



Nelson-Atkins Museum of Art Bloch Galleries Summative Evaluation Report

March 27, 2018

Maia Werner-Avidon, Principal
MWA Insights

with

Laura Brown, Manager of Evaluation and Visitor Research
Alyssa Carr, Evaluator
Nelson-Atkins Museum of Art



**The
Nelson-Atkins
Museum
of Art**

INTRODUCTION.....	4
EVALUATION QUESTIONS	5
METHODS	6
PARTICIPANT DEMOGRAPHICS	8
SUMMARY OF FINDINGS.....	9
IMPLICATIONS.....	11
DETAILED FINDINGS	13
AWARENESS AND INFLUENCE OF THE BLOCH GALLERIES	13
AWARENESS RATE.....	14
OVERALL INFLUENCE RATE	15
CONVERSION RATES	15
OVERALL RESPONSE TO GALLERIES.....	16
OVERALL EXPERIENCE RATING	16
CHANGE IN OPINION OF THE NELSON-ATKINS MUSEUM OF ART	20
ENGAGEMENT WITH INTERPRETIVE ELEMENTS.....	21
USE OF INTERPRETIVE ELEMENTS.....	21
DEPTH OF ENGAGEMENT WITH INTERPRETIVE ELEMENTS.....	24
FEEDBACK ON SPECIFIC DIGITAL INTERPRETIVE ELEMENTS	26
REASONS FOR STOPPING AT DIGITAL COMPONENTS	27
RATINGS OF DIGITAL COMPONENTS	28
IMPACT OF EXPERIENCE OF ENGAGING WITH THE ART.....	31
UNDERSTANDING OF PURPOSE OF DIGITAL COMPONENT.....	32
USABILITY OF DIGITAL COMPONENTS	34
RESPONSE TO DIGITAL INCLUSION.....	36
RESPONSE TO DIGITAL INCLUSION	37
PERCEIVED AUDIENCE FOR DIGITAL EXPERIENCES.....	38
GENERAL PREFERENCES FOR ANALOG AND DIGITAL INTERPRETIVE ELEMENTS.....	39
PREFERRED CONTENT FORMATS.....	39
PREFERENCES FOR DIGITAL EXPERIENCES.....	40
PLACEMENT OF DIGITAL INTERPRETIVE COMPONENTS.....	41
EVIDENCE OF LEARNING.....	42
AWARENESS OF KEY CONCEPTS.....	42
SELF-REPORTED KNOWLEDGE GROWTH.....	46
KNOWLEDGE GROWTH SEEN ON PMMS.....	49
EVIDENCE OF EMOTIONAL IMPACT.....	60
REFERENCES	63
APPENDICES.....	64
APPENDIX A: GALLERY DEBRIEF INTERVIEW.....	64

APPENDIX B: PERSONAL MEANING MAP INSTRUMENT.....67
APPENDIX C: RUSSELL AFFECT GRID.....71
APPENDIX D: FOCUSED INTERVIEW – GALLERY+73
APPENDIX E: FOCUSED INTERVIEW – IN THE DETAILS.....75
APPENDIX F: FOCUSED INTERVIEW – COLOR COMPOSER.....77

INTRODUCTION

The Nelson-Atkins Museum of Art is recognized as one of the world's finest encyclopedic art museums. Its collections encompass more than 40,000 art objects, including masterpieces from diverse world cultures spanning 5,000 years of history. Well known for the arts of China and also Japan, South and Southeast Asia, the museum also holds significant works from European, American, American Indian, and African traditions along with a magnificent photography collection. The Nelson-Atkins also boasts strong modern and contemporary collections with a major emphasis on sculpture that supports the Donald J. Hall Sculpture Park, which includes over 30 monumental works. The encyclopedic collection represents a pinnacle of artistic achievement and serves as evidence of humankind's history, religions, philosophies, aspirations, and daily lives.

In June 2015, the Nelson-Atkins Museum of Art welcomed into its collection 29 masterworks by leading Impressionist and Post-Impressionist artists. The Marion and Henry Bloch Collection, acquired over the course of 20 years, was among the few outstanding collections of Impressionist and Post-Impressionist art remaining in private hands. The Nelson-Atkins Museum of Art is the grateful recipient of this transformative gift, which inspired a major renovation of the museum's 19th- and early-20th-century European galleries.

The new Bloch Galleries offer visitors an immersive experience with the Bloch Collection masterpieces as integrated into the museum's rich collections. The new galleries are made possible by funding from the Marion and Henry Bloch Family Foundation.

This renovation project presented staff with the opportunity to experiment with visitor engagement and interpretation strategies, including:

- Gallery+ bench-mounted iPads located in the Impressionist galleries to provide layered content and activities for in-depth exploration of the art, artists, and historical context of the time.
- Digital interactives allowing visitors to engage with artworks in new ways, such as:
 - In the Details: Located in the Modernism gallery, this touchscreen enables visitors to zoom into and freely explore ultra-high-resolution images of works on view.
 - Color Composer: Inspired by and located near an artwork by Wassily Kandinsky, visitors construct a digital painting that comes to life as an animated soundscape.
 - Printmaking: Located in the Works on Paper gallery, this iPad features bite-sized GIF animations that illustrate the steps involved in producing different types of prints.
- Detour app that uses location-aware technology to provide visitors with new immersive tours and audio stops integrated alongside existing content.
- Revised text panels incorporating thematic content encapsulated within a more visitor-friendly design. The Bloch Galleries permanent collection renovation project allowed staff to rethink the museum's approach to permanent collection text panels. Internally, staff felt that the existing permanent collection text panels could be improved (panels

were color-matched to gallery walls, word count for each panel often exceeded 225, and text was organized into long, hard-to-read paragraphs).

Through two rounds of formative testing, staff experimented with text panel content organization and style in order to create a more readable, accessible, and eye-catching template for the permanent collection text panels.

The resulting panels are installed throughout these new galleries and we plan to expand this format into other galleries. In addition to graphic changes, educators and curators sought to provide descriptive, rather than taxonomic, titles to text panels to better convey the themes of each gallery (i.e., “Observing Modern Life” instead of “Impressionist Art;” “Anxiety and Alienation” in lieu of “German Expressionism”).

The museum identified the following three desired visitor outcomes for the Bloch Galleries:

1. Visitors will understand the key concepts articulated in the galleries:
 - Art is shaped by the historical, social, economic, technological, and political contexts of the time;
 - Art of this period included a diversity of artistic styles; and
 - Art of this period evolved and progressed over time.
2. Visitors will find that the interpretation in the Bloch Galleries is appropriate for and helps in expanding their level of knowledge surrounding European art from 1750 to 1945.
3. Visitors to the Bloch Galleries will experience an emotional connection with the art.

To understand the extent to which the newly-renovated Bloch Galleries achieved these outcomes and to identify best practices that can potentially be incorporated throughout the museum, the Nelson-Atkins contracted with MWA Insights to conduct a summative evaluation of the renovated galleries. This summary report highlights a selection of key findings from the larger study.

EVALUATION QUESTIONS

Specific evaluation questions included:

1. Who is visiting the new Bloch Galleries?
 - Are the visitors to the Bloch Galleries different from past museum visitors?
2. Do visitors come away with the main messages of the galleries?
 - Which interpretive components are most effective in contributing to this outcome and why?
3. Regardless of their initial level of understanding, do visitors expand their knowledge of European Art from 1750 to 1945?

4. How does visiting the Bloch Galleries impact visitors emotionally?
 - Does engagement with specific gallery components contribute to this emotional impact?
 - Does emotional impact correlate with learning?
5. In what ways do art museum visitors desire to engage with technology as part of their museum experience?
 - What can we learn from visitors' responses to the digital components of the Bloch Galleries that be generalized to help guide the use of technology in other areas of the museum?
6. How do these new galleries shape visitors' overall perception of the museum?
 - Do visitors notice these galleries as different than other parts of the museum?
 - If so, do visitors view these differences positively?
7. Is there specific feedback we can gather from visitors to improve the specific interpretive components and to guide the design of gallery interpretive elements in the future?

METHODS

The summative evaluation of the Bloch Galleries utilized a mixed-methods approach incorporating the following methods:

Gallery Debrief Interviews (n=91)

Visitors were randomly selected as they exited the space and asked to participate in an interview about their experience in the Bloch Galleries. Questions on the Gallery Debrief Interview included motivations for visiting, awareness of the newly-renovated Bloch Galleries, overall response to the Bloch Galleries, understanding of key messages and self-report of knowledge gained, use of and response to the interpretive elements, and change in perception of the museum. Demographic information was also collected. See Appendix A for the Gallery Debrief Interview instrument.

Personal Meaning Maps (n=85)

Personal Meaning Mapping (PMM) is a tool developed specifically to assess museum learning in which an individual's knowledge and views about a topic are investigated both prior to a visit to an exhibition (or set of galleries) and again after the visit (Falk, Moussouri & Coulson, 1998).

PMM, similar to concept mapping, is a technique that uses open-ended interviews both before and after visiting an exhibition to gauge visitor understanding of the topics related to the exhibition. The technique is designed to provide insight into what prior knowledge visitors are bringing with them, and allows us to see how their knowledge or awareness changes as a result of their experience in the exhibition.

Visitors *entering* the Bloch Galleries were randomly selected by data collectors and asked to participate in the PMM exercise. Participants were presented with a sheet of paper with the words “European Art 1750 to 1945” printed in the center. They were asked to write down any thoughts, feelings, or ideas that come to mind when they see the words “European Art 1750 to 1945.” Visitors’ responses were then used as the starting point for an open-ended interview where they were asked to elaborate on up to three things that they had noted. Responses to the interviews were recorded on each visitor’s map. Visitors were asked to return to the data collector after they were finished in the Bloch Galleries to participate in the post-visit PMM interview. They were given back their original map and asked to make any changes, modifications, deletions, or additions they would like. Again, an open-ended interview was conducted, with the visitor being asked to expand on up to three changes they made to their map. The maps were then scored along three different dimensions:

1. **Breadth:** The number of different conceptual categories mentioned by the visitor either in their initial written response or in the follow-up interview.
2. **Depth:** How deeply visitors seemed to understand the conceptual categories that they chose to discuss in their follow-up interview.
3. **Holistic Mastery:** The overall understanding of the prompt “European Art 1750 to 1945” as documented in both their initial written response and the follow-up interview.

PMM participants were also asked to provide demographic information and identify the interpretive components with which they engaged. See Appendix B for a copy of the PMM instrument.

Russell Affect Grid (n=85)

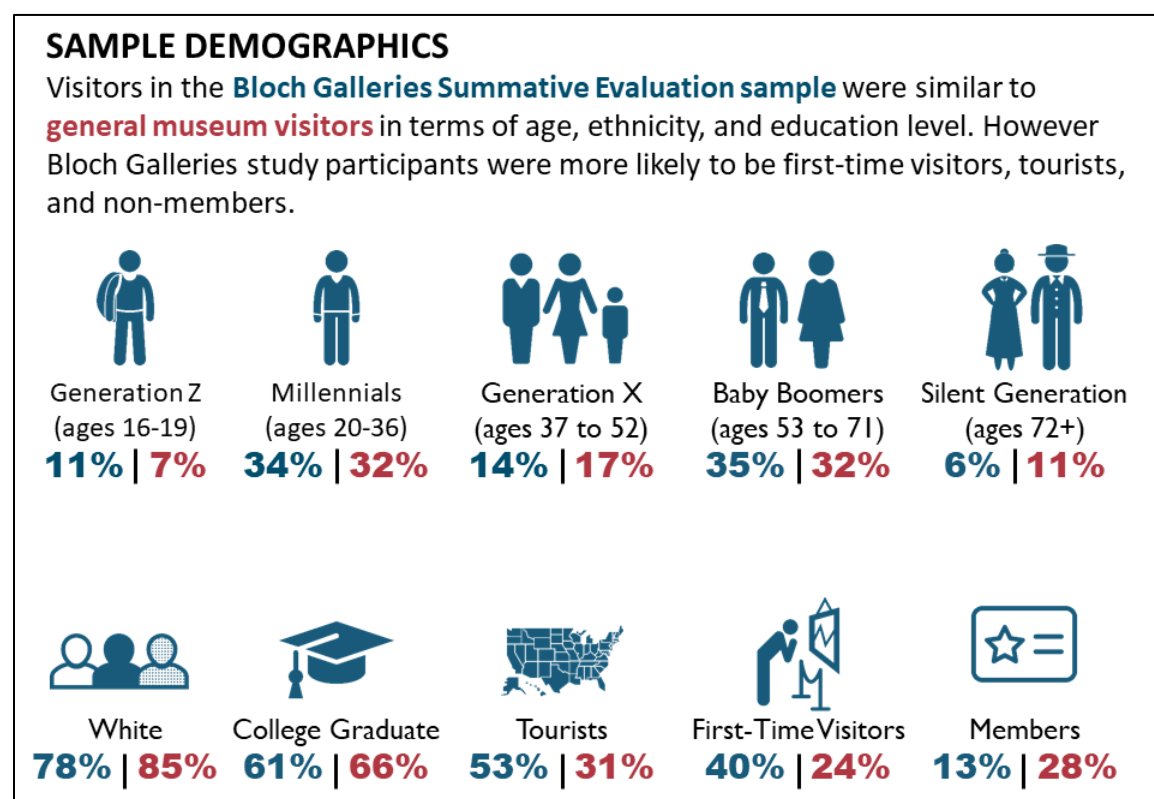
To understand the emotional impact of the experience in the Bloch Galleries, the Russell Affect Grid (Russell, Weiss, & Mendelsohn, 1989) was used in conjunction with the PMM exercise. The Russell Affect Grid is designed as a quick way to assess emotion along two dimensions: 1) pleasure to displeasure and 2) high energy to low energy. Visitors were asked to place a mark on a 9x9 inch grid that represents their current emotional state along these two dimensions both before and after visiting the galleries. See Appendix C for a copy of the Russell Affect Grid instrument.

Focused Interpretive Strategy Interviews (n=74)

For the three main in-gallery digital components (Gallery+ iPads, In the Details, and Color Composer), focused interviews were conducted that specifically centered on the digital components. A total of 74 interviews were conducted (29 for Gallery+, 25 for In the Details, and 20 for Color Composer). These mini-studies were designed to understand how visitors are using the digital components, namely: the specific features with which they choose to engage; any usability issues that arise; whether they are coming away with the intended key ideas; and how engaging with each component impacts their experience of looking at the artwork. The focused interviews also sought to answer some questions that arose through the broader evaluation study, regarding perceived low engagement with some of the digital interpretive elements. See Appendices D, E, & F for copies of the focused interview questions.

PARTICIPANT DEMOGRAPHICS

In general, visitors in the Bloch Galleries Summative Evaluation sample were similar to the museum’s general visitors in terms of age, ethnicity, and education levels, as measured through a 2016 exit survey project funded by the Ewing Marion Kauffman Foundation. There were, however, a few noteworthy differences between the two groups. Participants in the Bloch Galleries Summative Evaluation were more likely to be first-time visitors to the museum (40%) than those in the exit survey study (24%). Related, Bloch Galleries study participants were more likely to be tourists from outside the 15-county Kansas City metropolitan area (53% in the Bloch Galleries study, compared to 31% in the exit survey) and were also less likely to be members (13% in the Bloch Galleries study, compared to 28% in the exit survey). **Note from internal evaluation staff:** As of March 2018, data from Year 2 of the Kauffman Exit Survey Project is still being analyzed (data was collected from September-December 2017). Findings from this study will provide additional information about Bloch Galleries visitors.



The study team used a convenience sampling technique for the focused interviews. Convenience sampling is a non-probability sampling technique where participants are selected because of their convenient accessibility and proximity to the researcher. Because we didn’t use a random sampling method to select visitors, the participants included in the focused interviews sample are not representative of the larger population. As such, the demographics of the focused interview participants were somewhat different than the broader sample of Bloch Galleries visitors.

The visitors in the focused interviews sample were slightly more ethnically diverse than visitors in the larger study (35% people of color compared to 22% in the larger study). They also tended to be somewhat younger (66% were millennials or younger, compared to 45% in the broader study). Focused interview participants were also less likely to be members (3% compared to 13% in the broader study) and were more likely to be first-time visitors (52% compared to 40% in the broader study). They were also less likely to be college graduates (46% compared to 61%), most likely due to their younger ages.

SUMMARY OF FINDINGS

The following provides a summary of the key findings from the evaluation:

- Finding #1: Overall, about half of visitors had heard about the new Bloch Galleries before visiting. Historically represented museum audiences (that is, visitors who are older, white, and repeat visitors) were more likely to have heard of the Bloch Galleries before visiting the museum than underrepresented audiences (visitors who were younger, people of color, and first-time visitors). However, if they heard about the Bloch Galleries before visiting, underrepresented audiences were highly likely to say it played a role in their decision to visit. This suggests an opportunity to attract larger numbers of underrepresented visitors to the museum through increased marketing to these audiences.
- Finding #2: Visitors had high satisfaction with their experience in the Bloch Galleries. In addition to the high quality of the artwork itself, visitors noticed and appreciated the gallery design, including the open flow, lighting, wall color, etc. Interestingly, the inclusion of the decorative arts in the galleries (in addition to painting and sculpture) was specifically highlighted as something that enhanced the visitor experience.
- Finding #3: Overall, visitors reported using analog interpretive elements (e.g., object labels, wall panels) more frequently and more thoroughly than digital elements. However, the youngest visitors (Generation Z) did tend to take advantage of the digital components, with nearly 3 out of 4 Generation Z visitors reporting using at least one digital element. With the exception of the Detour app (which had particularly low usage due to lack of awareness), self-reported usage of the other digital components was fairly similar, with about 15-20% of visitors indicating that they used each individual component. However, self-reported thoroughness of engagement varied widely, with Gallery+ users indicating particularly low engagement.
- Finding #4: Digital experiences that invite visitors to see the art in new ways can be highly impactful. Digital experiences work best when they are clear and intuitive, when they behave in predictable ways in response to the user, and when the experience matches the visitors' expectations and desires during that moment of their visit. Subfindings related to the specific interpretive elements included:
 - 4a. Participants had different reasons for electing to engage with particular digital components. Participants using In the Details reported stopping because they wanted to look more closely at the artworks. Participants using Color

Composer were interested in having a hands-on, interactive experience. Participants using Gallery+ seemed to be less intentional about their use of the component, often saying that they stopped because they simply wanted to sit down and the iPad was there, they were curious about what the iPad was, or they thought the iPad was something else (e.g. access to online collection, museum orientation information, docent tool, etc.).

