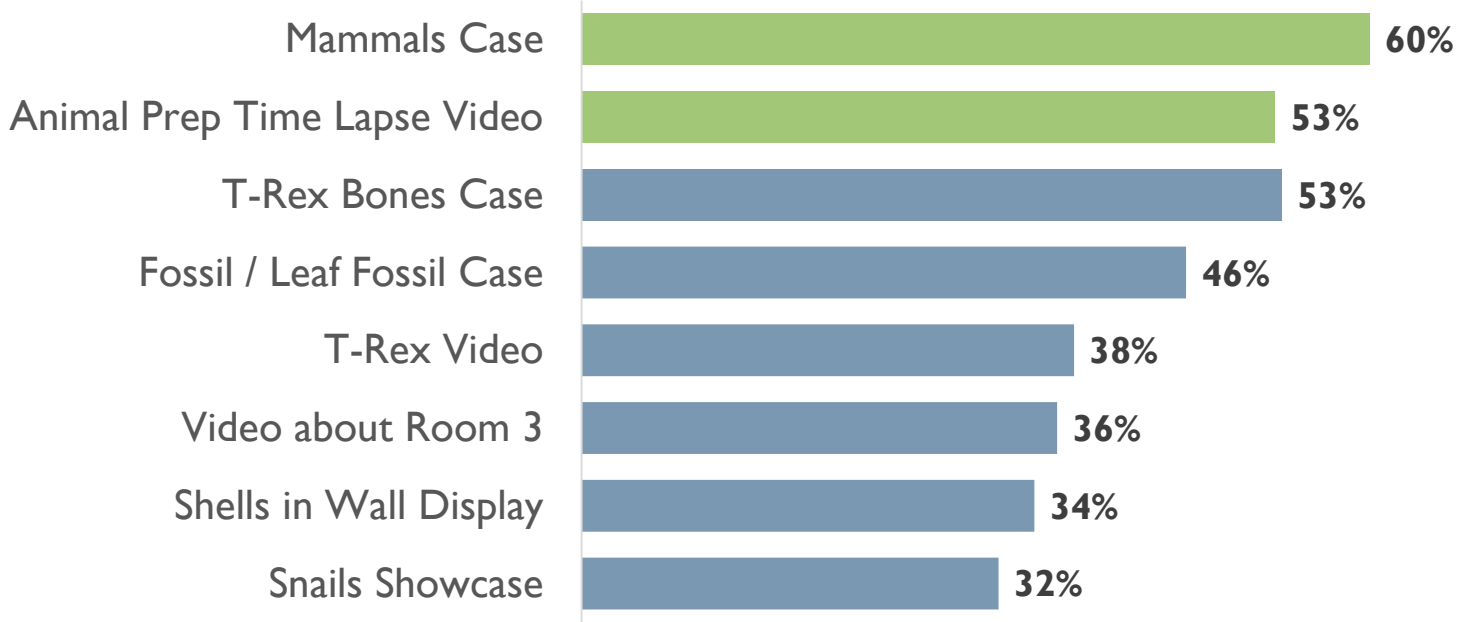
POPULAR EXHIBIT FEATURES

Cases displaying artifacts and **videos** with more information **engage** a high percentage of **visitors**.

The mammals case and time lapse video of animal prep, located in the same corner, were among the most **popular** exhibit features.

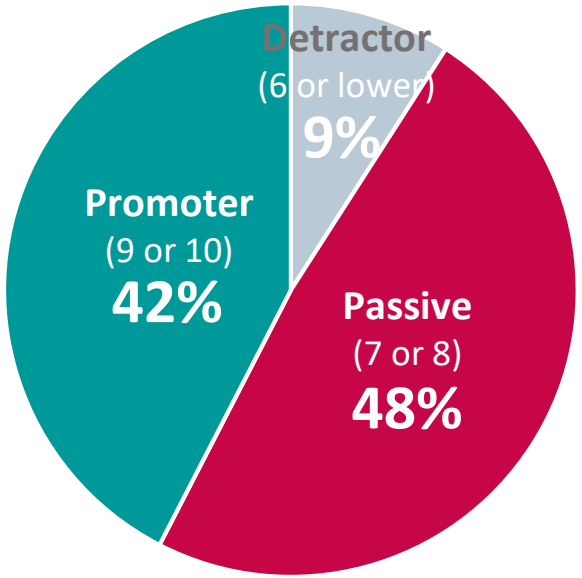


VISITOR SATISFACTION

Interviewed visitors were asked to indicate how likely they were to recommend the exhibit to a friend, on a 0-10 scale.

I would recommend this exhibit in a heartbeat.

91% of visitors gave a positive Would You Recommend rating of at least 7 out of 10



VISITOR EXPERIENCE

Visitors typically described the exhibits as **interesting, exciting**, and **educational**.

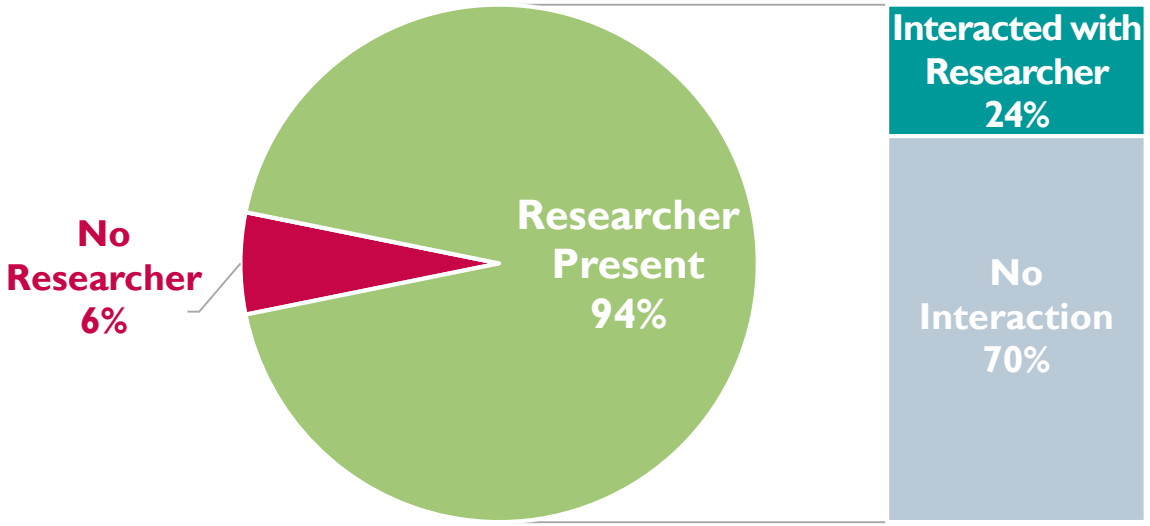
- *Very inspired!*
- *Informative, educational. I have been to a lot of museums and I'm impressed.*
- *Wonderful, interesting, educational for all ages. It fosters possibilities, especially for kids as possible careers.*
- *This is so exciting. The concept of bringing the inside out is such a great thing. I love it.*
- *Overall, it is a great concept. It was exciting to watch them work.*

INTERACTIONS WITH RESEARCHERS

Interactions were defined as any verbal or non-verbal communication between the researcher and visitor. These ranged from small, nonverbal gestures such as a wave or point to something, to larger interactions such as inviting a visitor into the room or stepping out of the room to talk.

At least one **researcher** was **present** for **94%** of observations.

Only **24%** of visitors observed **interacted with a researcher**.



INTERACTIONS WITH RESEARCHERS

Visitors feel **special** and **excited** when they get to interact directly with researchers.

- *The researcher gal working on the fossils came out of the room and talked with us. She was so generous with her knowledge, she made my day!*
- *It's like being part of a lab without interrupting their work.*
- *I got to go inside the room and that was exciting! I felt special to get to see the dinosaur bones.*
- *When they [our kids] get to interact with the researchers they get really excited, they appreciate it more.*

INTERACTIONS WITH RESEARCHERS

Visitors also expressed **concern about disrupting** the researchers and their work.