- 4b. In the Details received the highest ratings of the three digital components included in the focused interviews. Participants seemed to really like that the experience was directly connected to the artworks and helped them see new things about the art that they might not have otherwise noticed. Gallery+ participants appreciated the added content, especially the “Which Artist Would You Be?” quiz, however many had difficulty rating the impact of Gallery+ on their experience in the galleries because they felt that they had not engaged in an adequately thorough manner. Participants liked the hands-on, interactive, and creative nature of Color Composer, but found the user experience frustrating or confusing because they were not clear on the interactive’s “rules” or programmed behaviors.
 - 4c. To some degree, participants were able to articulate ways in which engaging with all the digital components impacted their experience of looking at the art. In the Details helped them notice new things and appreciate the artistic process. Color Composer helped them appreciate modern and abstract art and better understand the complexity of creating art. Gallery+ enhanced their knowledge and inspired some people to look for specific works of art in the galleries. However, the connection to the art was clearer for In the Details, with more Color Composer and Gallery+ users expressing difficulty in making a connection with the art or in seeing the experience as more of a break from the observation of the art.
 - 4d. Participants seemed to have a somewhat clear understanding of the purpose of In the Details as a tool to look closely and see new things about the art. For Gallery+ and Color Composer, a greater number of participants perceived the components as primarily digital or interactive tools for audience engagement rather than articulating a clear understanding of the intention behind the component.
 - 4e. There were a few usability issues that arose with each digital component, however Color Composer was the most problematic. For In the Details, some participants were unaware of the available capabilities of the component, particularly the ability to adjust the level of zoom. For Gallery+, the main issue was that certain features were underutilized. This may be due to lack of clarity around the section titles or the way that the links between sections are set up. For Color Composer, participants had difficulty understanding the “rules” of why certain things happened in the experience and were also frustrated by the “share” option not working during the data collection period.
- Finding #5: Although self-reported use of and, in some cases, engagement with digital elements was lower than analog elements (e.g., labels, panels, etc.), visitors responded

positively to the inclusion of digital experiences in the galleries. Visitors liked that the digital experiences were available for other users (particularly children and younger adults), even if they did not themselves engage with them.

- Finding #6: Visitors generally preferred traditional, analog methods of getting content, particularly object labels, which were valued for their ability to provide just-in-time information when and where the visitor wanted it. However, digital users were interested in a range of digital experience options in the galleries and felt strongly that these experiences should be offered in close proximity to the artwork, as opposed to only online or in an app format (some, however, thought it would be valuable to duplicate the experiences in these alternate formats).
- Finding #7: The study's rubric-scored PMMs and visitors' self-reported expansion of knowledge both showed evidence of content knowledge gain, with the art itself and the interpretive text perceived as contributing most to this boost. Visitors who reported lower baseline knowledge entering the galleries, however, also reported lower growth in knowledge, suggesting that these visitors may benefit from some different or additional interpretative approaches. Additionally, about half of visitors entered the galleries with some kind of misconception about European art from 1750 to 1945. Encouragingly, some visitors recognized and acknowledged their misconceptions after visiting the galleries, and almost no visitors articulated new misconceptions after leaving the galleries. Visitors showed moderate awareness of the key concepts identified by the museum. More thorough wall panel usage seemed to be related to awareness of the key concepts, though there is also some evidence from the PMMs to suggest that thorough wall panel users tend to have higher levels of prior knowledge of these concepts before visiting.
- Finding #8: The evaluation study also provided evidence that visiting the Bloch Galleries has a positive effect on mood or emotional state. Visitors reported increased feelings of pleasure after visiting the galleries, primarily seen as resulting from engagement with the art.

IMPLICATIONS

As the Nelson-Atkins Museum of Art continues to experiment with more accessible gallery design, interpretive text, and integrated in-gallery technology, the findings from the Bloch Galleries Summative Evaluation will provide important information to consider.

The following implications underscore some of the key takeaways from this project.

Consider replicating aspects of the Bloch Galleries in other areas of the museums: Several aspects of the gallery experience in the renovated Bloch Galleries were successful and could possibly serve as a replicable model for other reinstallation projects. Specifically, the integration of the decorative arts (as well as painting and sculpture), the interpretive text approach (encompassing design, content, and tone), and the overall gallery design (open flow of galleries, paint colors, lighting, etc.) were all mentioned as highly impactful to visitors.

Consider ways to increase awareness of the Bloch Galleries among “non-traditional” visitors: “Non-traditional” audiences (visitors who were younger, people of color, and first-time visitors) were less likely to be aware of the Bloch Galleries before visiting the museum. If they were aware, however, they were highly likely to indicate that seeing the Bloch Galleries played a role in their decision to visit. The museum may want to consider ways to increase marketing of the Bloch Galleries specifically to these audiences.

Consider visitors’ prior knowledge when thinking about content and gallery organization: The large number of misconceptions about European art from 1750 to 1945 that visitors had when entering the galleries suggests that many visitors have difficulty placing artists, art movements, or artworks within historical time periods. It may be worth discussing what implications this might have on how the museum chooses to organize its galleries or deliver its content. In what ways can gallery installations address common misconceptions?

Consider how the museum may be able to better serve visitors entering with lower levels of prior knowledge: Visitors who reported lower baseline knowledge entering the galleries also reported lower growth in their knowledge as a result of their visit. It may be worth conducting additional research with visitors who feel that they are entering at a lower knowledge level to understand what different or additional interpretive approaches might appeal to them. Tactile or hands-on experiences are not present in the current galleries and might be one approach that would appeal to this audience.

Explore how digital experiences can best be designed to both attract visitors and enhance their experience: Variation in the self-reported use and engagement with the digital experiences raises questions about the types of digital experiences that may have the greatest impact in the museum’s galleries. Visitors are interested in just-in-time content when and where they want it, and they desire experiences that offer them new insights into the art around them. The museum should explore not only the types of digital experiences it offers, but also the best mode of delivery and location, particularly for in-depth content such as that offered by Gallery+. There is interest in audio tours as a mode of content delivery, but usage of the Detour app was particularly low due to lack of awareness. The museum should explore how to market these experiences to ensure that visitors are aware of the full suite of experiences available to them. Additionally, the following specific recommendations should be considered in the design of future digital interpretive experiences:

- Work to ensure that the experience available through a given digital component is clear to visitors, so that they can intentionally choose whether they want to engage. The name, introductory screen, and size of a component can all play a role. It may be easier for visitors to grasp the available experience on a larger touchscreen, rather than on a tablet.
- Digital experiences that are located adjacent to seating are likely to be explored by visitors, but this engagement is perhaps less intentional than in stand-alone experiences. It would be valuable to think about the types of experiences that may be most engaging to visitors who wish to take a break and to accordingly tailor the tone,

experience, and content design to serve these audiences. Alternately, offering content that is directly related to the art in front of the seating areas would be another logical approach.

- Digital experiences that directly connect to the art and that help the visitors to see the art in new ways are highly valued. Think about ways to strengthen the connections between digital experiences and the surrounding artworks.
- In designing creative experiences, ensure that the “rules” of the experience are consistent and clear to visitors so that they can predict how the interactive will respond to their actions. This helps the visitors retain control of the experience and enables them to create the result that they desire.
- For content-rich experiences, the combination of fun activities with embedded links to related content appears to be a successful approach to engaging visitors and encouraging them to dig deeper. Think about ways that the links could be organized to invite visitors to explore the full range of available content. Consider ways to keep the content updated, particularly when newsworthy, art-related events occur. For multi-layered digital experiences, test section titles with visitors to ensure they are clear about the options available to them.
- For all digital experiences, consider ways to ensure that the features or capabilities of the component are intuitive to visitors. Icons or written instructions for possible visitor actions (e.g. zoom in/out, move around, etc.) may be beneficial.
- Continue to offer a range of different types of digital experiences (e.g., additional content, creative opportunities, close-looking, process-focused, etc.) within the galleries and in close proximity to the related artworks. Consider duplicating some of these experiences in web-based or app formats.

DETAILED FINDINGS

Awareness and Influence of the Bloch Galleries

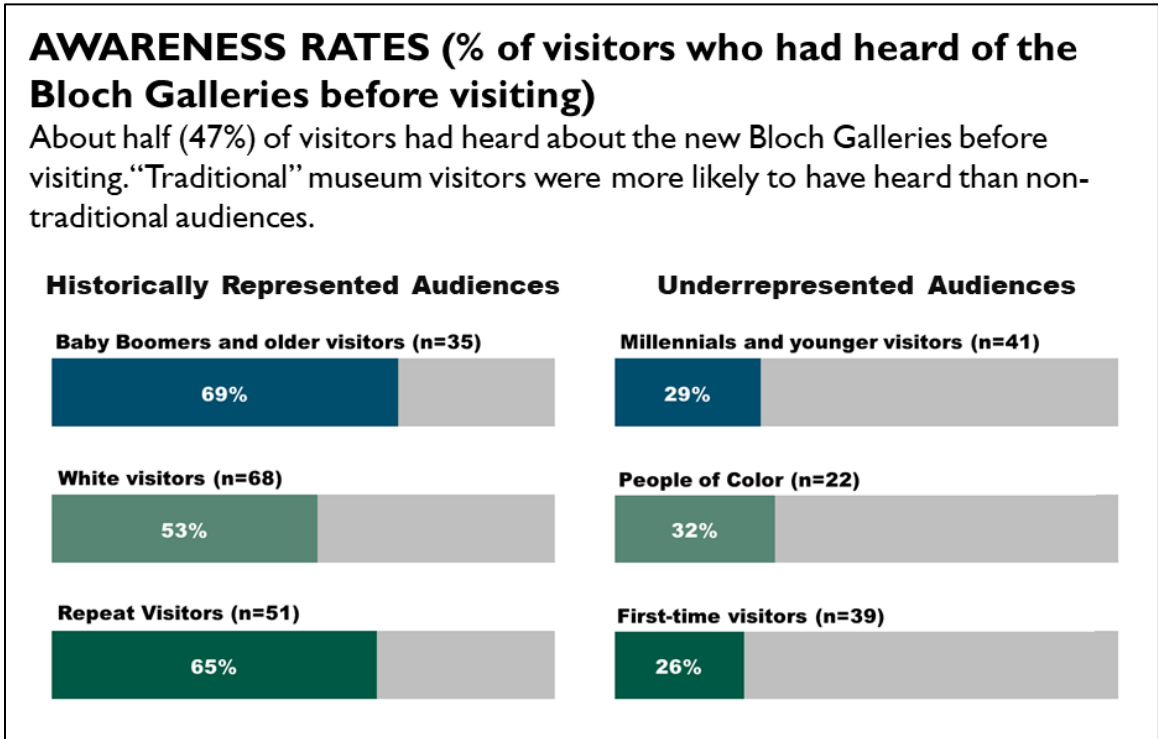
Finding #1: Overall, about half of visitors had heard about the new Bloch Galleries before visiting. Historically represented museum audiences (that is, visitors who are older, white, and repeat visitors) were more likely to have heard of the Bloch Galleries before visiting the museum than underrepresented audiences (for example, visitors who were younger, people of color, and first-time visitors). If they heard about the Bloch Galleries before visiting, however, underrepresented audiences were highly likely to say it played a role in their decision to visit. This suggests an opportunity to attract larger numbers of underrepresented visitors to the museum through increased marketing to these audiences.

As part of the Gallery Debrief Interviews, visitors were asked a series of questions related to awareness of the Bloch Galleries and the resulting influence of the galleries on their decision to visit the museum. Three measures were used to examine the influence of the Bloch Galleries: Awareness Rate (percent of visitors who heard of the Bloch Galleries before visiting), Overall

Influence Rate (percent of all visitors who indicated the Bloch Galleries played a role in their decision to visit), and Conversion Rate (percent of visitors who heard of the Bloch Galleries and also indicated it played a role in their decision to visit).

Awareness Rate

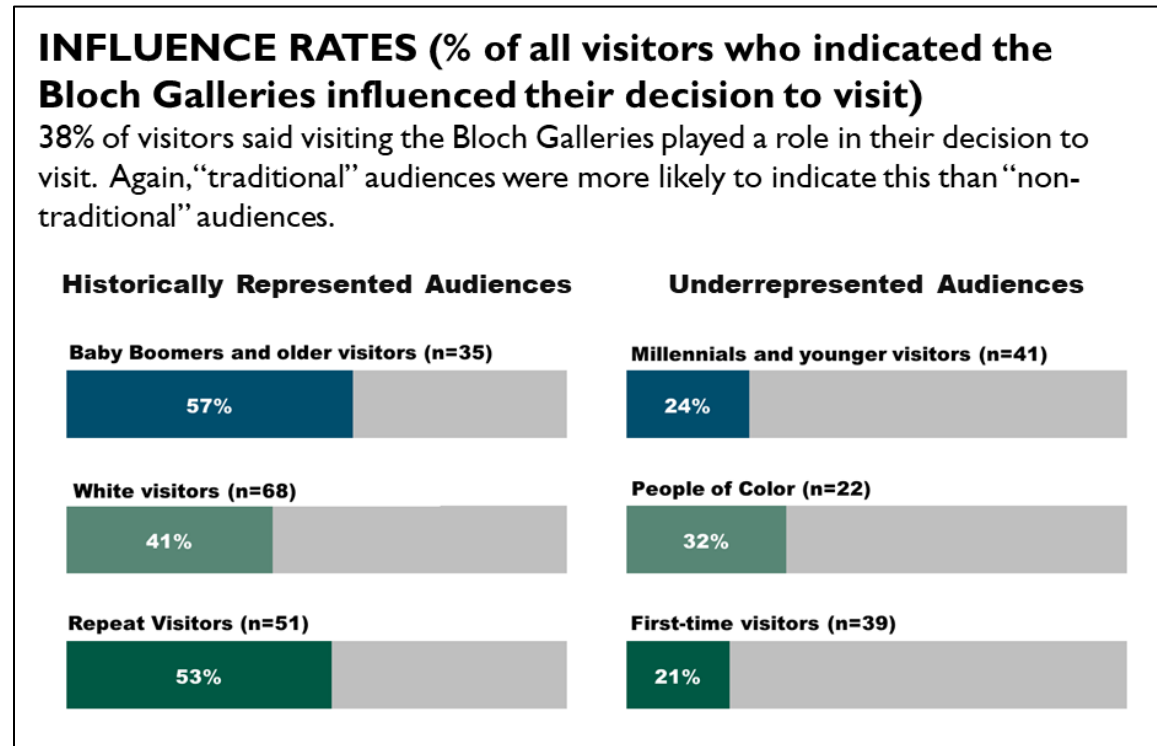
Overall, about half of visitors (47%) indicated that they had heard about the Bloch Galleries before visiting. Visitors who represented more historically represented museum audiences—individuals who were Baby Boomers or older, white, or repeat visitors—were more likely than underrepresented visitors—those who were Millennials or younger, people of color, or first-time attendees—to say that they had heard of the Bloch Galleries before visiting. Most of the first-time visitors were also tourists from outside the 15-county Kansas City metropolitan area. Although the sample of local first-time visitors was quite small (n=7), there did not appear to be a difference in awareness of the Bloch Galleries between local first-time visitors and tourist first-time visitors. Among both locals and tourists, slightly more than one-quarter of first-time visitors were aware of the Bloch Galleries before visiting. However, due to the small sample size of local first-time visitors, it is difficult to know if this is representative of a broader population. There was also a very small number of museum members in the Gallery Debrief Interview sample (n=8). However, 7 out of the 8 members interviewed indicated that they had both heard of the Bloch Galleries before visiting and that the Bloch Galleries played a role in their decision to visit the museum.



Significant difference in awareness rates by age and frequency of visitation (Fisher’s Exact Test, p<.05).
 Difference in awareness rates by ethnicity was approaching significant (Fisher’s Exact Test, p<.10).

Overall Influence Rate

Overall, 38% of respondents indicated that a desire to visit the Bloch Galleries played a role in their decision to visit the museum. Closely related to the higher awareness rates, the more traditional audiences were also more likely than non-traditional audiences to indicate that the Bloch Galleries played a role in their decision to visit the museum. (Visitors who have not heard of the galleries cannot be influenced to visit by them, so higher awareness rates among certain audiences naturally leads to higher influence rates among those same audiences.)



Significant difference in influence rates by age and frequency of visitation (Fisher’s Exact Test, $p < .05$).
Difference in influence rates by ethnicity was not significant.

Conversion Rates

The overall conversion rate was quite high, with 81% of visitors who had heard of the Bloch Galleries also indicating that the galleries played a role in their decision to visit. Looking at the conversion rates for specific audiences is challenging due to the smaller sample size of visitors who were aware of the Bloch Galleries before visiting. However, within the small samples, the data suggests that the non-traditional audiences had conversion rates that were essentially equal to the more traditional audiences. If they had heard of the Bloch Galleries, non-traditional visitors were highly likely to say that they played a role in their decision to visit the museum. This data suggests that if the museum can increase awareness of the Bloch Galleries among non-traditional audiences, they are likely to be interested in visiting.

CONVERSION RATES (% of visitors who were aware of the Bloch Galleries who said they influenced their decision to visit the museum)

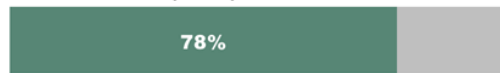
81% of visitors who had heard of the Bloch Galleries before visiting said the galleries played a role in their decision to visit the museum. Traditional and non-traditional audiences had similar conversion rates.

Historically Represented Audiences

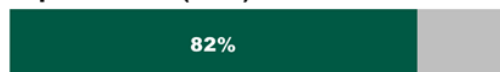
Baby Boomers and older visitors (n=24)



White visitors (n=36)

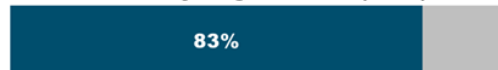


Repeat Visitors (n=33)



Underrepresented Audiences

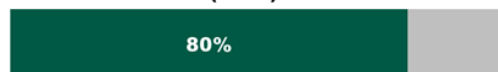
Millennials and younger visitors (n=12)



People of Color (n=7)



First-time visitors (n=10)



No significant difference in conversion rates by age, ethnicity, or frequency of visitation.

Overall Response to Galleries

Finding #2: Visitors were highly satisfied with their experience in the Bloch Galleries. In addition to the quality of the artwork itself, visitors noticed and appreciated the gallery design, including the open flow, lighting, wall color, etc. Interestingly, the inclusion of the decorative arts in the galleries (in addition to painting and sculpture) was specifically called out as something that enhanced the visitor experience.

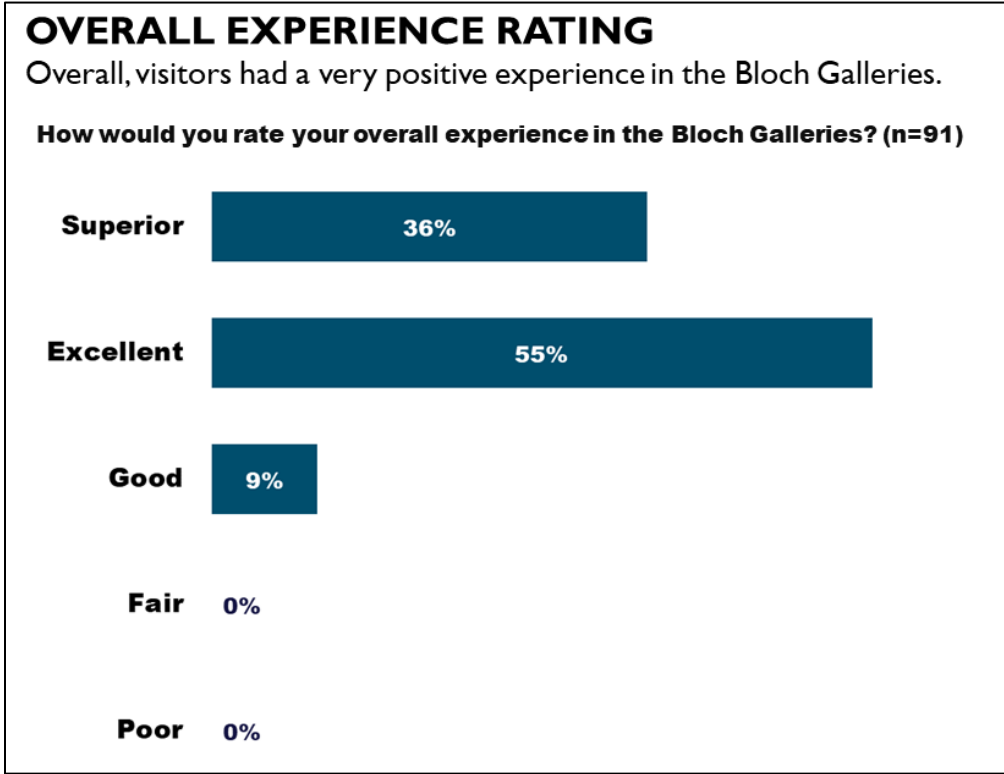
Overall Experience Rating

The study used the Overall Experience Rating (OER) measure to ascertain visitor satisfaction. (The OER question was asked during the Gallery Debrief Exit Interviews.) The OER is a simple satisfaction question developed by audience researchers at the Smithsonian Institution's Office of Policy and Analysis. Study participants were asked to rate their overall experience in the Bloch Galleries on a five-point scale (Poor, Fair, Good, Excellent, Superior). The OER allows us to distinguish the most enthusiastic visitors (i.e., those who gave "Superior" ratings) from those who are simply satisfied (i.e., those who provided "Excellent" ratings).

OER ratings for the Bloch Galleries were quite high. More than one-third of visitors (36%) rated their overall experience in the Bloch Galleries as "Superior", while 55% of visitors gave "Excellent" ratings. Typically, when analyzing OER ratings, "Poor," "Fair," and "Good" are combined to create one category of "Less than Excellent," representing visitors who were

dissatisfied with their experience in some way. In this study, however, only 9% of visitors rated their overall experience as “Good”, and no visitors gave “Fair” or “Poor” ratings.

Data from the Smithsonian Institution, which has been using this scale for many years, reveals that excellent ratings are fairly stable at about 50%, but superior and less than excellent ratings are highly variable. Exhibitions at the Smithsonian Institution have an average superior rating of 20%, with less than excellent ratings averaging 30% (Pekarik, 2014). Given these comparable examples, the 36% superior rating for the Bloch Galleries is quite high.



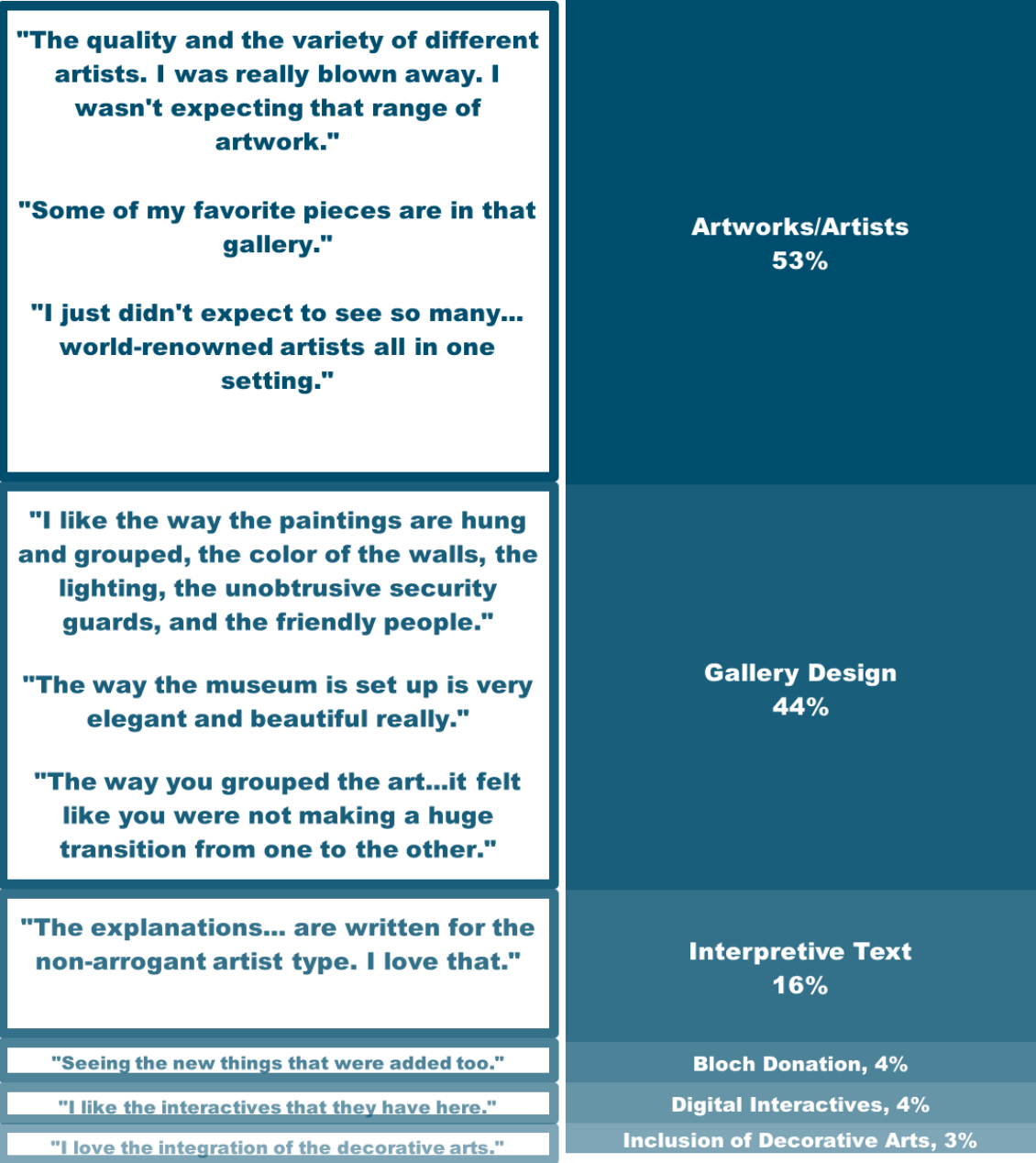
Visitors were also asked to expand on the reason for their rating. Consistent with the high OER, most visitors provided positive comments about their experience. As shown on the chart below, most commonly mentioned were the quality of the art and the gallery design (layout and organization of artwork, wall colors, lighting, open flow, quantity of artworks, etc.). It is noteworthy that such a large percentage of visitors mentioned the gallery design as a reason for their high rating, suggesting that visitors noticed and appreciated these aspects of the experience. Smaller numbers of visitors commented on another aspect of the experience, such as the interpretive text, Bloch Family artwork donation, the digital interpretive elements, or the integration of the decorative arts (in addition to painting and sculpture) in the galleries.

About 11% of visitors commented in relation to how the experience could have been improved, although there was not a lot of consistency in terms of specific suggestions. Comments included too many crowds in the galleries, a desire for more representation from particular artists,

difficulty with wayfinding, lack of awareness of the availability of an audio or guided tour, and lack of clarity around which artworks were Bloch Family gifts.

STAND OUT GALLERY COMPONENTS (n=91)

The artworks and artists on display and the gallery design were mentioned most frequently as the gallery components contributing to a high quality experience.



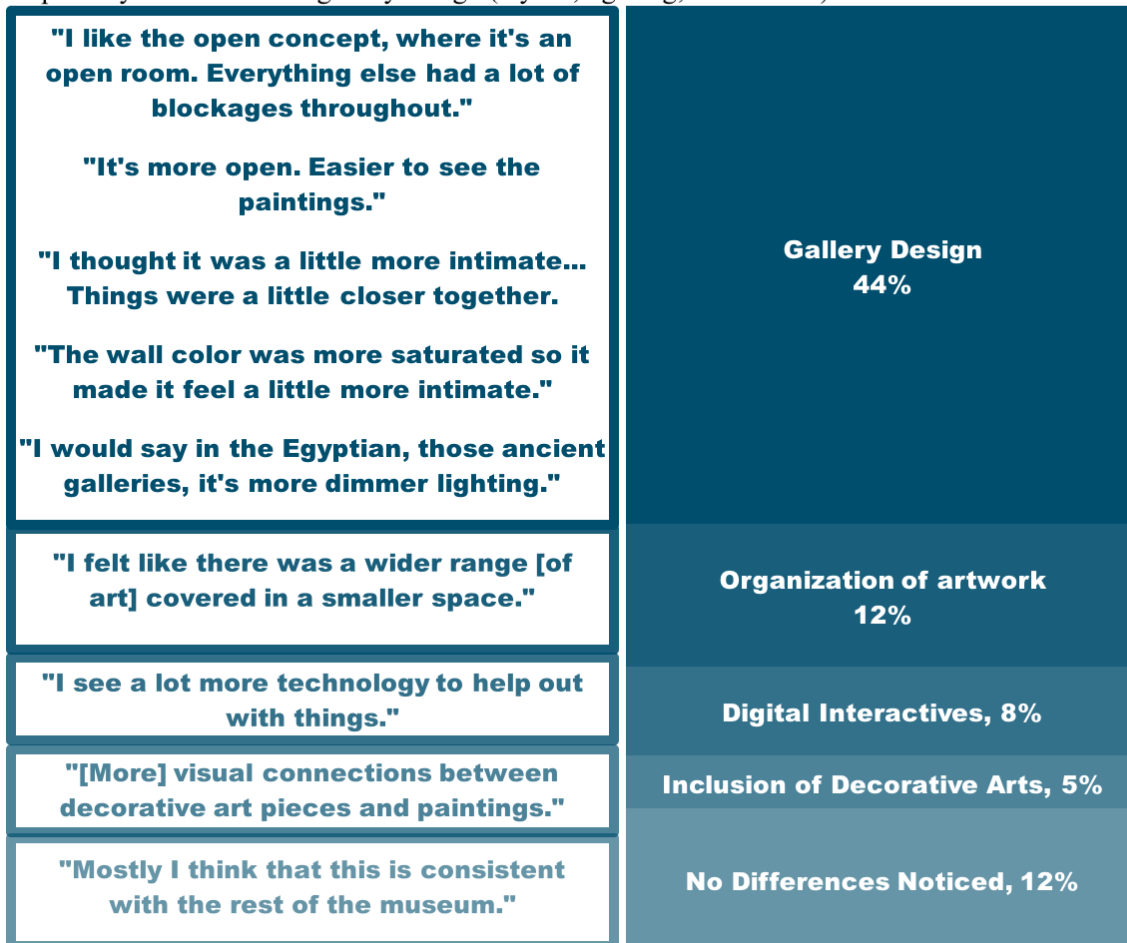
Some visitors mentioned more than one component. As a result, percentages do not total 100%. This chart does not include miscellaneous comments (15%) or suggestions for improvement (11%).

Differences Between the Bloch Galleries and Other Parts of the Museum

As part of the Gallery Debrief Interviews, visitors who had visited other parts of the museum (n=66) were asked whether they noticed any differences between the Bloch Galleries and other areas of the museum. Other than differences in the types of artwork on display, most of the responses reflected the gallery design (e.g. room layout/flow of the galleries, lighting, wall colors). Smaller numbers of visitors mentioned the organization of the artwork, digital components, and the integration of the decorative arts, as well as other miscellaneous differences. Just over 1 in 10 visitors said they did not find the Bloch Galleries to be particularly different than the rest of the museum.

DIFFERENCES NOTICED (n=66)

Visitors noted differences between the Bloch Galleries and other areas of the museum, especially in terms of the gallery design (layout, lighting, wall colors).



Some visitors mentioned more than one difference. As a result, percentages do not total 100%. This chart does not include differences in types of art (24%) or miscellaneous comments (17%).

Change in Opinion of the Nelson-Atkins Museum of Art

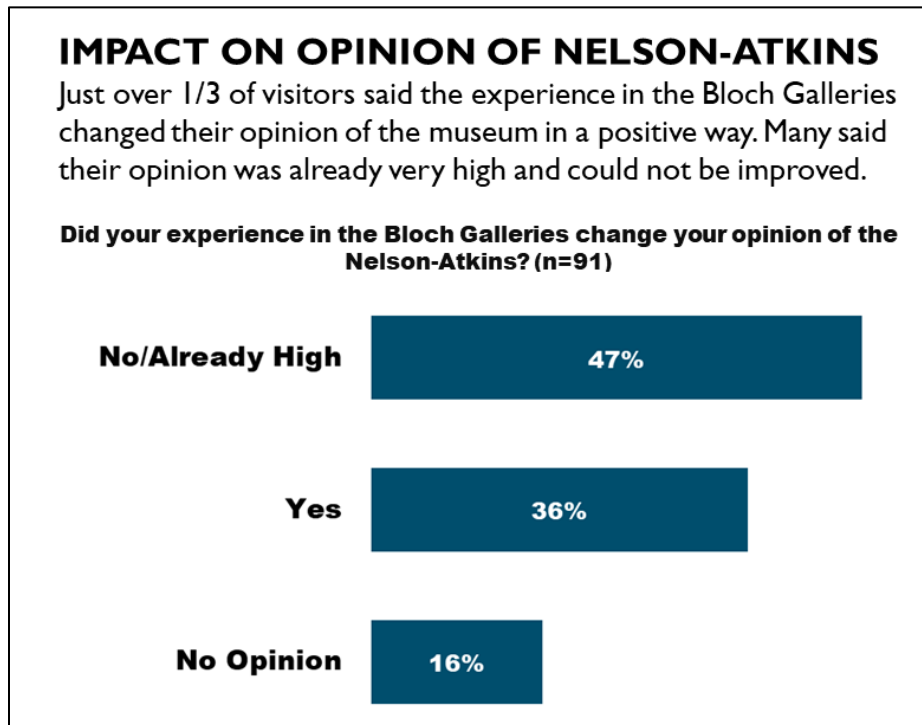
Finally, visitors were also asked if their experience in the Bloch Galleries had impacted their overall opinion of the museum in any way. In general, visitors reporting overwhelmingly positive feelings about the museum. About half of visitors indicated that the experience did not impact their opinion of the museum because they already had a very high opinion of the museum. About one-third said that their experience had impacted their view of the museum in a positive way, although these comments tended to be very general and did not include much specificity about how their opinions had changed. Some representative comments in this category included:

- “I’d say it just continued to improve it. I didn’t have a bad opinion before, but it’s even stronger now.”
- “Well, we know it’s fantastic and always will think that. And this is one more part of it that makes it even better.”
- “I think [it] just improved it. It’s always a nice experience, but I think that they’re really well done.”

A few people did provide more specific comments about ways that their opinion of the museum had changed. For example, one visitor commented:

- “It certainly made me think that there was greater sensitivity to creating critical connections, critical thinking about relationships between works of art, so rather than a linear approach or a chronological approach... I got a greater sense that there was a dialogue going on between things.”

About 16% of primarily first-time visitors said they did not have any prior opinion of the museum, so could not comment on whether their opinion had changed.



Engagement with Interpretive Elements

Finding #3: Overall, visitors reported using analog interpretive elements (e.g., object labels, wall panels) more frequently and more thoroughly than digital elements. The youngest visitors (Generation Z) did tend to take advantage of the digital components, however, with nearly 3 out of 4 Generation Z visitors reporting using at least one digital element. With the exception of the Detour app (which had particularly low usage due to lack of awareness), self-reported usage of the other digital components was fairly similar, with about 15-20% of visitors indicating that they used each individual component. There was wide variation in self-reported thoroughness of engagement, though, with Gallery+ users indicating particularly low engagement.

Use of Interpretive Elements

In renovating the Bloch Galleries, the Nelson-Atkins took the opportunity to experiment with new visitor engagement and interpretation strategies, including both digital and analog elements. The evaluation study sought to understand how visitors were using these interpretive components and what their general preferences were for how to engage with these resources in an art museum. There were no analog interactive experiences (e.g. tactile experiences, hands-on interactives, etc.) in the Bloch Galleries, so we cannot draw conclusions about visitors' preferences related to those types of experiences.