- *We talked to a researcher and got to learn more technical aspects about the printer. It was great to get more information on how it works. I hope we weren't disrupting their work flow.*
- *I like being able to talk to people who are working on things, even though I know it is disruptive to their process.*
- *Engaging, interesting, very welcoming: although I am not sure what it is like for the scientist.*
- *Aren't they working? I didn't even know I could [interact with them]. Maybe there should be a sign telling us what is appropriate?*
- *I imagine it might be difficult for them to get used to being stared at all the time, but for us it was really cool.*

VISITOR BEHAVIOR WHEN NO RESEARCHERS ARE PRESENT

When no researchers were in rooms, visitors spent an average of **8 minutes** in the exhibit.*

When 3 or 4 rooms were occupied by researchers, visitors spent and average of **15 minutes** in the exhibit.

* Note the very small sample size of only 4 observations with no researchers.

EXHIBIT WITHOUT RESEARCHERS

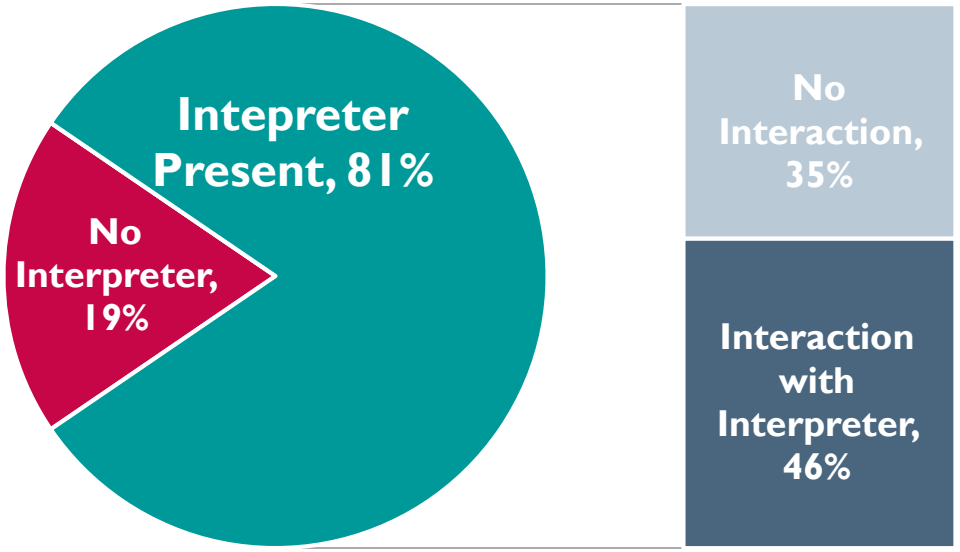
Interpreters enhance the visitor experience when researchers are not present.

- *I enjoy looking at people doing things, so the empty areas are not that interesting.*
- *The docent on site made the empty rooms interesting.*
- *[The interpreters] really enhanced the experience and explained things… especially because no one is in the room so it was hard to understand the purpose.*
- *The Malacology Room without a person was not interesting to me. At least have someone by each room to explain what is happening - like 1 person either inside or manning each room.*
- *Have more researchers and interpreters out on the floor so this isn't just static.*
- *There should be more people in the labs.*

INTERACTIONS WITH INTERPRETERS

Interpreters were present **81%** of the time observed.

About half (46%) of the visitors **interacted with an interpreter**.



INTERACTIONS WITH INTERPRETERS

Visitors described how the **interaction** with interpreters **improved their experience.**

- *The staff answered all of my questions and our conversation provoked thought.*
- *They helped make it more interesting and better understand what is going on. Like the 3D printing - it didn't make any sense until one of the interpreters explained it to me.*
- *They gave great context.*
- *The docent [interpreter] answered a lot of my questions: they really need someone there. He had to explain the voting thing.*

INTERACTIONS WITH INTERPRETERS

Some visitors **desire more interpreter interaction**.

- *The staff was too busy to talk with us.*
- *It would have been better if there was someone to talk about it with, even if they are not actually working on it but can explain about it.*
- *Also, we'd recommend more people to explain things. We loved that!*

TRANSPARENCY, SEEING BEHIND CLOSED DOORS

Some visitors **appreciate seeing scientists** working.

- *Being able to see people work is fabulous! It is "seeing science in action."*
- *This is way better than what it has been. With a person there, it becomes engaging and flexible. It does slow down the researchers, but the public needs to get engaged in the world. The information can't be locked up with the scientists.*
- *I think going deeper and seeing what the scientists are doing will help make the Burke work better .*

TRANSPARENCY, SEEING BEHIND CLOSED DOORS

Some visitors were **entertained** by seeing what usually happens behind closed doors.

- *I really liked seeing what is being done - it makes it feel more alive. I liked the handwritten signs, its very informative. And then having staff add to that was great.*
- *Really enjoyed it! We liked seeing people working. As we walked in my son said, "And here we can see humans working in their natural environment."*
- *Nice seeing researcher there actually working on it. It was kind of like a zoo--only for people. It's fun!*

ATYPICAL MUSEUM EXPERIENCE

Visitors describe the inside out exhibit concept as **unique**.

- *It really exceeded my expectations. I didn't know what to expect when the front desk person said "a behind the scenes look at the Burke." I didn't know there would be live people working in there actually in action.*
- *Interesting. It is very "behind the scenes," unlike a stand-still display.*
- *It is interesting to wander around and look at things. I've been to a few museums in the area and I have never seen this setup before.*
- *I liked it. It is special to be able to see what is behind the scenes.*
- *Usually when you think of a museum, you think of looking at stuff on the walls or in the glass, but this is so different. Really interactive getting to see what goes on behind closed doors is great.*

CONNECTIONS TO REAL LIFE, INSPIRATION

Two interviews resulted in anecdotes that show how the exhibit can ***inspire visitors to take action*** *in their own life.*

- A teenaged boy excitedly described making his own time-lapse video of the 3D printer and the animal prep researcher
- A father spoke about his desire to go fossil hunting with his wife and two boys after having a conversation with the T-Rex room researcher

ANIMAL PREP

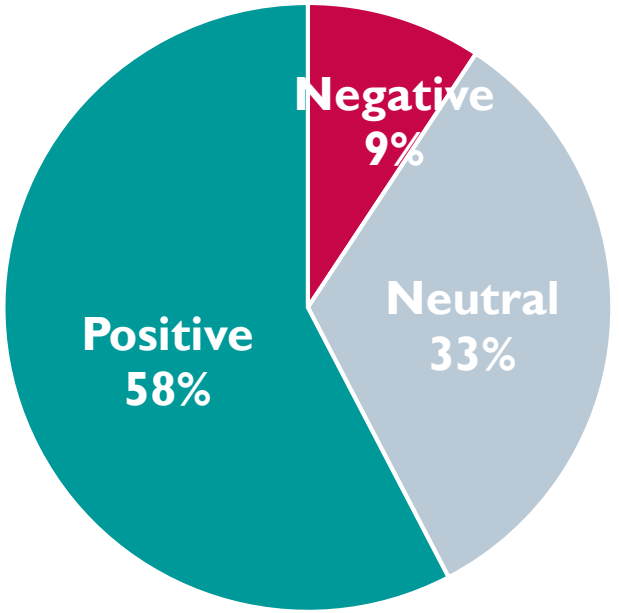
Evaluators paid special attention to visitor reactions to animal prep.

Visitor reactions varied.

- *I didn't see the animal prep warning sign because I came from the other side so I was quiet startled. It is great to have but there needs to be more visible warnings. I also want more information on where the animals come from.*
- *There is no need to have a sign about the animal prep. It makes it seem like there is a problem or something you might be offended by but science is science and its serious for people to understand that. Science is a process and we should show that.*

ANIMAL PREP

57% of visitors had a **positive** reaction to the animal prep. Only **9%** had a **negative** reaction.



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ANIMAL PREP

When the animal prep researcher was working, **69%** of observed visitors chose to linger or **intentionally watch** the prep process.

Many family members brought this activity to the attention of their child.

- *I love science, it's kind of my thing, so I just love all this, it didn't bother me. It was fun seeing the guy, he's pulling out guts and waving to me (laughs). I've never seen an exhibit like this before!*
- *I know it's just a part of science. I didn't feel weird about it.*
- *It is engaging for children. My daughter liked the animal prep. The time lapse video gave sense of progress, especially with younger kids. It is side by side with the researcher which is great.*
- *[My] Kids were interested and slightly grossed out by the bird guts coming out on time lapse video, but not upset.*

FAMILIES WITH CHILDREN

Evaluators sought feedback from families with children.

Adults with children provided almost uniformly **positive feedback**.

Families with children, like those without, spent an average of 13 minutes in the exhibit.

- *I'm surprised at how interested my children were! All the stuff--the tables where they label the bones--they wanted to participate in all of that. I think the exhibit really arouses their curiosity!*
- *It is interesting [to my children]. There are things to do, like the table activities, for my kids which I appreciate.*
- *Our kids like museums and my son loved the 3D printing. I think its cool for my kids to see the possible careers of working in this field or at a museum.*
- *We had to kind of pull my son away whereas last time he was ready to move on to the next thing.*

FAMILIES WITH CHILDREN

Some visitors would like to **return with** the **children** in their lives.

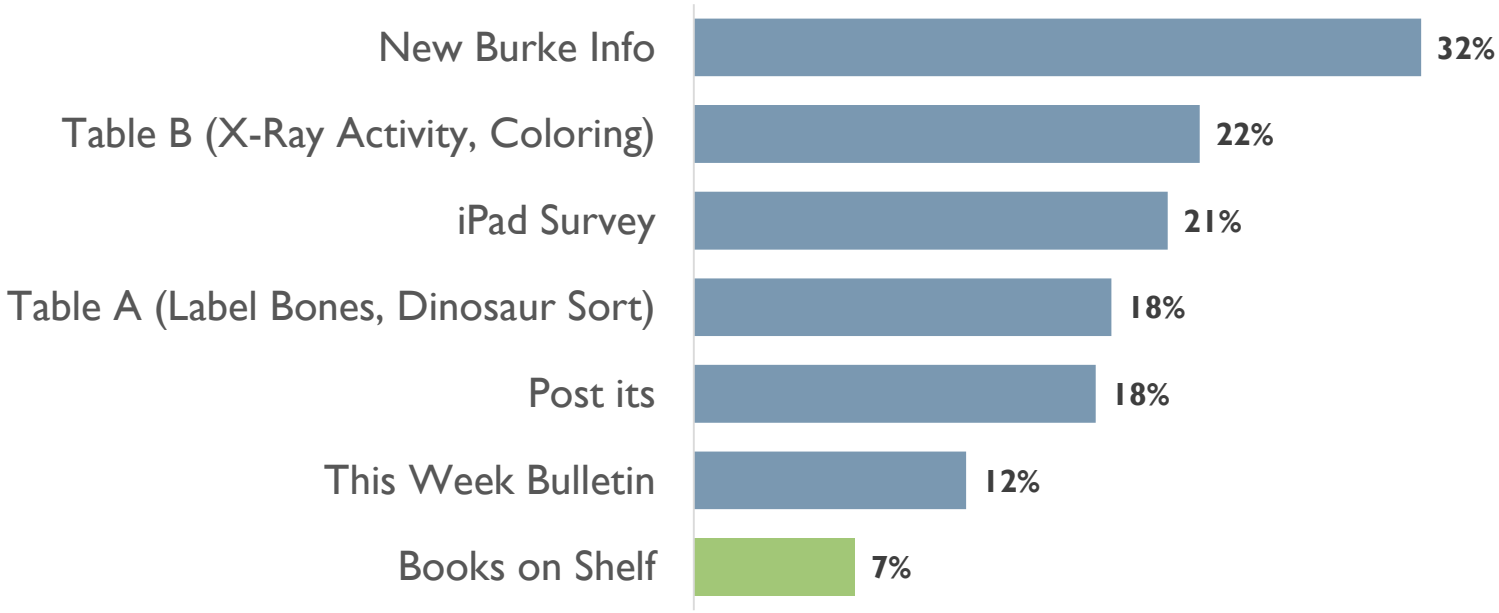
- *This is fascinating. I learned a lot. I want to bring my 5 grandchildren here, I think the 3 year old and up would love it. To get to see people doing things - like what do the real things from their comic books look like? This is history and evolution.*
- *It was fascinating and interesting. We both worked in education and can see how relevant this would be for children. Most museums just have displays and now we get to see how things develop to be ready to display.*

LESS POPULAR EXHIBIT FEATURES

While all exhibit features engaged at least some visitors, some were less popular.

The table activities and books on shelf were typically **utilized by families with children**.

Only 7% of visitors looked at the **books on the shelf**.



REACTIONS TO MALACOLOGY ROOM AFFIRMS NEED FOR DESIGN INTERVENTION AND INTERPRETATION

A number of visitors described Room 1 (Malacology) as the least interesting.

This aligns with hypothesis that reader rails and other design interventions support visitor engagement

- *Make room # 1 more lively – add some visual stimulation, like an image of the shell in its natural habitat like the ocean. Everyone was on their computers and I can't see what's happening.*
- *Room #1 has no interactive display so its hard to engage with, especially with children.*
- *Room #1 seems big for not much going on..*

VISITORS CRAVE MORE DETAILS

A number of visitors asked for **more specific information**.

One noted they needed this info **to explain** things **to their child**.

- *I want more explanations of what is happening in the labs and examples of work from different stages. I want more detail. Its fine for kids but we have a deeper interest. Give me more information. Where are the specimen from? What era?*
- *I think it could use more signage. We weren't sure what the animal prep guy was doing so I wasn't sure how to explain that to my son.*
- *I'd like to see more info about what's going on behind the glass. What is it and where did it come from more front and center (I had to hunt for it.) Example: I didn't know the bone in Room 3 is from Montana.*
- *I really loved the feather in the condor but I wanted more information - how did it get here? Where did it come from? Did it die?*

VISITORS NEED CLEARER SIGNAGE

A number of visitors commented on **confusing** or **hard to read** signage.

- *As an adult, the signs are too low and can't see them. I can't read it. Bifocals makes it hard. I know we want kids to be able to read, but we want to as well.*
- *I couldn't read things well. I have old eyes and there isn't a lot of contrast between the words and the background.*
- *I wish the bones [being 3D printed] were individually labeled. We totally missed the screen above that shows what they are.*

VISITORS WANT CULTURAL EXHIBITS, TOO

Some visitors want a **balance** of exhibits to include **natural history** and **cultural collections**.