As part of the Gallery Debrief Interviews and the PMM exercise, visitors were asked which interpretive elements they used and how thoroughly they felt they engaged with each component. In general, visitors were more likely to report using the traditional, analog interpretive materials (e.g., object labels and wall panels), with a large majority reporting that they used these elements. Visitors who used the interpretive text components provided positive comments, particularly about the thematic and historical content offered:

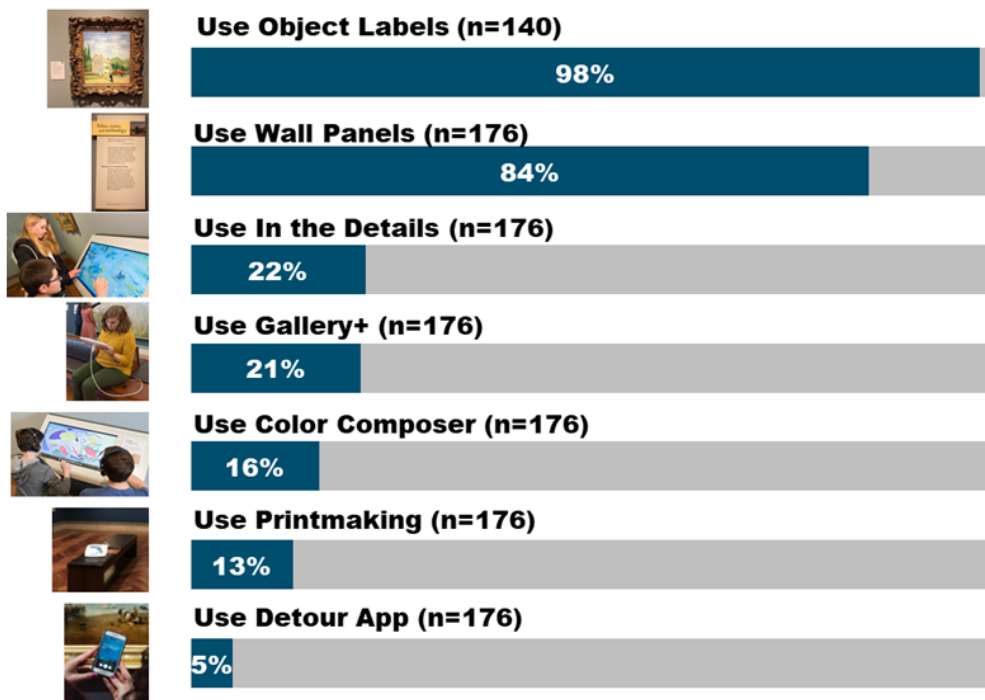
- “It provided the information I needed. It kind of gave some background as to the overall theme of why things would happen at that time in the history. I also like history, and I think the wall panels gave a lot of the history behind what was going on, as to what would have inspired some of the paintings and art.”
- “I just really like learning more about those particular people, that particular artwork and just the history. It’s just so rich, and I just really like stopping and enjoy reading, learning a little bit more about those things.”
- “She’s kind of a history buff.... And I’m more of on the art side, and so it brought us both into the same sphere.”
- “Having that background helps me understand the artist a little bit more and then sometimes it makes me change my perspective.”

About 40% of visitors reported using at least one digital element. With the exception of the Detour app (which had particularly low usage), the use of the individual digital components was fairly similar, with about 15-20% of visitors reporting using any particular digital component. The breakdown of use of specific interpretive elements (digital and analog) is as follows.

USE OF INTERPRETIVE ELEMENTS

Almost all Bloch Galleries visitors reported using the object labels and wall panels, with lower reported use of digital elements

% of visitors who reported using each interpretive element



Object labels were inadvertently left off the initial instruments. As a result, there is a slightly smaller sample size for object labels.

In the Gallery Debrief interviews, visitors who did not engage with digital elements were asked why they thought they didn't engage. For the Detour app specifically, lack of awareness of the app was the primary reason for low usage. About half of respondents who were asked specifically about Detour (n=56) reported not using Detour because they were not aware of it (52%). Other reasons for not using Detour included: technological barriers (not having an iPhone, not wanting to download an app, phone out of batteries, etc.) (21%); the personally unappealing nature of the app (20%); and time (11%). Some people mentioned more than one reason.

For the other digital components, the primary reasons why visitors (n=83) did not use them was because they didn't notice them (35%); these types of experiences don't appeal to them (33%); or they lacked time (20%). These reasons varied, however, depending on the number of digital components with which the visitors engaged. For digital non-users (people who did not engage with any digital components), the primary reasons for not engaging were that digital experiences don't appeal to them (33%) and lack of time (31%). For digital browsers (people who used only one digital component), most said they didn't use the other digital components because these types of experiences don't generally appeal to them (64%). For digital users who

used multiple components, the main reason why they didn't use other components was simply that they did not notice them (68%).

As part of the focused interviews, participants were asked why they chose to engage with one digital component over another. Regardless of the component they were using, the large majority of participants said that they had not noticed the other options. However, there were a few interviewees who articulated a reason for engaging with one over the other. For In the Details and Color Composer, a few interviewees said that the larger touchscreen drew their attention and invited them to engage.

- "It's big ... It occupies a big enough space that says come play."
- "That one's bigger. A little more inviting."
- "It was bigger, and I didn't have to pick it up."

A few interviewees also articulated some confusion about what Gallery+ was.

- "I did see the iPad, but I thought that was more of some kind of a mechanism to look up what gallery you were at or a direction finder or something. I didn't think it was the same as this. This one was intended for play. The other one that I saw looked more official, like a catalog or something."
- "I feel like that I just didn't really know what the iPads did. With that one over there [In the Details], it was just clear that it was used to examine paintings and everything."

Digital Users

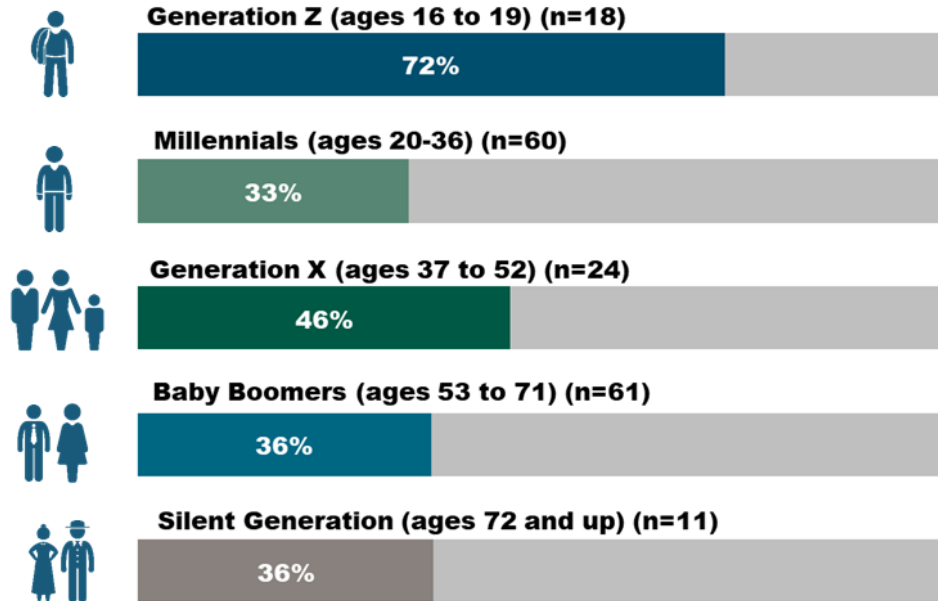
There were not many demographic or psychographic differences in the audience in terms of those who use digital resources and those who do not. One notable difference is that visitors in Generation Z (born after 1998) tended to be digital users. Although the sample of visitors in the study in this age group was fairly small (n=18), a large majority of visitors in this age group (72%) reported using digital experiences. Interestingly, millennials (who are often perceived as heavy digital users) were not overrepresented in the digital user category. Only 33% of millennials reported engaging with digital experiences, which was similar to older generations (46% Generation X, 36% Baby Boomers, 36% Silent Generation).

In terms of other demographics, there were few differences in digital use. For example, here did not appear to be differences in digital use by gender, ethnicity, visit frequency, or membership status.

WHO ARE DIGITAL USERS?

40% of Bloch Galleries visitors reported using one or more digital components. The youngest visitors (Generation Z) were most likely to engage.

% of visitors who used one or more digital components (by age)



Significant difference in digital use by age (Chi-square, $p < .05$).

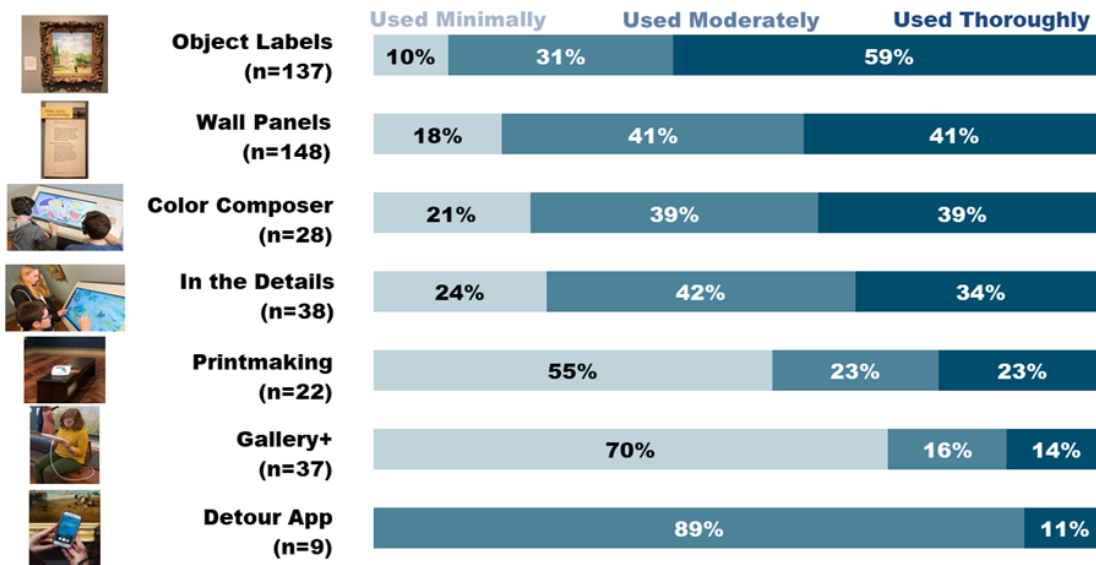
Depth of Engagement with Interpretive Elements

Visitors were also asked how thoroughly they engaged with each of the interpretive elements that they used during their visit. The purpose of this question was to better understand the participant's perception of his/her engagement. This question was not meant to serve as an actual measure of thoroughness of use/depth of engagement. Visitors reported using object labels most thoroughly, with a majority of users indicating that they used them thoroughly. Visitors also reported using the wall panels, Color Composer, and In the Details fairly thoroughly, with at least 75% of users indicating that they used the interpretive element at least moderately. Visitors reported low engagement with the printmaking component and Gallery+. The Detour app was used only by a small number of visitors (n=9), but these users reported using it moderately. Findings from the focused interviews, described below, offer some insight into why engagement was lower with some of the digital components than others.

DEPTH OF ENGAGEMENT

Thoroughness of engagement with interpretive components varied greatly, with Gallery+ users indicating particularly low engagement.

How thoroughly did you use each of the following? (Users only)



Because the Gallery Debrief interviews showed that Gallery+ users reported particularly low engagement with the Gallery+ iPads (compared to the other analog or digital interpretive components), the focused interviews attempted to better understand this finding. In the focused interviews, users who indicated that they engaged only minimally with Gallery+ were asked why they thought they didn't engage more thoroughly. The main reason given (mentioned by almost half of interviewees) was lack of time or because they were following other people in their group who were ready to move on. There were two other potentially interesting response categories, each of which were mentioned by about one-fifth of interviewees. The first included some disappointment with the experience (e.g., not being able to find what they were looking for or losing interest). Comments related to this included:

- "The fact that I couldn't find grasshoppers."
- "Well, like I said, the artist thing was disappointing. And the game was a little disappointing."
- "Because I'm not much of an art person. I don't have any interest in art or[sic] do I care about it, frankly."

The other reason was that participants didn't want their attention diverted from looking at the artwork. Some comments related to this included:

- "Because we were just kind of looking around. I'm more interested in seeing the art."
- "I don't want to get too sucked into ... Well, there's all this around me. I can do this at home."

One visitor being interviewed about In the Details commented that they did not engage with the Gallery+ for this same reason:

- “I enjoyed looking at the art. I didn’t want to be distracted with the little iPad.”

Feedback on Specific Digital Interpretive Elements

Finding #4: Digital experiences that invite visitors to see the art in new ways can be highly impactful. Digital experiences work best when they are clear and intuitive; when they behave in predictable ways in response to the user; and when the experience matches the visitors’ expectations and desires during that moment of their visit.

Focused interviews for three of the digital elements (Gallery+, In the Details, and Color Composer) generated insights into the types of digital experiences that can be most impactful, and where challenges can arise. The following summarizes the main findings for each digital element and then goes into detail into specific subfindings that emerged from the focused interviews.

- In the Details was the most successful of the three digital components explored through this study. Participants had a clear idea of what they would be able to do with In the Details and tended to approach the experience with a clear purpose. Participants appreciated the clear connection between the digital component and the art and felt that engaging with it provided them with new insights about the art around them. The only real issue that came up with In the Details was some lack of clarity around the capabilities of the component. That is, some visitors were unaware of the options available to them to further zoom in and out or move to a different area of the artwork.
- Participants really liked the idea of Color Composer, although the functionality resulted in a less positive user experience. Participants were clear on the experience being offered and approached with purpose. They liked having the opportunity to have a hands-on, interactive, creative experience in the galleries and often became highly invested in their creations. Many were interested in being able to access their creations later or share them with others. The lack of clarity, however, about the “rules” of the interactive was frustrating to users. Participants wanted to understand how the resource would respond to their actions, so that they could design their creation as they intended. There was also the opportunity with Color Composer to draw a stronger connection to the related artwork, particularly the Kandinsky painting that inspired the interactive.
- Participants struggled somewhat with Gallery+. There seemed to be less clarity about the available experience, resulting in fewer visitors who approached the digital component with a clear purpose. Many were just checking it out without a complete understanding of what functionality the experience offered; others simply happened upon it when they were sitting down. Perhaps as a result of this lack of intention or purpose, visitors perceived of their engagement as minimal and struggled more than users of the other digital components to see how engaging with Gallery+ may have enhanced their experience in the galleries or impacted their experience of looking at the art. Some also expressed disappointment in the experience (not being able to find what

they were looking for) or felt that the experience took them away from looking at the art rather than enhancing their enjoyment of it. Certain sections were also underutilized, particularly the events section and two activities, Rants and Raves and Matchmaker. Some aspects of the experience did show promise. Participants especially enjoyed the “What Artist Would You Be?” quiz and about one-quarter indicated that their experience with Gallery+ inspired them to look for specific artworks or artists in the galleries.

Reasons for Stopping at Digital Components

Subfinding #4a: Participants had different reasons for electing to engage with particular digital components. Participants using In the Details reported discontinuing use because they wanted to look more closely at the artworks. Participants using Color Composer, though, were interested in having a hands-on, interactive experience. Participants using Gallery+ seemed to be less intentional about their use of the component, often saying that they stopped because they simply wanted to sit down and they noticed the iPad was there and became curious as to its purpose (e.g. access to online collection, museum orientation information, docent tool, etc.).

In the Details

Most participants who were using In the Details reported stopping to use the component because they wanted to look more closely at the artworks. Participants seemed to have a clear idea of what the experience offered and bore a specific interest in engaging with it. Some participant comments about why they selected this digital element included:

- “I just really like of the idea of getting an up-close picture.”
- “I wanted to learn more about brushstrokes, and it really dove in in a way that you feel afraid to when you look that close at the paintings, you don’t want to get too close to them.”
- “I noticed that I could actually see the final strokes, and that intrigues me. You know, it makes me feel like I’m actually watching the artist do it.”

Color Composer

Most participants who used Color Composer reported that they discontinued use because they wanted to have a hands-on, interactive experience. Again, it seemed that they had clarity on the resource’s functionalities and wanted to experience them. Comments included:

- “The interactions. I like to touch things and there’s not a lot of things to touch here.”
- “I typically like hands-on things kind of to jump in and have an experience and play with something. I don’t do well in museums typically because I can’t touch anything.”
- “I think it’s just because we’re both interactive people. We like to do activities while we’re doing stuff.”

Gallery+

With Gallery+, there were some interviewees who approached the device with a specific intention (e.g., wanting to learn about a specific painting or generally seeking more

information). Two participants specifically said they were interested in learning more about the grasshopper that was recently discovered stuck in the paint in a van Gogh painting. Comments included:

- “There’s a plaque attached to the van Gogh painting [that] specifically called out the Gallery+. I was trying to find more information on the grasshopper in the painting.”
- “I wanted to learn more about the larger painting, the Monet, behind.”
- “Because I am not educated enough in the art world and so I thought this would be a good opportunity for me to read [about] the art.”

However, a majority of interviewees indicated they approached Gallery+ with much less intentionality. Some said they wanted to sit down and happened to pick up the iPad; others reported more general curiosity about what the iPad was; and several indicated that they thought the iPad was something else (for example, docent tool, another Color Composer; access to the online collection; museum information such as maps, tour info, etc.). Comments included:

- “I don’t know, I guess because it was there. I was curious what it was there for.”
- “I was already sitting here, and they were right here.”
- “Because I was feeling kind of bored.... I’m not much of an art person, so I’m like, “Ooh! Something technological.”
- “I wanted to see ... if you had every piece of artwork inside of the tablet.”
- “I was just tired, and I wanted to sit for a little bit ... I thought it was something that I didn’t have to touch. I thought it was something the people working here have to use. So, I had to sit to figure it out.”

Ratings of Digital Components

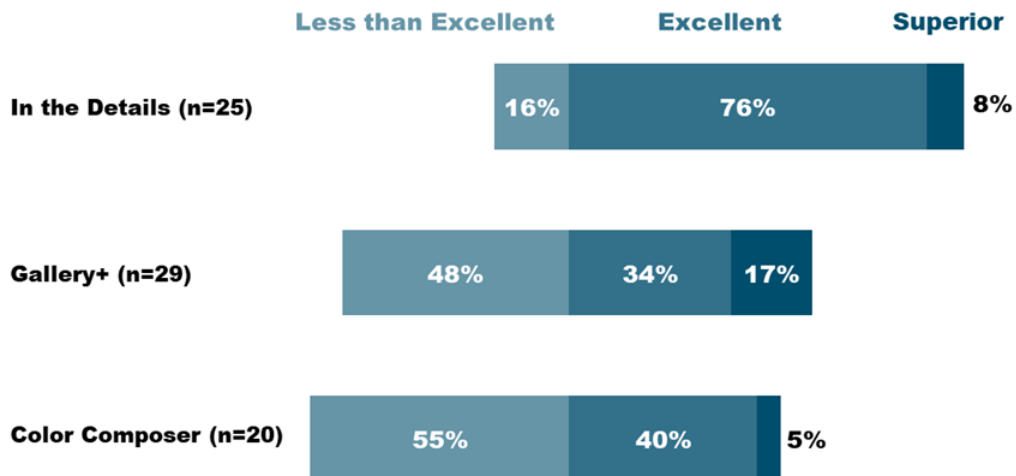
Subfinding #4b: In the Details received the highest ratings of the three digital components included in the focused interviews. Participants seemed to really like that the experience was directly connected to the artworks and helped them see new things about the art that they might not have otherwise noticed. Gallery+ participants appreciated the added content, especially the “Which Artist Would You Be?” quiz, however many had difficulty rating the impact of Gallery+ on their experience in the galleries because they felt that they had not adequately engaged with the resource. Participants liked the hands-on, interactive, and creative nature of Color Composer, but found the user experience frustrating or confusing because they were not clear on the “rules” or expected behaviors of the interactive.

Focused interview participants were asked to rate the digital components in terms of how much they enhanced their experience in the galleries using the following scale: poor, fair, good, excellent, or superior. Because this question was asked while the visitor was still in the galleries, and not as they were leaving, the participants’ responses may have been influenced by where they were in their Bloch Galleries visit. That is, people earlier in their visit may have had difficulty describing how the digital component enhanced their experience in the galleries. Nevertheless, In the Details received much higher ratings than Gallery+ or Color Composer.

RATINGS OF INTERACTIVES (FOCUSED INTERVIEWS)

In the Details received the highest ratings in terms of how much it enhanced the experience in the galleries. Color Composer received the lowest ratings.

How would you rate this interactive in terms of how much it enhanced your experience in the galleries? (Focused Interviews)



In the Details

When asked to provide an explanation for their rating, users of In the Details described how the digital component enhanced their experience of looking at the art.

- “I think what I liked about it was that it allowed you to look more closely at a painting. I wouldn’t stick my face that close to a painting here because someone would yell at me.”
- “It just allows you kind of a more in depth look than what you get just standing in front of a painting, kind of a greater level of appreciation being able to zoom in on a painting. I think it is really kind of a unique aspect.”
- “I just really like being able to look at the paintings up close because when you can look at them from far away and then up close, you can see how the artist really got the painting to look the way it did.”
- “I think it's kind of interesting to be able to see some of that because you can't get up close to touch and see. To be able to do it interactively is kind of cool.”
- “You could see everything in the painting when you really looked into it. It was just nice to get that personal experience with the art.”

Gallery+

For Gallery+, those participants that gave it an excellent or superior rating felt like the content was good. They also felt that the “Which Artist Would You Be?” quiz was fun and engaging.

- “It was good because I found more information about artists that I didn’t know, and I found things that I was looking for, like some artist information, and where some paintings were.”
- “As I was reading the different artists on the placards, I was able to go in and see what styles they were known for and learn more about the people that they referenced, even the influences of them, so it’s kind of cool to go back through and see that.”
- “It was a fun added experience to enjoying the art also. We’re focusing on the personality quiz... to just see where you rank up against these people.”

Participants who provided lower ratings for Gallery+ often commented that they did not explore it very thoroughly. Other than lack of exploration, there were not many consistent explanations for the lower ratings.

- “I haven’t played around a lot in it, but... it seems like it would help.”
- “I obviously didn’t spend too much time with it, however I do like the way it is structured in terms of a visual aid.”

Color Composer

For Color Composer, participants that gave it an excellent or superior rating liked the interactive, hands-on, and creative nature of the interactive and felt that it enhanced their experience of looking at the art.

- “I think it’s cool, because it’s putting all of your ... well, besides smelling it, I guess it’s putting more senses involved into your experience with art, so I like that.”
- “I just don’t think I’ve seen anything quite like that, where you can make your own art there, at a museum.”
- “It gave me more insight to what is behind painting and the reasoning behind why artists do what they do.”
- “I thought it was good because I got interested in reading more about the artists around it. Well I read it and then kind of understood the music part a little bit better after I looked at some of their other paintings.”

The actual experience caused frustration, however, for many participants as they were confused about why different parts of their drawing would change color or appear to seemingly randomly disappear as they were working on it. In addition, the “share” function, where participants could share their composition with themselves via email or text, was not working during the data collection period, which disappointed some participants. A few participants were also dismayed by the limited number of sound options available on the device. Some comments related to this included:

- “The other one that was a little frustrating was once I began to explore and find the good combination of the drawing with the sound, [but] as I added to it the machine . . . seemed to be imposing its own sequence or rules and that became frustrating.”
- “I felt like the user interface was a little clunky at first, like we couldn’t open it and then, for some reason, when I was drawing the shapes at first, it was filling them in and then it stopped filling them in, even though it seemed like I was closing them.”

- “At the very end, it’s confusing with the sending it to yourself.”

Impact of Experience of Engaging with the Art

Subfinding #4c: To some degree, participants were able to articulate ways in which engaging with all the digital components impacted their experience of looking at the art. In the Details helped them notice new things and appreciate the artistic process. Color Composer helped them appreciate modern and abstract art and better understand the complexity of art’s creation. Gallery+ enhanced their knowledge and inspired some people to look for specific works of art in the galleries. The connection to the art, however, was clearer for In the Details, with more Color Composer and Gallery+ users expressing difficulty in making a connection to the art or seeing the experience as more of a break from the experience of looking at the art.

Interviewees were also asked about how engaging with the digital component impacted their experience of looking at the art in the galleries, if at all. While participants articulated ways that all three digital components impacted their experience of looking at the art, the connection appeared to be clearer for In the Details than for the other two components.

In the Details

For In the Details, participants commented that they noticed new things about the artworks that they had not before and could better acknowledge the process of painting.

- “I came away with a greater appreciation for art and a little better understanding of the processes of painting.”
- “I think it makes you take a closer look once you see it and go, ‘Oh, now I know that there’s this there.’ And so, then you may try and see it in the art itself.”
- “I definitely think you have a greater appreciation. You know, paintings can look simple until you zoom in and see the fine detail and then you realize how complex they really are.”
- “I feel like it just gave me a better understanding of how the paintings are made and what exactly, the small details that they’re making in their paintings.”

Color Composer

For Color Composer, participants reported that trying to make their own composition gave them more appreciation for the more modern and abstract art around them and helped them to better understand the overall complexity of creating a work of art. Several also commented on their improved understanding as to how artists used music as inspiration.

- “Well it kind of changed the perspective when you found out that, I can’t remember the name of it, but when you can hear things when looking at certain colors or things... [That kind of] changed how you looked at the paintings. You wonder what they heard.”
- “I put myself in the artist’s position, listening to the sound of his strokes.”
- “I think about the colors and the shapes and how they move together.”

Gallery+

For Gallery+, participants felt that the experience enhanced their knowledge. About one-quarter of participants also said the experience made them want to look for specific works of art in the galleries.

- “Maybe gave me the inspiration to look into that artist or see why I am similar to that artist.”
- “It was kind of cool, because I wanted to go see those things now that I see them on the iPad.”
- “Just the paintings are only as interesting as the story behind them, too. It only enhances the experience to know more about it.”

For both Gallery+ and Color Composer, more participants had difficulty articulating how engaging with the digital component impacted their experience of looking at the art or saw the engagement as more of a break from, rather than enhancement of, engagement with the art.

- “It was definitely nice to take a break from, like I said, the observation. It helped mix things up.” (Color Composer)
- “We did only use it a little bit, but kind of like what I said, it just is nice to have just an added feature to experience. I knew the art was going to be here, but I didn’t know things like this were.” (Gallery+)
- “I mean, it was nice to see something like that was here. I guess it really didn’t help me with what I was looking for, but it seems it would help people overall.” (Gallery+)

Understanding of Purpose of Digital Component

Subfinding #4d: Participants seemed to have a somewhat clear understanding of the purpose of In the Details as a tool to look closely and see new things about the art. For Gallery+ and Color Composer, a greater number of participants perceived the components as primarily tools for engaging new audiences but did not articulate a clear understanding of the intention behind the components.

In the Details

Interviewees were asked what they saw as the museum’s intent of placing the digital interpretive components in the galleries. Not surprisingly, for In the Details, participants felt that the museum was intending to help visitors look more closely and see new things about the artworks. They also indicated that the purpose was to deepen understanding and increase awareness of the artistic process.

- “I think that it just really helps people get different views out of the artwork just being able to look at it in a different way for however much time they want.”
- “Mainly just for people that want to kind of find inspiration from paintings, I guess, and see how other people are using their techniques to paint. And if you want to see any up-close details or anything.”
- “Probably for people that are really interested in going beyond just viewing, and getting to see the finer details of the works. I think it’s more for someone who is truly

interested in how the paintings are produced. I think it would be a fantastic tool for teaching. I'm an art teacher, so that's why I love it."

Gallery+

For Gallery+, there were a few participants who clearly understood the intention to provide contextual information about the artworks:

- "Probably just to increase your understanding or historical perspective or context."
- "It's obviously designed to get people to dive deeper and to get the historical context on the artist, when the piece was created, technology, any of those things."

For the most part, however, participants spoke in more general terms about Gallery+ as a tool to provide more information:

- "I would assume it's to give to me some background information."
- "I figure it's to give people that are here more information on the artists and their stories."
- "Probably to give you more information and be a little more helpful if you're looking for a certain artist or piece."

About half of interviewees felt the primary purpose of Gallery+ was to provide a way of engaging new audiences by bringing digital experience into the galleries.

- "I would say like some people maybe feel like they... don't know how to engage with art and this is an easier in, I guess. Something accessible maybe."
- "I think it would probably [be] to bring the digital era into a gallery, and also bridge the gap between the young and the [traditional audience]."
- "I know kids nowadays like technology, so when they see an iPad they like to go over to it and see what's going on with it. So, it appealed to the [younger] generation."

Color Composer

About half of Color Composer users saw the intent of the interactive as providing insight into the artistic process through the experience of creating their own art.

- "I think that it is educating people about the beliefs of the composers. It's getting us more engaged with the artwork. So, going from just passively participating in the art to actually being able to create a little bit more."
- "I think the interactive machine like this is a kind of common ground between the audience and artist to participate in the design process."
- "For it to open the eyes of people who aren't creative or basically respect the idea behind the artistry of these paintings, and to really fully understand the scope of what goes in the art."

However, similar to Gallery+, about half of participants saw the primary purpose of Color Composer as providing a way to engage new audiences:

- "At first, I thought it was to keep the kids occupied. The kids are bored in here, so if they see something interactive, they want to go for it."
- "I guess it would be great for kids or teenagers who haven't fully appreciated the art yet. So, it would a good way to intrigue them."

- “To engage with people more, maybe who aren’t totally in the art scene, maybe come here with friends or siblings, to help draw them in to some of the art stuff.”

Usability of Digital Components

Subfinding #4e: There were a few usability issues that arose with each digital component, however Color Composer was the most problematic. For In the Details, some participants were unaware of the available capabilities of the component, particularly the ability to adjust the level of zoom. For Gallery+, the main issue was that certain features were underutilized. This may be due to lack of clarity around the section titles or the way that the links between sections are set up. For Color Composer, participants had difficulty understand the “rules” of why certain things happened in the experience and were also frustrated by the “share” option not working during the data collection period.

Part of the focused interview study sought to explore how users are engaging with the digital experiences and whether there are any usability issues that arise. While there were some such issues with each of the digital components, the most concerns arose around Color Composer.

In the Details

In the Details had the least usability issues, with about three-quarters of participants reporting no issues. The main usability issue with In the Details had to do with lack of awareness of some of the features (e.g. not realizing that you could move to different parts of the painting or that you could adjust the zoom). Some participants reported minor issues with touchscreen sensitivity. Interviewees were specifically asked if they felt that the amount of zoom was sufficient. About half of participants reported the zoom was sufficient; one-third wanted to be able to zoom in further; a few said they wanted to be able to zoom all the way out to see the full artwork; and the rest reported that they were not aware that the zoom could be adjusted. Participants were also asked if there were any features they wanted added to the experience. Most said they could not think of anything. A few said they wanted a larger selection of artworks, more in-depth content, or thought that In the Details should be available in more locations in the museum.

Gallery+

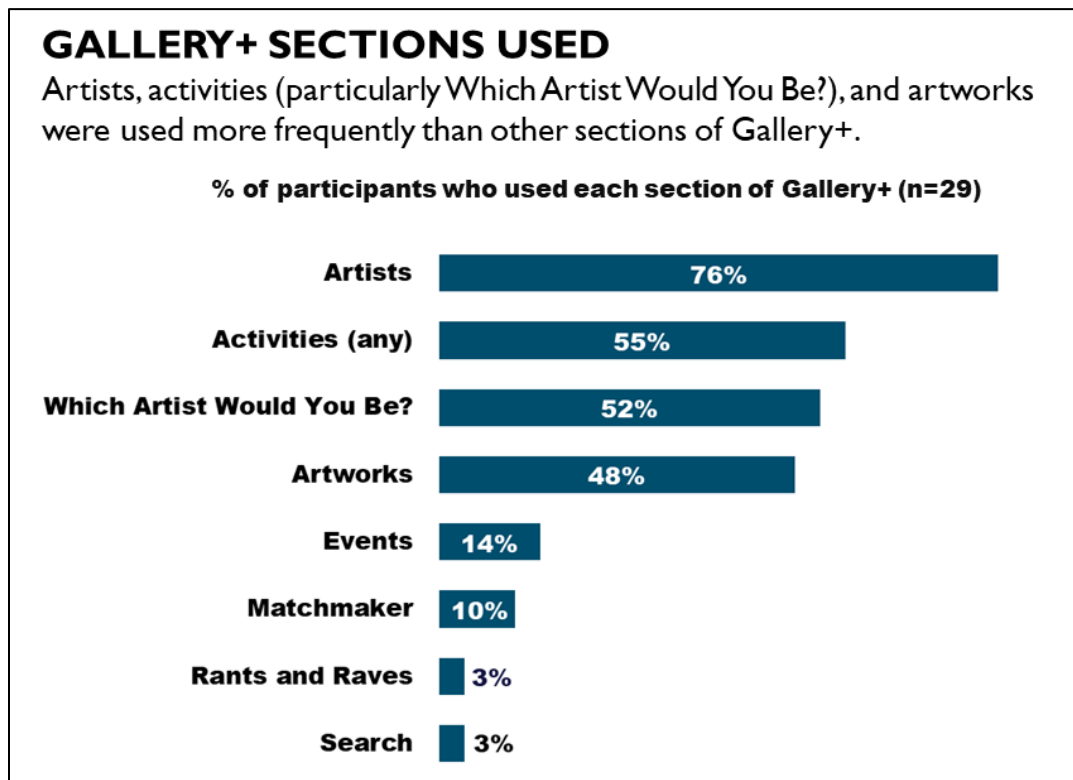
There were also relatively few usability issues with Gallery+, with about 60% of participants reporting no issues. A few participants mentioned issues with touchscreen sensitivity or interface glitches; others noted some initial adjustment time needed to figure out how to use the component; and even others had some confusion about the sections (e.g. thinking that events meant museum events or activities meant museum activities such as docent tours).

Participants were also asked with which sections of Gallery+ they engaged. There were four main sections (Artists, Artworks, Activities, and Events) plus a search function. On average, participants indicated that they engaged with two sections. There were some clear patterns of use, with certain sections used much more heavily than others. For example, the artists section

was used most frequently, with three-quarters of participants reporting its use. Activities (particularly the “Which Artist Would You Be?” quiz) and the artworks section were used next most frequently by about one-half of users. The remaining features were used very infrequently.

Interviewees were only inconsistently asked about why they used certain sections and not others. Although this question was not asked consistently, there appeared to be two particular approaches. Either participants came to the Gallery+ looking for specific information and typically used the Artists and Artworks sections in an attempt to get that information or they started with the “Which Artists Would You Be” quiz (which is a permanent link on the home screen) and then followed the link from that quiz, which took them to the artists section.

The events section was only explored infrequently. This may be due to the way the links are set up (e.g., by a permanent link on the home screen to the quiz, which then links to artists). One participant, however, found the section title “events” to be confusing, thinking it instead referred to museum events. Although it is unclear whether this was a broader problem, if it was, it may have contributed to lower use of the events section.



Color Composer

As outlined above, Color Composer had the most usability issues, contributing to the lower ratings for this interactive. Participants were often confused about why the interactive would behave in certain ways that were not intuitive to them (e.g., filling or not filling closed shapes; selecting the colors for overlapping shapes; shapes appearing or disappearing; music playing or not playing). Participants seemed to want more control over these features or to better

understand the “rules,” especially after they had engaged for extended periods of time in creating their composition.

- “Sometimes it would play music and sometimes it wouldn’t when you drew something.... Definitely we were confused about if I would draw something and then sometimes it would disappear and sometimes it wouldn’t, or it would just kind of add a shape there and I’m like, ‘where did that come from?’”
- “I guess I realized if you combine all the corners, that it colors on the inside. I thought that was pretty cool. And then some of them didn’t do that, so I was kind of confused when it actually fills in and when it doesn’t.”
- “I wasn’t understanding why sometimes it was filling it in and sometimes it wasn’t. And I even tried to tap and fill it in, and it didn’t do it.”