- *I am a little disappointed. I wanted to see more cultural collections. Workrooms for anthropological collections would be interesting.*
- *My main interest in the Burke is the collection of Native American art & artifacts. Except for one blanket, it is all natural history. There is no culture. I am hoping the new museum will have more balance.*
- *I wanted equal weight to the cultural elements and make that accessible.*

SUMMARY OF SUCCESSES

- Visitor satisfaction is high; visitors described the exhibit as interesting, educational, exciting
- The inside out concept was viewed as special and unique
- Seeing researchers in action appealed to visitors, and interactions with researchers were particularly prized
- Interpretation enhanced visits and mitigated the absence of researchers
- Animal prep was highly engaging to most visitors
- Satisfaction was equally high among families with children and teens

OPPORTUNITIES FOR IMPROVEMENT

Visitors would appreciate:

- More interactions with researchers and interpreters
- Action to watch behind the glass (similar to that of 3D printer or animal prep)
- Design interventions and interpretation to support visitor engagement with every room
- Balance of cultural and natural history exhibits
- Signage that anticipates their emerging questions and preferred font size

INHERENT TENSIONS

- Visitor appreciation of viewing science in action vs. need to not interrupt the researchers or treat them like zoo animals
- Negative reactions to animal prep among a minority vs. strong positive reactions among a preponderance of visitors
- Activities that appeal to families with children but are less popular with most visitors

NEXT STEPS

Sept. – Nov. Data Collection

- Additional observations and exit interviews to increase sample size and explore reactions to different exhibit features
- Two visitor focus groups to allow for deeper discussion

- What unanswered questions or new questions would you like explored in the next phase of data collection?
- What changes to observation data collection or exit interviews would you request?
- What questions or topics would you like explored via focus group?

Appendix B: Western Museums Association Poster exhibited at 2017 Conference

TESTING, TESTING 1-2-3

setting the stage for institutional change

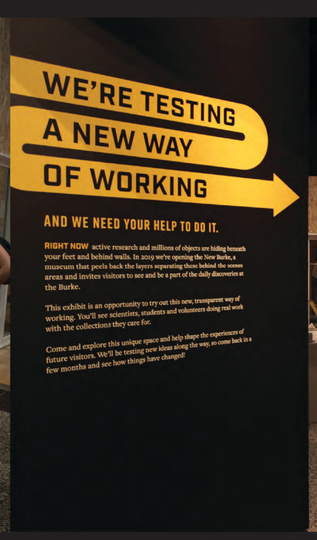
THE NEED FOR CHANGE

The Burke Museum has committed to a radical shift in how we work and interact with the public through the New Burke museum building project. In the New Burke, visible research labs and collection storage are integrated with exhibit spaces, breaking down traditional museum barriers. To do this successfully, we need to unite staff around a major institutional change that hinges on a new way of working in public and with the public.

DEVELOPING A PATH TOWARDS CHANGE

- FOCUS ON AREAS OF MOST CONCERN + MOST UNKNOWNS
- CREATE A SAFE PLACE TO TRY (AND FAIL)
- INVITE STAFF INTO PROCESS IN A STRUCTURED WAY
- BE ABLE TO SPEAK FROM EXPERIENCE, NOT ASSUMPTION
- IDENTIFY STAFFING NEEDS + CAPACITY

THE FINAL IDEA: CREATE A TEMPORARY EXHIBIT



test, refine + gain confidence // foster ownership + unity // strengthen communication + relationships

EXECUTION

PHYSICAL DESIGN

- Leveraged material choices, colors, and graphics to inspire engagement + enjoyment of testing experience
- Prioritized what to iterate quickly, and planned in-house solutions to fabricate new versions (ex: printing most labels in house)

FEEDBACK

- Built multiple ways to capture and record feedback
- Data collection strategies targeted both conversational/anecdotal (qualitative) and written (quantitative) feedback
- Tools included weekly standing huddles, where staff provided real-time input

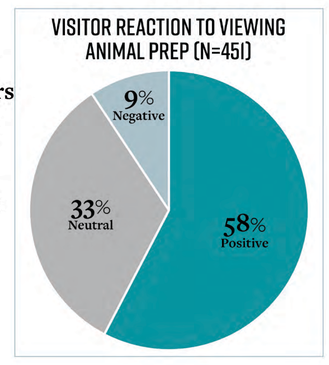
COMMUNICATION & TRANSPARENCY

- Up front with visitors and staff that this is a test—wrote this into the intro panel and throughout all forms of communication
- Reported back internally throughout process, including the successes AND failures

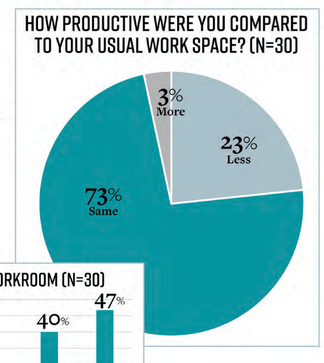
OUTCOMES

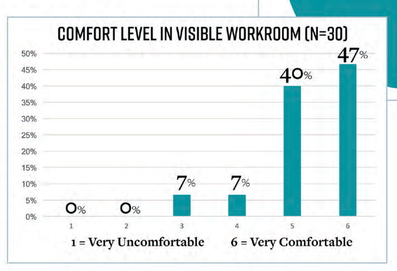
YOUR IMAGINATION IS USUALLY MUCH WORSE THAN REALITY

Staff were extremely concerned how visitors might react to seeing live animal prep. Polling revealed that many visitors found it fascinating.



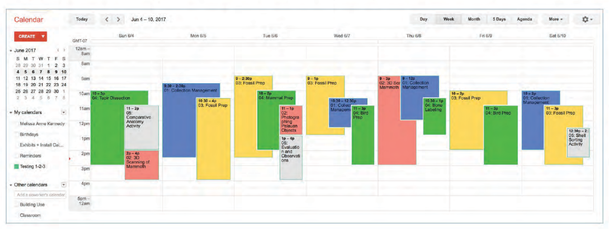
Staff anticipated feeling uncomfortable and unable to do work while visible to the public. Self-reported feedback showed this wasn't the case.





PRACTICING PLANNED CHANGES HELPED MOVE CONVERSATIONS FROM "WHAT-IF" TO DISCUSSING SOLUTIONS

Departments were able to try out strategies to populate workspaces on a new 7 day schedule. Testing a shared calendar system helped coordination cross-departmentally, and record how workrooms were staffed



SMALL COURSE CORRECTIONS HEADED OFF MORE COSTLY OR FRUSTRATING ADJUSTMENTS IN THE FUTURE

Staff quickly realized that some visitors were unsure of what to do when they saw visible labs, and tried to open lab doors to come inside the workrooms.

After adding temporary signage to the doors in our test exhibit, we worked with our contractors to remove external lab door handles in the new building to avoid repeating this confusion.

PLUS!

- We solved problems we weren't even aware of—like revising and clarifying internal security protocols for a new, visible work environment.
- Our visitors are even more excited about the new museum, and their reactions to the test exhibit are encouraging and motivating.

LESSONS

1. Empower staff to be part of change—not a victim to it— to alleviate fear of the unknown.
2. Define your problem and stick within that parameter.
3. Build consensus and commitment to change through shared experiences and new knowledge.
4. Celebrate (and don't overlook) small milestones along the way.
5. Create a strong institutional memory of what you learned by sharing important information in impactful way with staff.
6. Break up big problems into small ones and solve incrementally.
7. Hold yourselves and staff accountable to make use of your findings.

MELISSA KENNEDY + EXHIBITS + BURKE MUSEUM OF NATURAL HISTORY AND CULTURE + SEATTLE, WA

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Appendix C: Testing, Testing 1-2-3 Internal Newsletters

July 2017: What's happening

Here are some recent highlights of what's happening:

- **Herpetology** – Volunteer Tony Scigliano joined preparators in the space to do specimen identification of garter snakes. This work is done by counting the scales on the jaws of the snakes.

- **Ornithology** – Cooper French, a UW student in Curator John Klicka's lab, created several bird prep time-lapse videos that are now running on a monitor in the lab space as a compliment to active collection work. We'll share this video, along with what we've learned from visitor reactions to animal prep, in a Burke Blog article in early August.

- **Malacology** – Collections Manager Melissa Frey and volunteers are continuing to catalogue the malacology collection. So far, she and her team have processed more than 1,700 specimen lots. They've also experimented with posting questions for visitors to answer and learn from even if they don't have their door open to interact at the moment.

Cluster of Muricid snail eggs embedded with adult snail shells.