About 40% of Color Composer users tried to share their compositions (suggesting interest in this type of feature), however the feature was not working during the data collection period, which also resulted in frustration for the participants.

Color Composer users also seemed not to connect the interactive resource to the Kandinsky compositions specifically. While they did see the interactive as connected to the surrounding artwork, they made more general connections to abstract art as opposed to specific connections to Kandinsky:

- “Maybe because this is like contemporary art, where you can feel free to imitate the artist’s intention of being very Avant Garde.”
- “I think it definitely fits in well where you have it and kind of like the abstract-ish area.”
- “Because everything over there is kind of abstract, less set-in stone, so I feel like that’s more so what people would make. The shapes and things that they would make on the device would be closer to the art that’s around it.”

This may be due to the placement of the Kandinsky slightly to the side of the interactive.

Response to Digital Inclusion

Finding #5: Although self-reported use of and, in some cases, engagement with digital elements was lower than analog elements (e.g., labels, panels, etc.), visitors responded positively to the inclusion of digital experiences in the galleries. Visitors liked that the digital experiences were available for other users (particularly children and younger adults), even if they did not themselves engage with them.

Response to Digital Inclusion

Regardless of whether they engaged with the digital components in the galleries, visitors in the Gallery Debrief Interviews were asked how they felt about the inclusion of digital experiences in the galleries. Nearly all visitors saw them as a positive addition to the gallery experience. Visitors were fairly evenly divided between those who thought digital resources could enhance their own experience in the gallery versus those who primarily see them as a valuable addition for other people. Only 10% of interviewees reported a negative reaction to the inclusion of digital experiences in the galleries.

RESPONSE TO DIGITAL INCLUSION (n=84)

Nearly all visitors felt the inclusion of digital experience in the galleries was positive, even if they were not personally interested in using it.



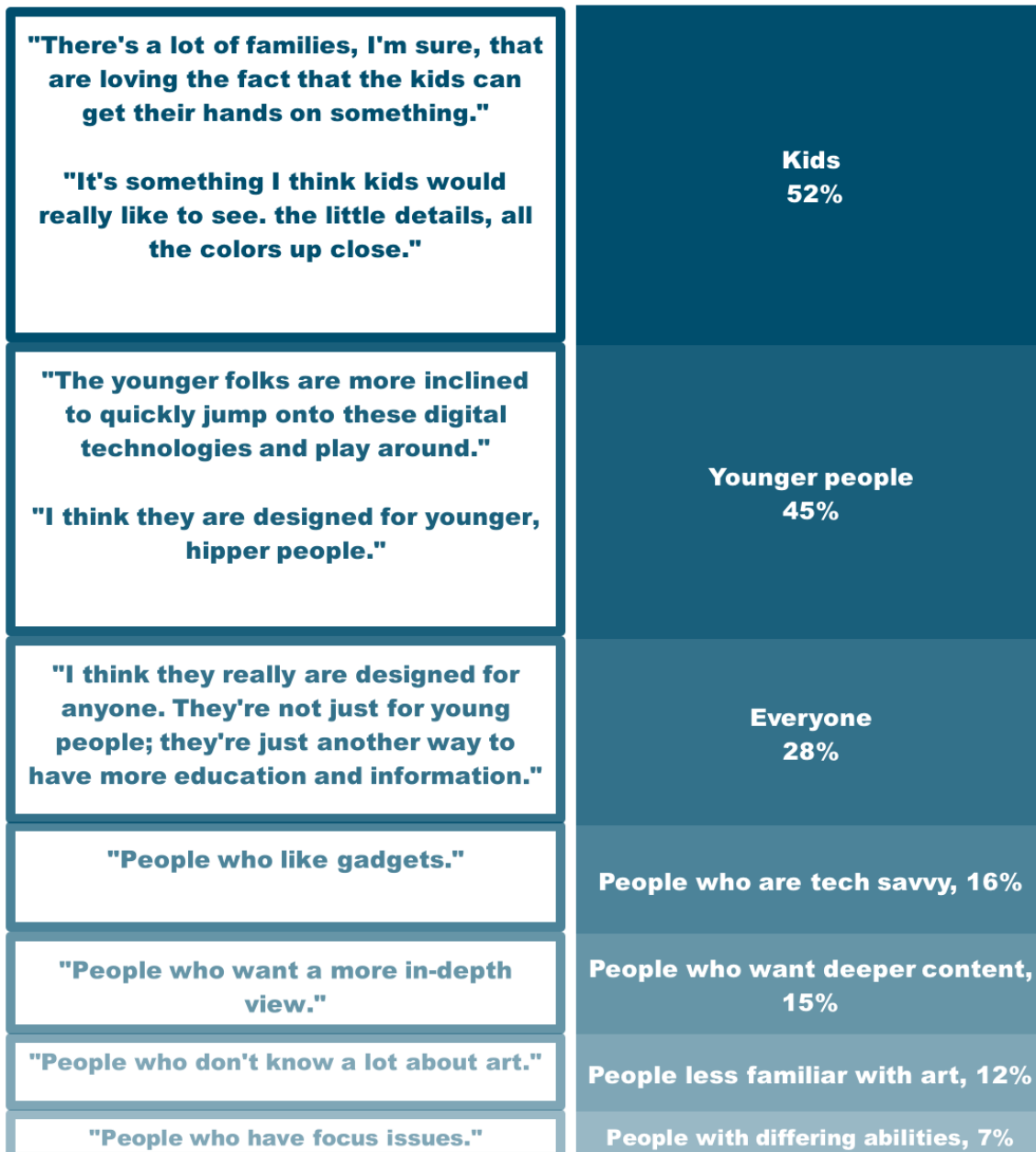
Some visitors mentioned more than response. As a result, percentages do not total 100%. This chart does not include visitors who gave a neutral response (1%).

Perceived Audience for Digital Experiences

Visitors saw digital experiences as primarily benefiting kids and younger adults. There were a wide range of other potential audiences identified as well, including people who are tech savvy, desire deeper content, are less familiar with art, or have differing abilities or learning styles. About one-quarter of visitors felt these types of experiences would work for everyone.

PERCEIVED AUDIENCE FOR DIGITAL (n=85)

Visitors generally perceived of digital experiences as being for kids or younger people.



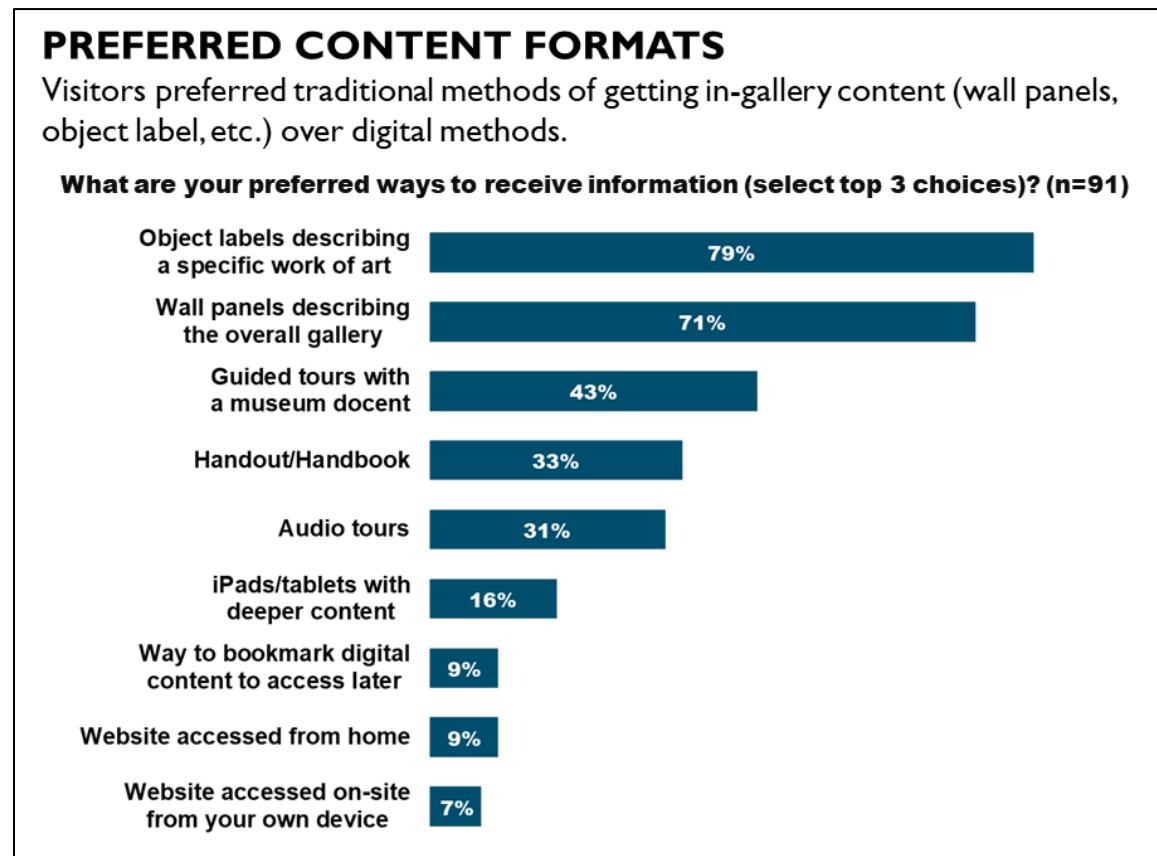
Some visitors mentioned more than response. As a result, percentages do not total 100%. This chart does not include miscellaneous responses (5%).

General Preferences for Analog and Digital Interpretive Elements

Finding #6: Visitors generally preferred traditional, analog methods of getting content, particularly object labels, which were valued for their ability to provide just-in-time information when and where the visitor wants it. However, digital users were interested in a range of digital experience types in the galleries and felt strongly that these experiences should be offered in the galleries in close proximity to the artwork, as opposed to only online or in an app format (some thought it would be valuable, though, to duplicate the experiences in these formats).

Preferred Content Formats

Participants in the Gallery Debrief Interviews were asked about their general preference for ways of getting content in art museums. Consistent with their choice of interpretive elements during their visit, most visitors chose traditional ways of disseminating content (object labels, wall panels, handbooks, guided tours, and audio tours). Digital options for receiving content were only selected by a small number of visitors.



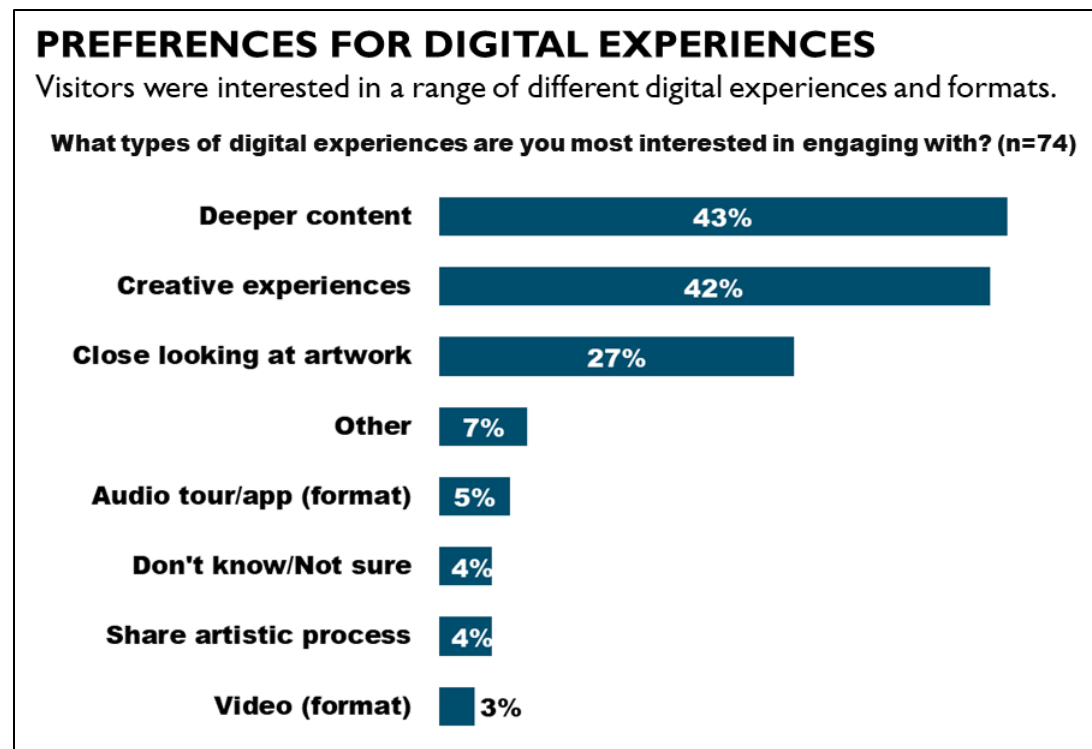
When asked to comment on their top choice, most visitors chose to speak about object labels. These were preferred for providing just-in-time information (when and where the visitors want it) in close proximity to the art. Visitor comments about the value of object labels for this reason included:

- “In the moment. Exactly what you’re looking at.... I want to see, when I’m look[ing] at it, a little bit of history about the piece.”
- “It’s so immediate...you can look at something and kind of just learn about it.”
- “You’re reading about what you’re seeing right at that moment.”
- “It normally can overwhelm me just to think about so many different pieces, but I like to usually hone in on one specific piece and just kind learn a little bit about that.”
- “It enhances that interaction with the actual work, which, to me, is primary.”

The relatively large number of visitors (31%) who selected audio tours as a preferred method of engaging with content is inconsistent with the low number of users who used the Detour app. As outlined above, many visitors indicated that they were unaware of the app and would have been interesting in engaging with it if they were aware of it, suggesting a need for greater marketing.

Preferences for Digital Experiences

Focused interview participants (all digital users) were asked about their general preferences for digital experiences. While interviewees tended to articulate interest in the type of experience that they were engaging with (Gallery+ users articulated preference for content-rich experiences; Color Composer users articulated interest in creative experiences), there was generally interest in all three types of experiences. Although it was not included as a suggested example of a type of experience, some participants also articulated an interest in experiences that focus on sharing the artistic process. Some also articulated preferences for formats (e.g. video, audio tours) rather than content.



Placement of Digital Interpretive Components

In the Details and Gallery+ users were also asked about their preferred location for the digital experience with which they engaged. Regardless of digital experience, most interviewees preferred that the experience be available in the gallery in close proximity to the artwork.

- “I do like it where it is now in the gallery. That way, if you find that painting, you can actually go up close to it, learn more about it.”
- “I think it’s good where it’s at, since it’s in the gallery, as you’re looking at the paintings, you can always find extra information if you’re looking for it.”
- “I like it here in the gallery. Because the art is right there.”

They also felt that they would be more likely to use the digital component in the gallery versus having to explicitly seek it out online.

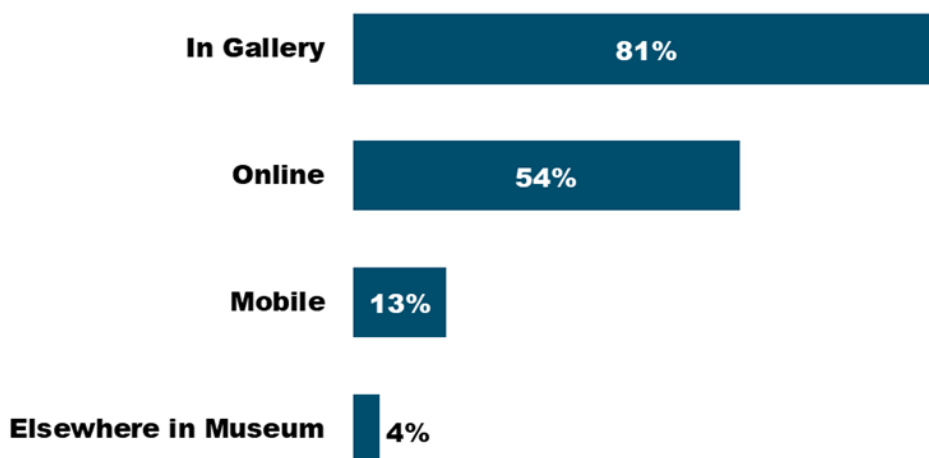
Some interviewees felt that offering a duplicate version of the interactive online or as an app would be beneficial but did not want it to replace the in-gallery experience.

- “I think it’d be great if it was also online, so that way, you can go to the museum’s website and kind of do some of this exploration in preparation of your visit too, or afterwards.”
- “It could possibly be put in a website just so people that can’t come to a museum like this can see it online.”
- “I think the highest would be in the gallery you’re in. But I was wondering if it was available online too. I teach, but it’s a couple hours away, so it would be fun to see that too and show it my kids.”

PREFERRED LOCATION FOR DIGITAL EXPERIENCES

Visitors wanted the digital experiences to be in the galleries in close proximity to the artworks.

What do you think is the best location for these types of digit experiences? (n=54)



Evidence of Learning

Finding #7: The study showed evidence of content knowledge gain (as seen in both the rubric-scored PMMs and visitors' self-reported expansion of knowledge), with the art itself and the interpretive text perceived as contributing the most to knowledge gain. However, visitors who reported lower baseline knowledge entering the galleries also reported lower growth in knowledge, suggesting that these visitors may benefit from some different or additional interpretative approaches. Additionally, about half of visitors entered the galleries with some kind of misconception about European art from 1750 to 1945. Encouragingly, some visitors recognized and acknowledged their misconceptions after visiting the galleries, and almost no visitors articulated new misconceptions after leaving the galleries. Visitors showed moderate awareness of the key concepts identified by the museum. More thorough wall panel usage seemed to be related to awareness of the key concepts, however, there is also some evidence from the PMMs to suggest that thorough wall panel users tend to have higher levels of prior knowledge of these concepts before visiting.

The Bloch Galleries summative evaluation study measured the impact of interpretive resources on the learning and experience of the Bloch Galleries visitors through three main measures: 1) identification of the three key concepts outlined by the museum in both Gallery Debrief Interviews and PMMs; 2) self-reported expansion of knowledge as part of the Gallery Debrief Interviews; and 3) change in breadth, depth, and holistic mastery of content as measured on the PMMs.

Awareness of Key Concepts

Of particular interest to the museum was whether visiting the galleries would increase visitors' awareness of three key concepts:

- Art is shaped by the historical, social, economic, technological, and political contexts of the time;
- Art of this period included a diversity of artistic styles; and
- Art of this period evolved and progressed over time.

Awareness of these concepts was measured in two ways. As part of both the Gallery Debrief Interviews and PMM exercise, visitors were asked to identify what they felt was the main message of the Bloch Galleries. Additionally, comments related to these messages were coded on the PMMs, which illustrates how many visitors were aware of these concepts prior to entering the galleries as well as after and also helps to identify whether visitors came away with these concepts even if they did not identify them as central to the galleries' message.

Identification of Key Concepts as Gallery Main Message

When asked to determine the main message of the galleries, just over 40% of visitors identified one or more of the three key concepts pinpointed by the museum. The other main message identified by a substantial number of visitors (19%) was providing a general survey of art of the time. There were a variety of other main messages identified by smaller numbers of visitors as well. About 9% of visitors were unable to articulate any main message in the galleries.

IDENTIFICATION OF KEY CONCEPTS (n=176)

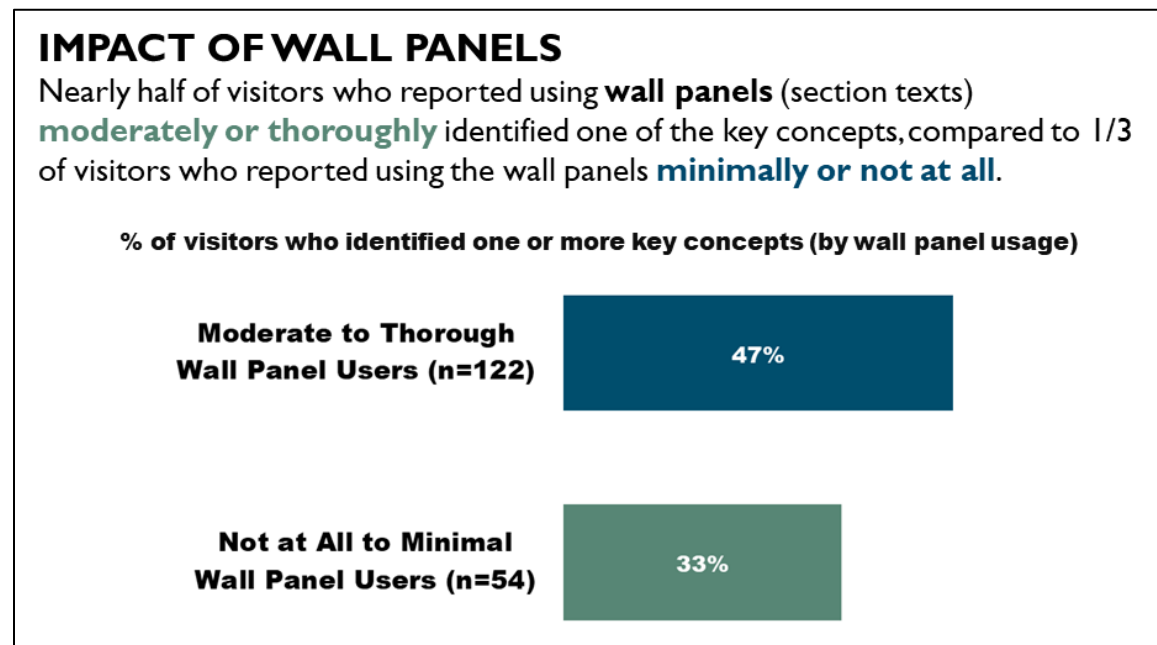
43% of visitors identified one of more of the key concepts as a main message of the Bloch Galleries, with the evolution/progression of art over time most frequently mentioned.



Some visitors mentioned more than response. As a result, percentages do not total 100%.

Other main messages identified by visitors included providing a general survey of the art of the time, promoting the Nelson-Atkins as an institution, providing a picture of life at the time the art was made, featuring specific artists or artistic movements, promoting general arts understanding and appreciation, interpreting the artists' meaning behind their work, or allowing visitors to draw their own interpretation. About 9% of visitors were unable to articulate a main message.

The museum also sought to understand whether interaction with any interpretive components contributed to greater awareness of the key concepts. Looking at the relationship between interpretive component usage and the identification of key concepts, it appears that visitors who reported using the wall panels moderately or thoroughly were more likely than visitors who used them minimally or not at all to identify one of the key messages. For other content-rich interpretive components (object labels, Gallery+), the sample of thorough users was either too small to look at differences or there was no difference seen based on usage.



Difference in concept identification by thoroughness of wall panel usage is approaching significance (Fisher's Exact Test, $p < .10$).

Identification of Key Concepts on PMMs

In addition to directly asking visitors to identify the main messages in the galleries, PMMs were also coded for these key messages. About one-third of visitors mentioned one or more of the key concepts on the pre-visit maps, suggesting that they already had some awareness of these concepts. On the post-maps, 44% of visitors mentioned one or more of the key concepts. A total of 58% of PMM participants mentioned one of these themes, either on their pre-map/post-map or both, showing some growth in awareness of these concepts from before visiting the galleries to after.

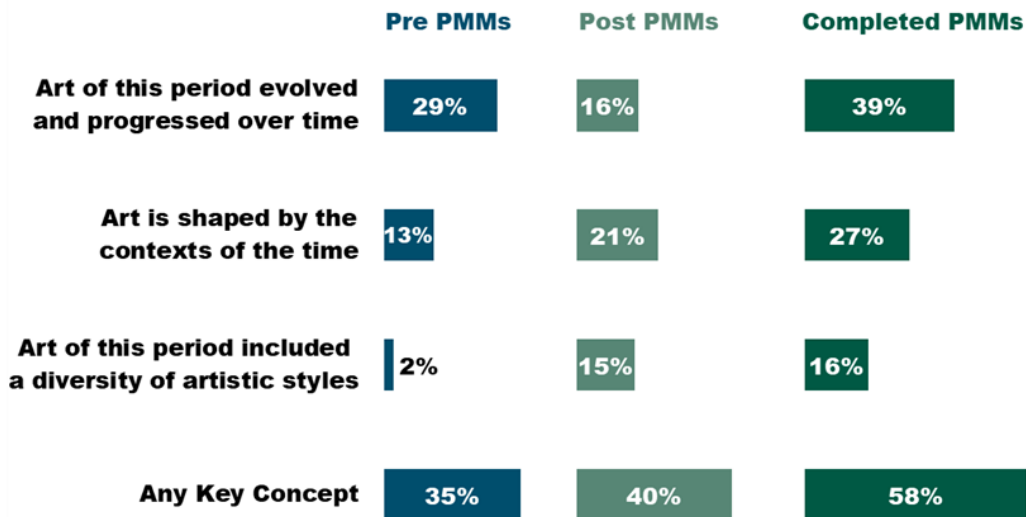
Two concepts – a.) the diversity of artistic styles and b.) art is shaped by the contexts of the time – were mentioned more frequently on the post-maps than the pre-maps, suggesting that the experience in the galleries brought these concepts to the forefront of visitors' minds.

Interestingly the third concept (evolution over time) was actually mentioned more frequently on the pre-maps than the post-maps, suggesting visitors entered with more awareness of this idea and were less likely to add comments about this idea after leaving the galleries.

IDENTIFICATION OF KEY CONCEPTS ON PMMS (n=85)

Nearly 60% of visitors mentioned one or more of the key concepts on their completed Personal Meaning Map, although a little over half of them mentioned it before going into the galleries.

% of visitors who identified one or more key concepts on PMM

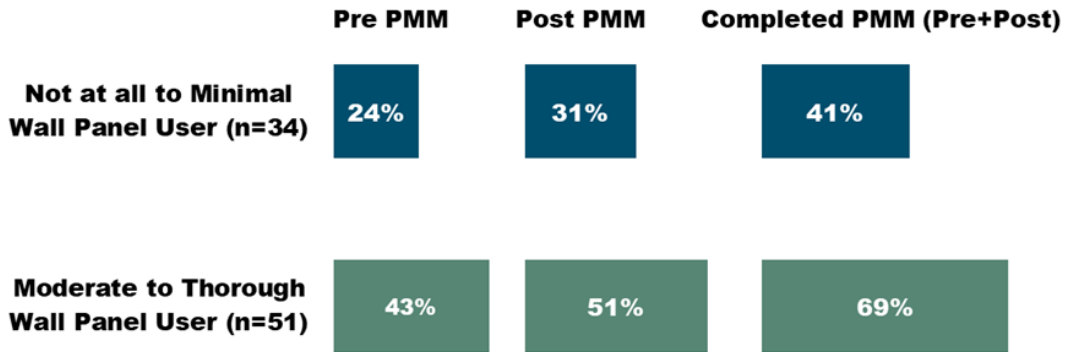


Again, wall panel usage appeared to be related to increased awareness of these concepts, with more thorough wall panel users mentioning these ideas more frequently on their post-PMMS than less-thorough users. However, more-thorough wall panel users were also more likely to mention these concepts on their pre-maps, suggesting that people who use the wall panels thoroughly may already be entering with greater content knowledge.

IMPACT OF WALL PANEL USE

Visitors who reported using the **wall panels moderately or thoroughly** were more likely to mention one of the key concepts on both their pre and post PMMs than visitors who reported using the wall panels only **minimally or not at all**.

% of visitors who identified one or more key concepts on PMM (by wall panel usage)



The samples of low object panel users and high Gallery+ users were too small to examine the relationship of thoroughness of object label or Gallery+ use with concept awareness.

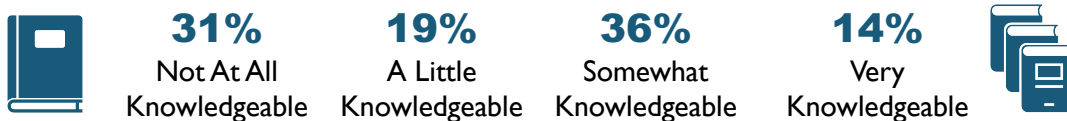
Self-Reported Knowledge Growth

Participants in the Gallery Debrief interviews were asked to reflect on their baseline knowledge of European Art from 1750 to 1945 prior to visiting the Bloch Galleries. Visitors self-reported a range of knowledge levels prior to entering the galleries.

BASELINE KNOWLEDGE OF EUROPEAN ART

Visitors self-reported a range of prior knowledge about European art from 1750 to 1945.

How familiar were you with European art from 1750 to 1945 prior to visiting? (n=90)



Visitors were also asked to reflect on how much their knowledge had expanded as a result of their visit. Overall, most visitors reported that their knowledge expanded somewhat (42%) or greatly (25%). Interestingly, although the sample was quite small, visitors who described themselves as very knowledgeable actually reported the most knowledge growth. Several of these visitors suggested that seeing artworks or artists that they had never seen before expanded their knowledge.

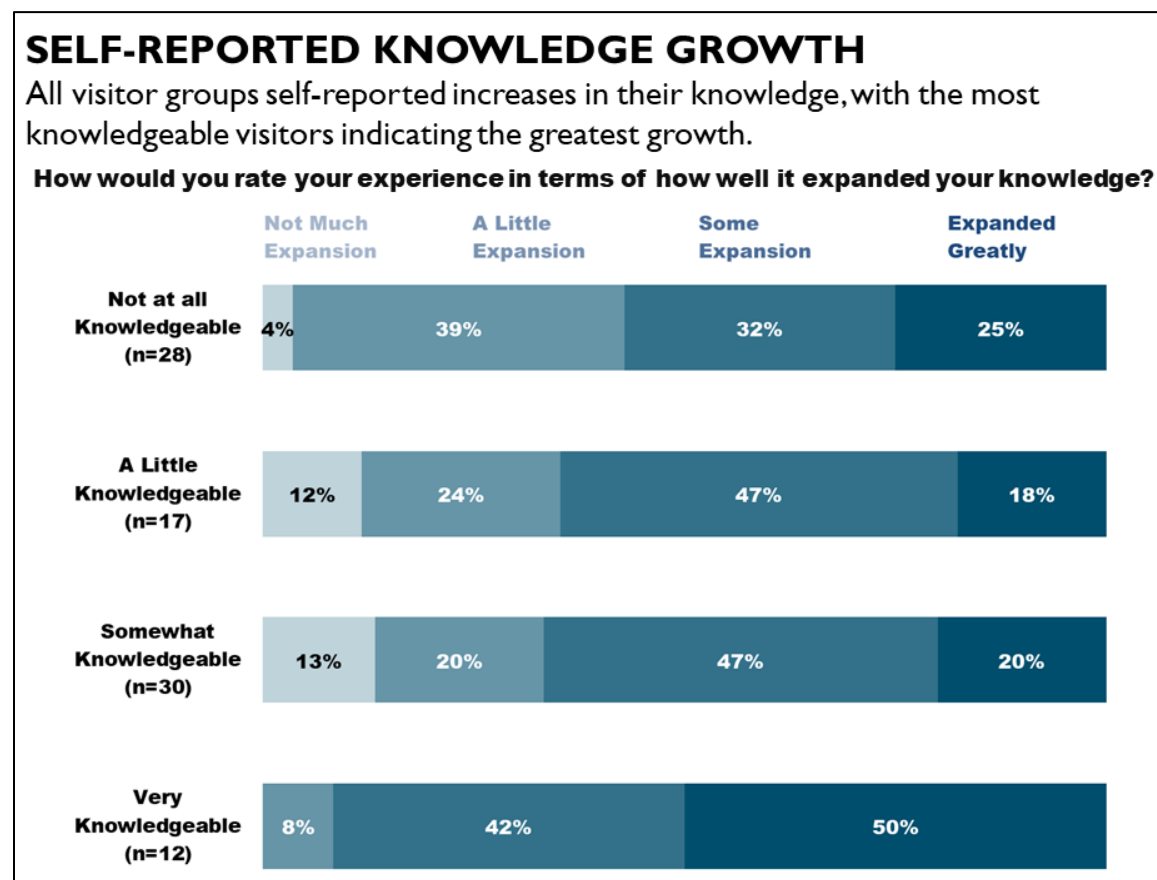
- “I would say ‘very’ from the standpoint that I saw things that I had never seen before.”
- “I did see a few painters that I had not known before.”

Several also highlighted specific facts that they had learned from the interpretive text.

In contrast, visitors who said they had the least baseline knowledge also reported the least knowledge growth. Some who said their knowledge had not been much expanded indicated that they did not engage extensively with the interpretive text.

- “I don’t think we looked that close. We didn’t read a lot of the placards.”
- “A little bit. I mean, we weren’t in there very long. I’m trying to see as much of the museum as possible. I’m not reading everything, just looking.”

There are a variety of different possible reasons for this somewhat counterintuitive finding (highly knowledgeable visitors reporting higher growth, less knowledgeable visitors reporting lower growth). It may be that less knowledgeable visitors are not coming to the museum with a learning goal. They may have other motivations for visiting the museum and learning may be a lower priority for them. This hypothesis may be supported by those visitors who said they did not engage extensively with the interpretive text. Additionally, visitors may have difficulty judging their own knowledge levels and may over or underestimate their knowledge levels. However, it may still be worth conducting further research with this audience to determine if they feel that they would benefit from different interpretive approaches.

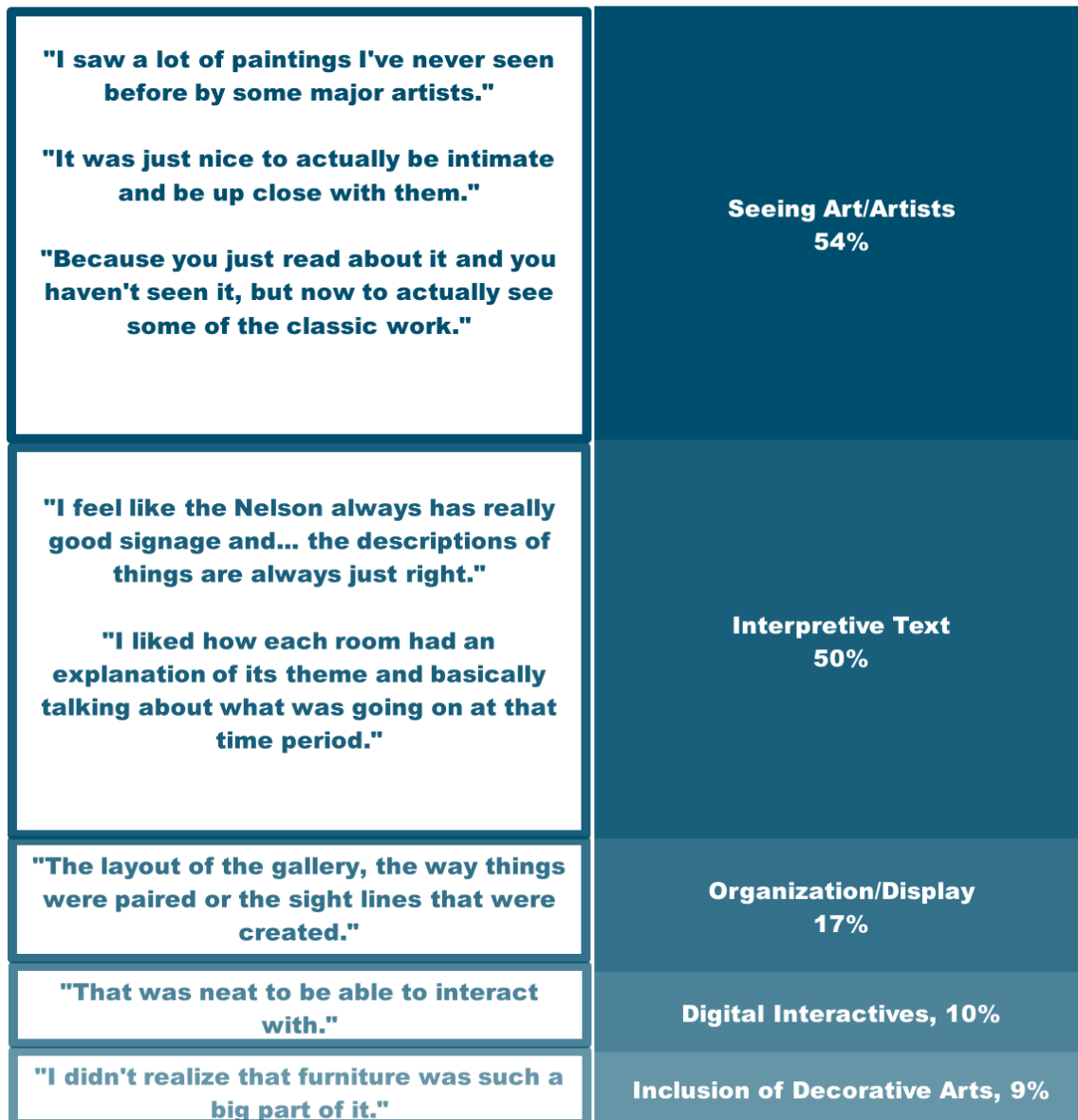


Expected cell counts were too small to run Chi-square.