- **3D Printing a Mammoth** – The UW engineering students built a giant 3D printer that they are using to print portions of the Columbian Mammoth skeleton discovered near Richland, Washington. They've calibrated the machine and estimate a large bone—such as the femur—could take up to 150 hours to complete.
- **Mammalogy** – Collections Manager Jeff Bradley and volunteers are busy cataloguing small mammals from Mt. St. Helens and labeling marine mammal bones. This is the last week to check out their work.
- **Paleontology** – The team is still working hard at cleaning the massive spine of a thescelosaur and the fossilized femur of a duck-billed dinosaur—both discovered in Montana. Volunteers are busy looking for microfossils using a microscope that is being projected on a monitor in the gallery space.
- **"Birds of a Feather" activity** – There's a new table activity in *Testing, Testing 1-2-3* where visitors can match bird feathers to the bird it came from.

What we're learning

A few highlights about what we're learning so far:

- We've been polling visitors to indicate their favorite label on the reader rails outside of two workrooms. After controlling for messy response data and switching the order of the labels, we've found that typically the label closest to the token container receives the most votes. This pattern suggests that people tend to read less and are more compelled by the active working taking place.
- We're documenting the whiteboards and informal signage that collections are creating so we can better understand the variety of ways we can communicate our work as it's happening.
- We just tallied the results of our first iPad poll on visitor familiarity with scientific terms. There were 323 responses. As you can see in the graph below, "fossils" is the most familiar term and "biodiversity" is the least familiar. These results, and results from the other surveys, will be helpful for us as we develop interpretation for the New Burke.

August 2017: What's happening

***T. rex* LIVE**

We put the massive *T. rex* skull on display in a *Testing, Testing 1-2-3* workroom so the public can watch as Burke paleontologists and volunteers prepare it.

- **Something BIG is coming** – Prior to opening *T. rex* LIVE, the exhibits team papered the windows of the workroom while preparing the space for fossil preparation. The paper featured the artwork of Jed Dunkerley and the message that "Something BIG is coming August 12" to help build anticipation. Membership and visitor services used the opportunity to sell 11 memberships in advance of the opening.

- **Building buzz** – Communications built anticipation for *T. rex* LIVE by creating and sharing videos about the *T. rex* discovery and the custom T. rex "rotisserie rack" in addition to other marketing efforts. The two videos reached more than 150,000 people just on the Burke's Facebook page in the first week that they were published. We also hosted a press conference (it was broadcast live) which helped generate more than 65 news stories within a week! Most recently, the *T. rex* (and Bruce!) appeared in this Evening Magazine story.

- **Members' Dinos & Donuts** – Membership kicked the opening weekend off with Members' Dinos & Donuts with *T. rex* event at 9 am featuring remarks from vertebrate paleontology curator Greg Wilson (and a *T. rex* costume appearance, of course!).

- **Record attendance** – The opening weekend of *T. rex* LIVE brought more than 1,100 people to the museum—a record* amount in recent years (*not including family day event attendance).
- **Timed talks with preparators** – We publicized timed talks with preparators during the opening weekend of *T. rex* LIVE (and a few other weekends so far) so visitors can get *T. rex* updates from those who know the project best. Bruce, Prim, Gary and Ron have all stepped out to share updates on how prep is going and answer questions from visitors

about their work. Visitors are really happy to get face-time with anyone from "behind the glass" but sometimes don't even know where to start with their questions! Anything and everything shared by collections representatives has been warmly received by curious visitors.

What (else) is happening

Here are some recent highlights of what's happening (in addition to *T. rex*):

- **Facebook Live** – The communications team partnered with collections manager Meredith Rivin to do a Facebook Live video where she eloquently walked viewers through the 3D mammoth printing project. It was a great first chance for us to test out Facebook Live and we learned a lot during the process.

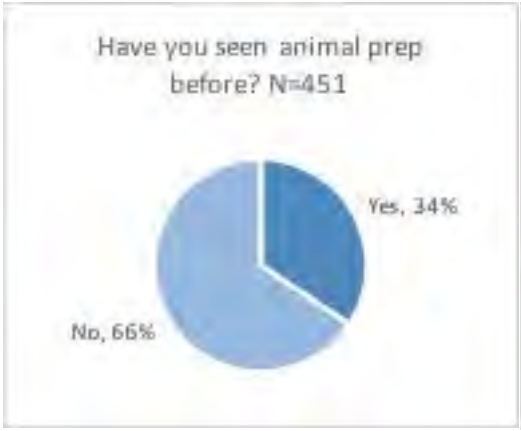
- **Sorting displays** – Paleobotany and microfossil sorting displays have a new focus on collection management. We created new permanent signage outside of the glass based on our conversations with the microfossil sorting team and visitors.

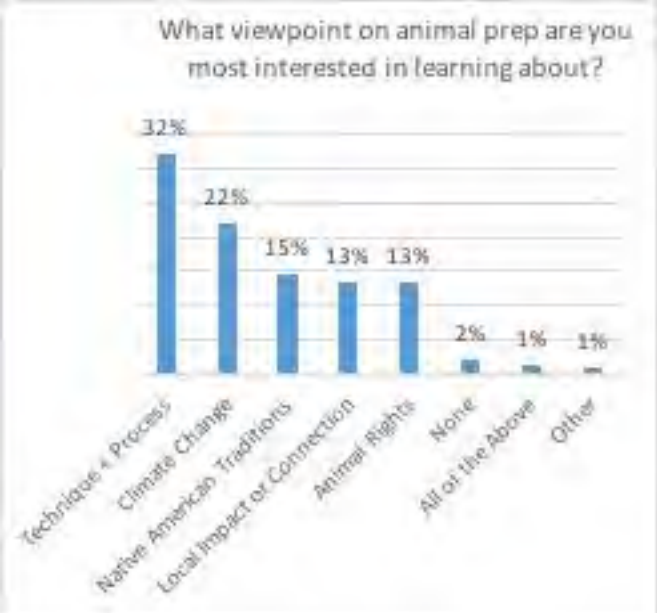
- **Is this a dinosaur?** – There's a new "Dino/Not Dino?" sorting activity in the activity space.

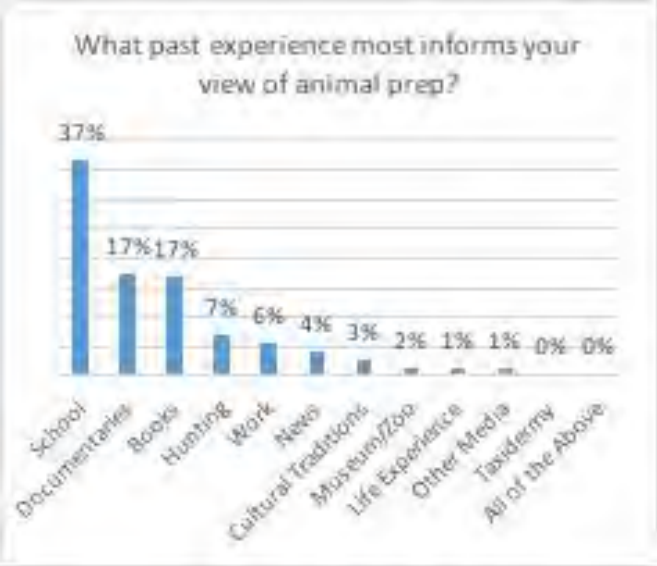
- **Femur mold-making** – Fossil preparator Bruce Crowley, along with Gary Livingston and several other volunteers, are making a mold of a hadrosaur femur by painting a rubber-like mixture over the fossil and using small rubber blocks to act as a depth gauge to

What we're learning

- **Animal prep perspectives** – We started to dig into the data received from visitors about their perspective on animal prep. This was a first-time experience for most, and their overall reactions were positive.







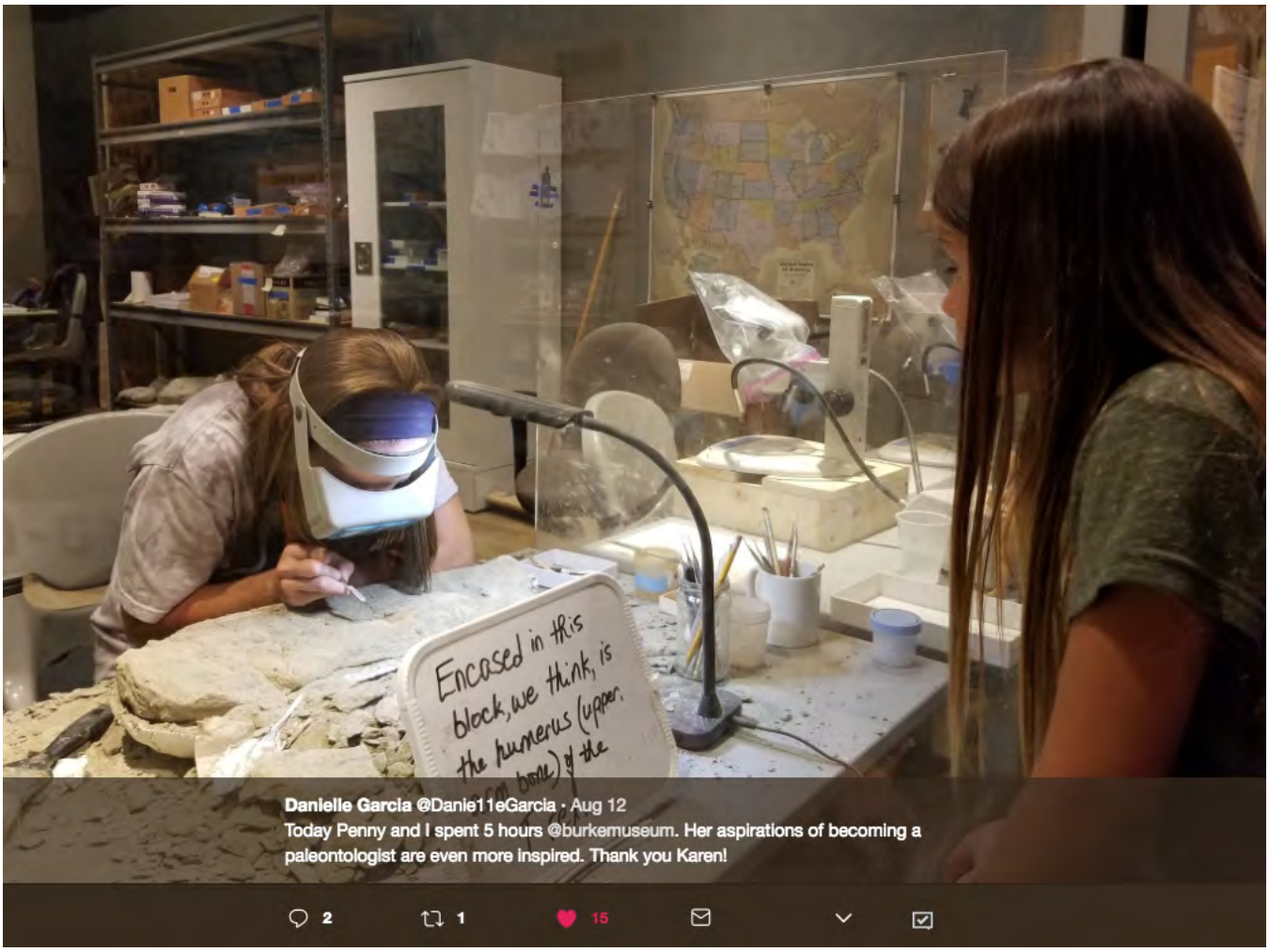
What's coming up

- **End of September** – Ethnology will move in to the workroom where Malacology is currently and Archaeology will move into Paleontology's large workroom.

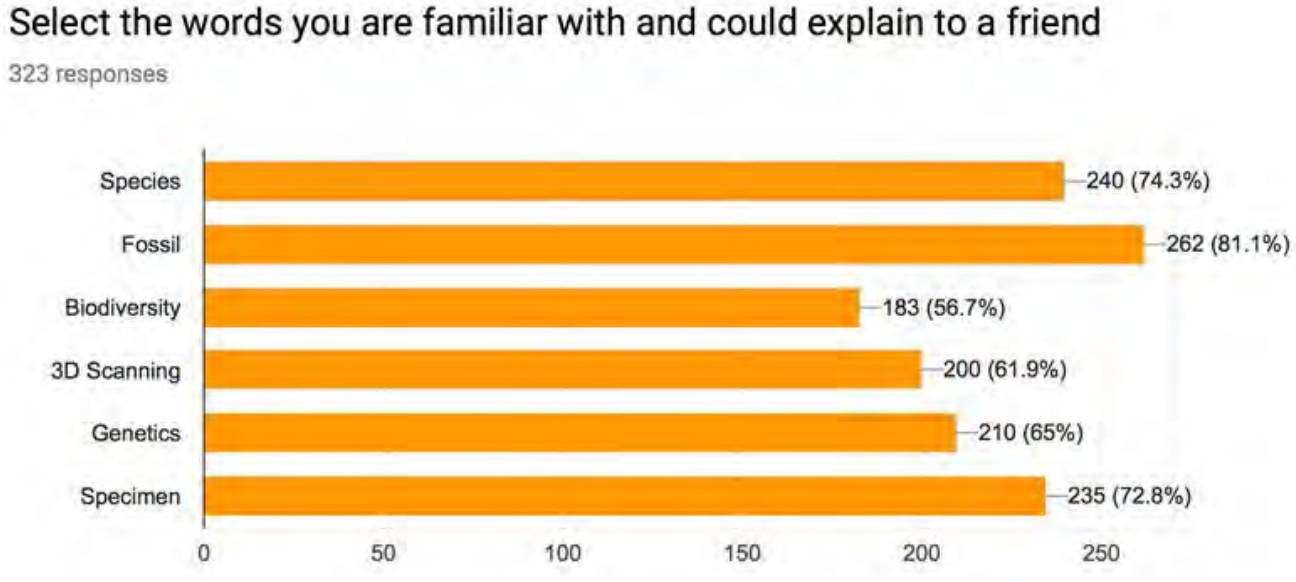
Snapshots of what we're hearing

- **Self-portrait of a future paleontologist** – A young girl illustrated a picture of herself as a paleontologist with the Burke *T. rex* skull in the background. Interpreters were instructed to deliver the drawing to the paleontologists behind the glass. It is now proudly on display in the workroom.

- **Captivated by microfossils** – A young visitor was so captivated by microfossil sorting that she pulled up a chair to the window and each time that paleontology volunteer Don found something she would cheer and try to get a closer look. When Don gestured to a fossil find under the microscope and then wrote a note saying he found a dinosaur tooth, she exclaimed, "this is so exciting!" The adults she was with were pleasantly surprised by her enthusiasm and even said, "maybe she will be a paleontologist now!"
- **Even more inspired** – From Twitter user @Danie11eGarcia: “Today Penny and I spent 5 hours @burkemuseum. Her aspirations of becoming a paleontologist are even more inspired.”



One step closer to the New Burke!



What's coming up

- **August 1** – Ornithology and Mammalogy will move out of the workroom. Paleontology will move in and prepare for something BIG. The workroom windows will be papered until *T. rex* LIVE begins.
- **August 12** – *T. rex* LIVE opening weekend! We will share the work on the *T. rex* skull with the public beginning Saturday, August 12. Special weekend activities will take place through Labor Day.

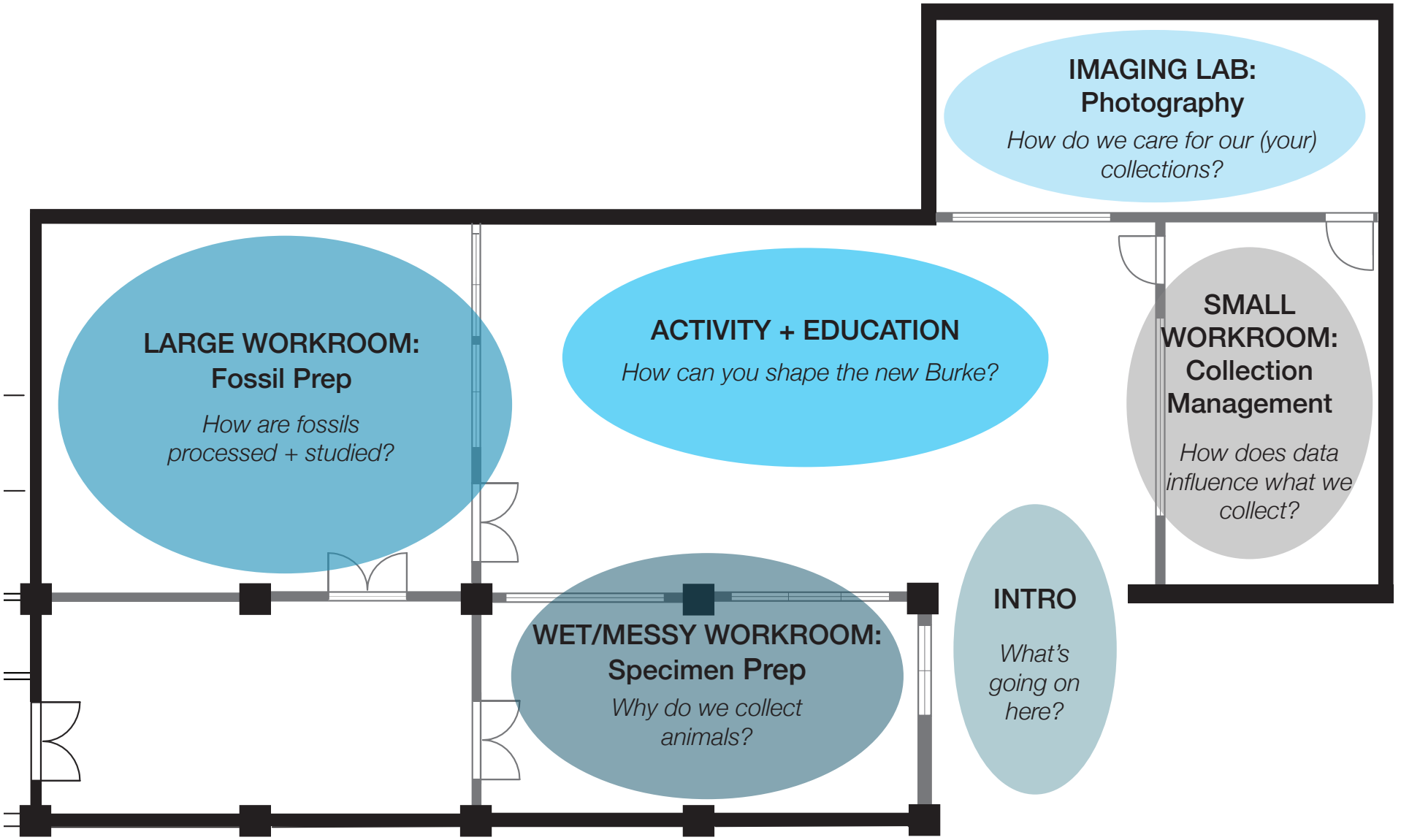
Snapshot of what we're hearing

- **Once is not enough.** A mother and her young daughter came in and were eager to share that this was their second time visiting because the daughter was fascinated by all of the bones and fossils. When asked about what she thought of the exhibit, she said, "I think it's pretty cool!" They are eager to return to see the *T. rex* in August.
- **Role models in action.** A middle school STEM camp camp through the space and the kids were so excited to see science in action and learn about careers in science that they hadn't necessarily known about before.
- **Visitors care about us.** Interpretive staff and volunteers report that some visitors are asking them about the people on the other side of the glass and whether they are liking this new way of working.
- **Inspiring the next generation of museum professionals.** A young visitor raised money for the Burke by turning his house into a natural history museum to celebrate his birthday. His father shared photos of the party through Facebook and brought in a poster his family made to show us their museum highlights. They purchased a family membership and assured us that they'll be back to see the *T. rex* skull soon!

Appendix D: Floor Plan

Conceptual Floor Plan

Prototyping Exhibit: Testing, Testing 1-2-3
Rotation #1 (June-July 2017)



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Appendix E: All Staff Presentation

Progress Report and Initial Findings | October 26, 2017

How We Got Here

- Learn what “see-through” looks like and how it works
- Identify areas of institutional change

Testing Categories

Form

what the physical space looks like

Function

what are the protocols, training and staffing capacity needs

Fun

what interpretive themes and activities make this a meaningful visitor experience

Evaluation Sources

STAFF

- Feedback Forms (n=75)
- Weekly Huddles
- Debriefs

VISITORS

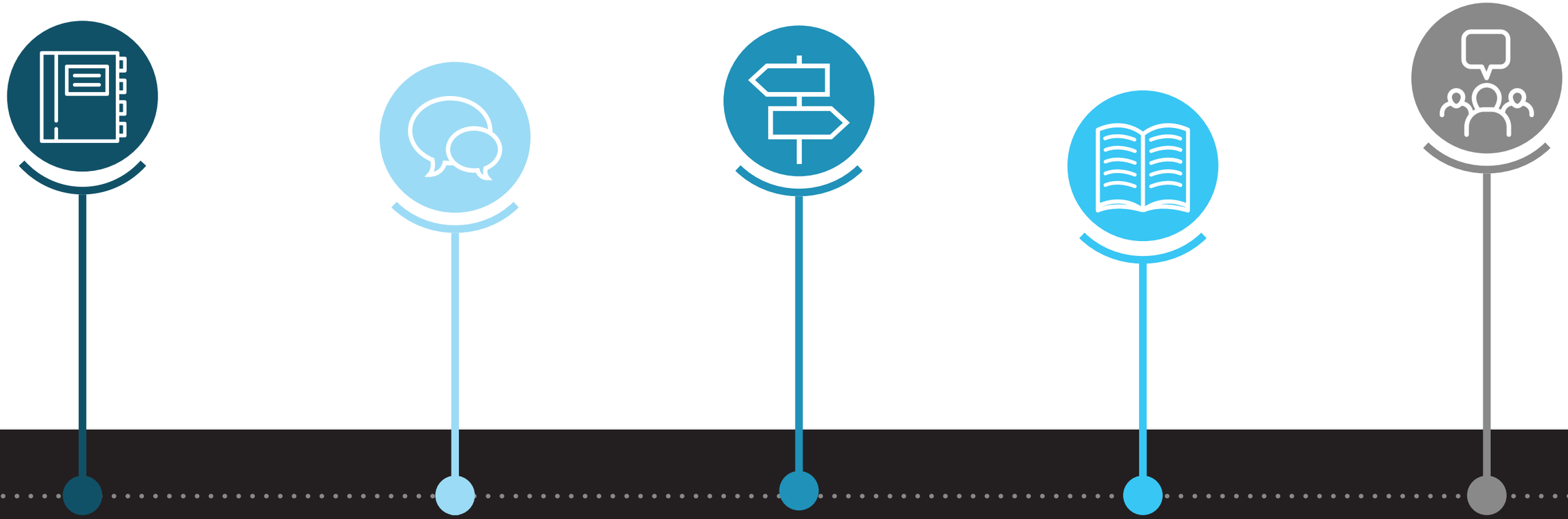
- Intercept Interviews (n=34)
- Gallery Observations (n=63)
- iPad Polling (n=1982)
- Interpreter Conversations

Fast Facts

- **132**: days the exhibit has been open
- **20,000**: approximate number of visitors
- **156**: staff and volunteers directly involved
- **50:** new volunteer collection interpreters recruited
- **11**: trainings conducted (8 volunteer interpreter, 3 collection)
- **91%**: visitors gave “would you recomend score” ≥ 7 of 10

A Few Results

what we learned about form, function and fun



protocol + preparation

communication + scheduling

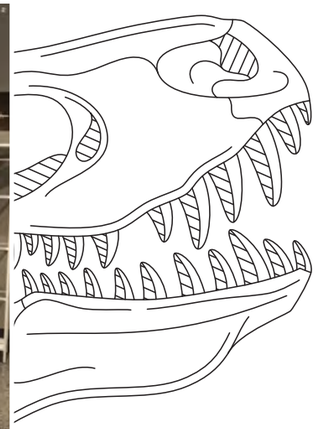
shaping visitor behavior

understanding visitor interests

defining interpreters' roles

Protocol and Preparation

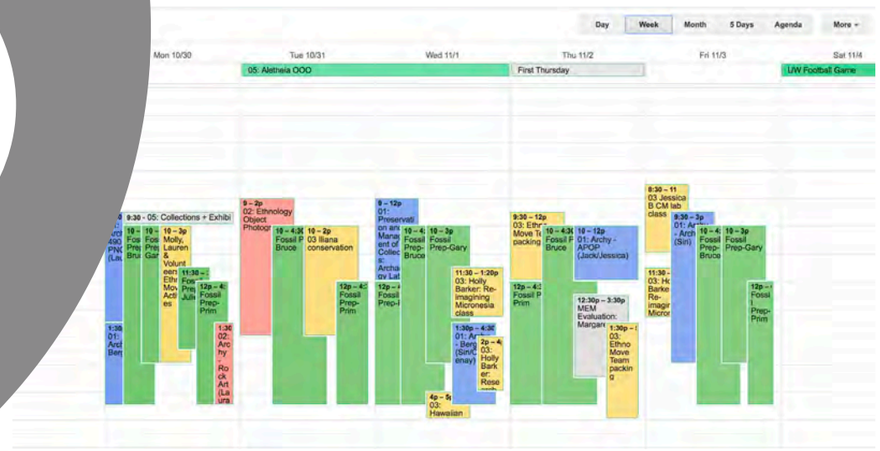
- Define responsibilities and set expectations for working in the public
- Whiteboards: info and personality
- Experimented with opportunities provided by new work environment



T. rex will see you now

Communication and Scheduling

- Weekly Huddle (interdisciplinary)
- Attempted centralized calendar to track work in public
- Test demonstrates capacity demand

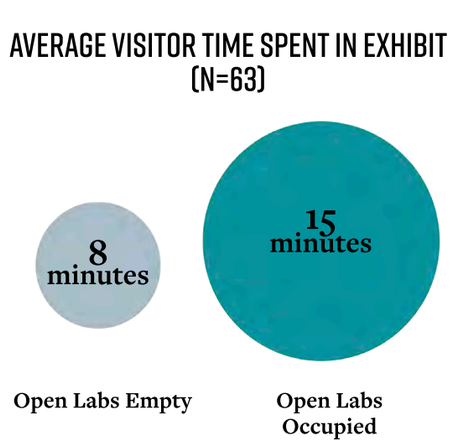


Shaping Visitor Behavior

- Little to no “problematic” behavior
- Setting norms in new type of space
- Furniture is not a useful barrier

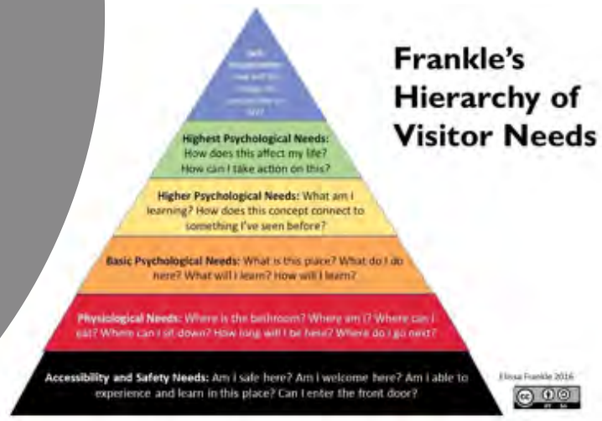
Understanding Key Visitor Interests

- Authentic opportunities to view/interact
- Specificity, process, and tools
- Being physically close to work



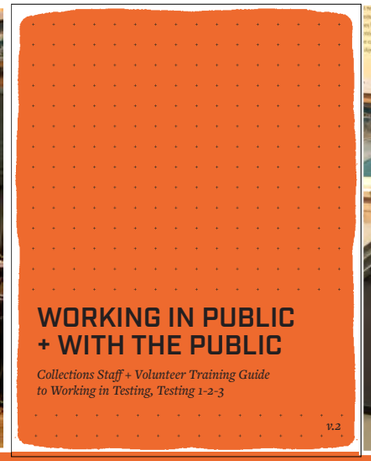
Defining Interpreter Role: Volunteer

- Bridge to Burke work + collections
- Help visitors feel welcome
- Partner in visitor learning



Defining Interpreter Role: Staff

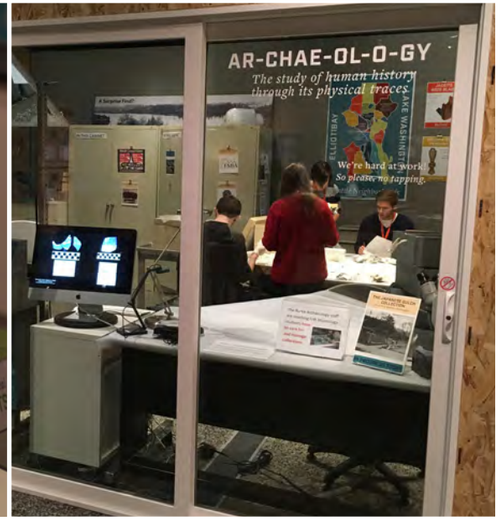
- Creating practice + content manuals
- Trainings, workshops + mentorship
- Communication hub

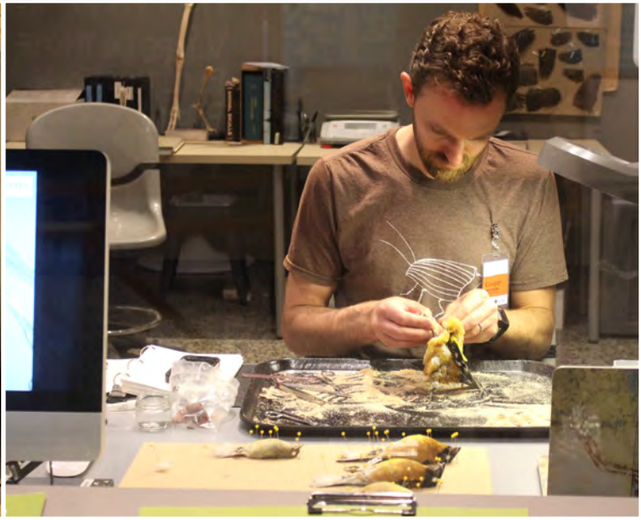


Key Takeaways

- It’s working!
- We have direction where to invest resources
- Refine and implement communication systems

Questions? Thank You!





Credits: Creative Stall, Vectors Market, Arif Fajar Yulianto, Loudoun Design Co., Aneeque Ahmed, Edward Boatman, AlePio, Ron Scott, Lilit Kalachyan, Xinh Studio, Chameleon Design, Oliviu Stoian and Andrejs Kirma from the Noun Project