Visitors who reported that their knowledge increased were asked which aspects of their experience most contributed to this knowledge expansion. Direct engagement with the art and interpretive text were most often mentioned as contributing to knowledge gain, followed by the organization or display of the art and digital interpretive components. About one out of 10 visitors specifically called out the integration of the decorative arts. About 11% of visitors were not able to identify anything that specifically contributed to their knowledge gain.

IMPACT OF GALLERY COMPONENTS ON LEARNING (n=90)

Interaction with the art itself and the interpretive text were most commonly mentioned as sources of new knowledge.



Some visitors mentioned more than response. As a result, percentages do not total 100%.

This chart does not include miscellaneous responses (6%) and those not able to identify any specific element (11%).

Knowledge Growth Seen on PMMs

In addition to self-reports of knowledge expansion, PMMs were used as a way to measure content knowledge change as a result of visiting the galleries. The goal of the PPM exercise was to understand what visitors already know about European Art from 1750 to 1945 and measure how visiting the galleries influences their thinking related to it. Each visitor’s map was assessed along three semi-independent parameters: 1) breadth of understanding; 2) depth of understanding; and 3) holistic mastery.

Breadth

The Breadth score represents the change (from pre- to post-map) in the number of conceptual categories the visitor used in describing their thoughts based on the prompt, “European Art 1750 to 1945”. A set of 21 categories (plus a miscellaneous category) was established based on the responses of visitors. The table below shows the categories, along with examples from the PMMs, and the frequency with which these categories were mentioned on the pre-maps and post-maps. This provides a picture of what was top-of-mind for visitors about European Art from 1750 to 1945 going into the galleries and then later at the conclusion of their visit.

#	Conceptual Category	Examples from PMMs	Pre-PMM	Post-PMM
1	Misconceptions		46%	1%
	1a. Artist not from time period/geographic area	Caravaggio, Michelangelo, Rembrandt	12%	1%
	1b. Artistic movement not from time period	Renaissance, Classicism	16%	0%
	1c. Artwork not from time period	Girl with a Pearl Earring	5%	0%
	1d. Themes not strongly associated with time period	“Dramatic, religious, bloody paintings”	29%	0%
	1e. Country/nationality not strongly associated with time period	Italy, Greece	9%	0%
	1f. Other misconceptions		13%	0%
2	Negative Expectation	“Low energy” “Dull, not very colorful”	4%	0%
3	Artists (any)		39%	39%
	3a. Name artists from time period	Cezanne, Degas, Gauguin, van Gogh, Kandinsky, Manet, Matisse, Mondrian, Monet, Pissarro, Renoir, Seurat, etc.	39%	39%
	3b. Facts about specific artists	“Monet worked in Argenteuil”	6%	12%

4	Countries/Nationalities typically associated with time period	France, England, Germany	13%	9%
5	Artistic Movements		45%	31%
	5a. Romanticism		2%	1%
	5b. Realism		7%	4%
	5c. Impressionism		36%	12%
	5d. Post-Impressionism (including Pointillism)		9%	6%
	5e. Expressionism		6%	0%
	5f. Surrealism		4%	5%
	5g. Cubism		8%	2%
	5h. Bauhaus		0%	1%
	5i. Modernism		7%	8%
	5j. Other		6%	0%
6	Themes/Subjects		54%	47%
	6a. Portraiture		18%	13%
	6b. Landscapes/Outdoor Scenes		22%	15%
	6c. Still life		5%	5%
	6d. Everyday life		5%	9%
	6e. Working class		1%	4%
	6f. Aristocracy/Upper class		4%	1%
	6g. Light/movement		6%	5%
	6h. Death/war		5%	1%
	6i. Abstraction/Non-Representative works		12%	8%
	6j. Emotion		6%	6%
	6k. Other		16%	16%
7	Specific artworks	Water Lilies, Eruption of Vesuvius	8%	18%
8	Art forms		19%	21%
	8a. Painting		16%	5%
	8b. Sculpture		12%	6%
	8c. Decorative arts		1%	14%
	8d. Pastels		1%	7%
	8e. Other		1%	1%
9	Materials & Techniques	<p>“Brushstrokes were more precise, more like a picture.”</p> <p>“The colors were almost scientific—how the texture was created with the color”</p>	13%	25%

10	General characteristics of artworks/styles/movements	“What you see is what you get. Frozen moment in time but everything is moving.”	52%	40%
11	Art shaped by historical, social, technological contexts	“The artist is reflecting his times, technology, and audience.” “Simple but in-depth explanation of how art fits into the times and how people react to the day to day.”	13%	21%
12	Change and evolution of ideas (any)		29%	16%
	12a. Change over time (general)	“Impressionism to cubism, evolving from nebulous style to geometric angled style.” “Classic to impressionist to modern progression and differences of artistic styles.”	21%	14%
	12b. Art broke with tradition	“Departure from religious art”	11%	4%
	12c. Artists not accepted in their own time	“How unpopular the impressionists are at the time and Baudelaire tried to explain impressionists to the masses. 1st modern art critic.”	4%	1%
13	Interconnection/Interrelationship of artists	“Interesting to know that they worked together and were close colleagues.”	1%	5%
14	Diversity of art styles	“Such a wide variety of styles.” “Lot of works that were varying from war times sadness to enjoying beautiful days outside to the portraits.”	2%	15%
15	Lack of diversity of artists/subjects	“Not a lot of multicultural subject matter. People depicted are white people. Logical for the geographic area.”	2%	4%
16	Patronage/financing	“Wealthy would be able to afford art, sign artist”	12%	1%
17	Personal/emotional response to art (positive)	“Everything draws you in. Artists can see so much that we don’t. Beautiful, overwhelming.”	28%	41%

		“My mother had a painting/print of Renoir growing up, so I know him as an artist and know there is some Renoir here.”		
18	Personal/emotional response to art (negative)	“[Surrealists] Don’t like it. Makes me uncomfortable, like looking into someone else’s diary.”	6%	5%
19	Surprising/different than expected	“Expecting to find Caravaggio and that period of painting—bloody, grotesque—expected in this time period, maybe it’s earlier.”	0%	22%
20	Other museums	Musée D’Orsay, Louvre	11%	1%
21	Historical events from time period (not related to art)	“Coinciding with classical music.”	13%	0%
M	Miscellaneous		18%	8%

There was no significant difference in the number of categories mentioned from the pre- to the post-maps. On average, visitors mentioned 3.6 conceptual categories in both their pre-maps and post maps. Although there was no change in the number of categories mentioned, it is interesting to note the differences in mentioned categories on the pre- versus the post-maps.

Several categories were mentioned quite frequently on both the pre- and post-maps (e.g., things such as specific artists or artistic movements, themes or subjects addressed through art, and general characteristics of the art of this time period). However, there were some interesting differences between the pre-maps and post-maps that showed some shifts in what was top-of-mind for visitors before and after their visit to the galleries. In addition to the changes in the mentions of the key concepts (outlined above), one of the major shifts seen from pre- to post-map was that many visitors (almost half) entered the galleries with misconceptions about what was included in European Art from 1750 to 1945. Many visitors mentioned artists, movements, or specific artworks that were not from the time period or geographic region. Even more commonly, visitors mentioned themes that are not strongly associated with this time period, particularly mentioning religious artwork quite frequently.

- “Dramatic, religious, bloody paintings.”
- “Religious – Icons, Mary, Jesus, Christian.”
- “Religion – Christ was a big theme through certain ages.”

In contrast to the misperceptions going in, about one-fifth of all PMM participants acknowledged some misconceptions on their post-PMM, indicating that what they saw in the galleries was surprising or different than they expected.

- “Not as many of this style of painting as I expected. Expecting to find Caravaggio and that period of painting – bloody, grotesque. Expected in this time period, maybe it’s earlier.”
- “Landscapes. Didn’t realize how many in time period. [I was] thinking about portraits.”

- “Everyday scenes. Not just historical/biblical/portraiture. Everyday people in everyday settings and activities. Less glorifying, more documenting. Style less realistic, but capturing more real life.”
- “More contemporary than I would have expected.”

A variety of other shifts were seen as well. Although about 28% of visitors expressed some positive emotional response to the art before going in, 41% mentioned this upon leaving the galleries.

- “Underestimated impact of being able to observe original art at such a close range. You can read about it, take an art history class, but to see it in person is different. The sensory impact of being that close to the great masters’ work.”
- “The joy of being in the Nelson and seeing some old friends (the Gauguin and one of the Pissarro’s) and meeting some new ones in the Bloch donation.”
- “Really enjoyed the unfinished pieces and the pastel gallery is a new favorite.”

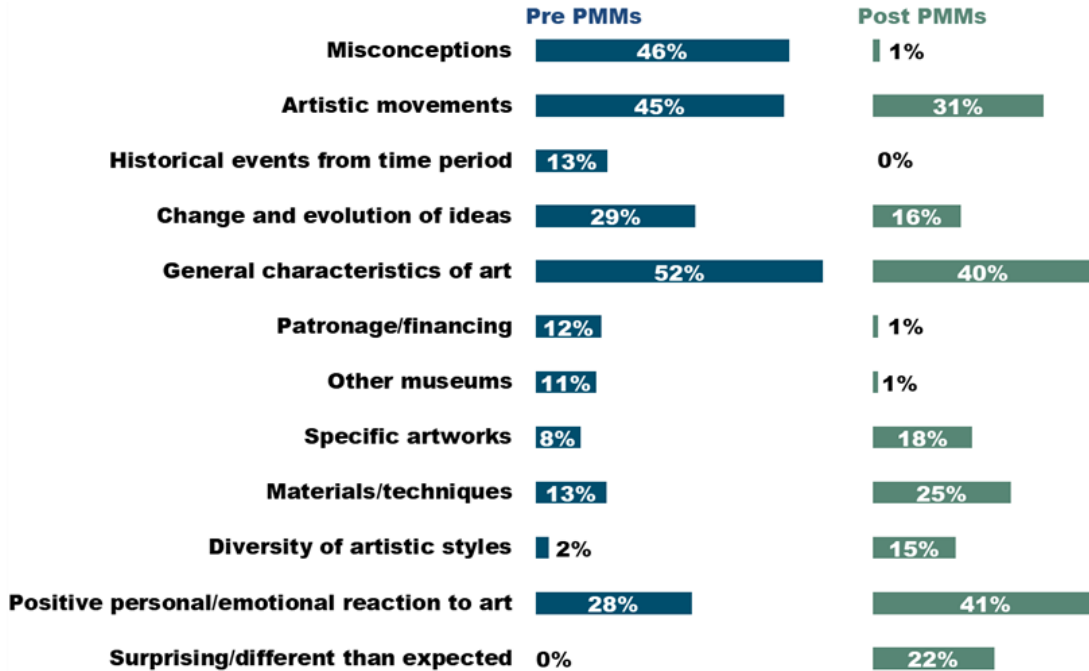
There were also a few additional shifts in top-of-mind awareness from pre- to post-map. On the post-maps, visitors were less likely to comment on historical events from the time period (not directly related to art), patronage/financing of the arts, other museums, general characteristics of the art, and were even less likely to mention specific artistic movements (particularly Impressionism, which was mentioned by 36% of visitors on the pre-maps and only 12% on the post maps). In contrast, visitors were more likely to comment on specific artworks and their materials and techniques. Although there was no shift in the overall number of mentions of specific art forms, decorative arts as a subcategory was mentioned much more frequently on the post-maps (14%) than the pre-maps (1%)

The chart below shows the larger shifts (greater than 10% increase or decrease in frequency of mentions) from pre- to post-map in the main PMM categories (excluding subcategories).

NOTABLE SHIFTS IN PMM MAIN CATEGORIES (n=85)

Almost half of visitors entered the galleries with misconceptions about European Art from 1750 to 1945, mentioning artists, artworks, artistic movements, or themes not associated with this period.

% of visitors who identified the following concepts (pre/post comparison)



Depth

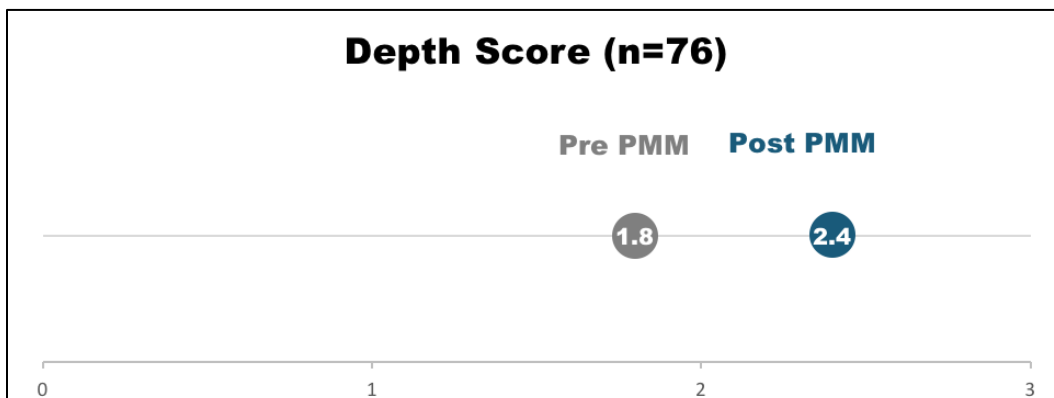
The depth score measures how detailed and complex visitor understanding is within a conceptual category. Because this scale measures the depth of people's understanding, we only scored those concepts that people provided further information about through the follow-up interview. Both the words written by the visitor and the follow-up responses were used to score depth. Visitors received a depth score for each category that they expanded on in their pre- to post-map interviews. Then, these scores were averaged to come up with an overall depth score for each visitor. If someone made no change to their map and did not elaborate at all in their post response, they did not receive a depth score for their post-response, resulting in a total of 76 matched maps scored for depth.

Depth scores were calculated using the following scale:

- 0 Unrelated response - essentially an unscorable response that doesn't relate to the exhibit OR includes only misconceptions about the content:
 - [Sculpture, paintings] Don't have a lot of knowledge, just what came to mind.
 - [Dirty] "Back when hygiene wasn't a big thing, so people were dirty."
 - [Renaissance] "Have learned about the different styles of art in school. Was European, Michelangelo, da Vinci."
- 1 Minimal response, typically superficial in nature; demonstrates shallow or no understanding of the concept; essentially repeats what they have written:
 - [Art History]: "My art history class"
 - [Old]: "1750 was a long time ago"
 - [Impressionist] "Style, I think from this time period?"
- 2 More expanded response reflecting some general or limited knowledge of the concept; makes connections between conceptual areas but does not go into much detail; draws on personal experience to relate to the concept:
 - [World War] "Big things going on around '40s and WWI and I'm sure painters were influenced by what was going on at this time."
 - [Expressive] "As time goes, it gets more abstract."
 - [Matisse]: One of the main French artists. One of the 1st to pop into my head. Studied French. Remember it from studies.
- 3 Shows a great understanding of the concepts, an expanded and elaborated answer. Detailed response reflecting a good understanding of the concept; makes connections between conceptual areas and goes into detail; uses personal experiences or incoming knowledge to articulate/illustrate and/or compare/contrast:
 - [Reflective of the times] "Impact of the war and how it pushed people to more simplistic things. Reasons why people were drawn to things that were simple and peaceful. It was because of violence and Industrial Revolution."

- [Post-WWI art] “People were surprised by how bad WWI was. Thought it would be quick. When [illegible] was started, lots of art about deaths from the war and the worst parts of humanity.”
- [Break from the gallery/convention]: “Risky for painters taking the risk to not have patrons/benefactors fund work and have commissions from galleries.”
- [Experimental] - “Broke free from convention. Went from Impressionist to Surrealist, opened up.”

Average depth scores increased significantly from the pre- to the post-maps. On the pre-maps, the average depth score was 1.8. On the post-maps, visitors’ average depth score increased to 2.4, indicating that visitors had a deeper understanding of the concepts that they elaborated on.



Significant difference from pre- to post-map in depth scores (Paired samples t-test, $p < .05$).

Holistic Mastery

Holistic mastery measures the visitors’ overall understanding of the topic “European Art: 1750 to 1945.” Unlike the other scores, this score combines all the information from the map (categories mentioned, depth of understanding) into a single rating that indicates whether a visitor’s comprehension is more like that of a novice or more like that of an expert. Pre-scores were calculated based on the information in the pre-map only, post-scores included information on both the pre- and post-maps. If an individual made no change to their map or did not elaborate at all in their post response, they received the same mastery score for the post-map as their pre-map.

Visitors’ holistic mastery scores were scored based on how well visitors expressed the key concepts. Holistic mastery was scored according to the scale below.

- 0 Inaccurate understanding: no references to discrete facts or major concepts listed below or uncertainty about facts or concepts.
- 1 Some accurate understanding: minimal or moderate knowledge of discrete facts; no reference to major concepts listed below.

- 2 Accurate understanding: detailed and thorough knowledge of discrete facts; may refer to one or two major concepts, but does not show depth of understanding; or describes one concept in a little greater depth.
- 3 Conceptual understanding of; refer to all three of the major concepts listed below; or describes two or more of the major concepts in greater depth.

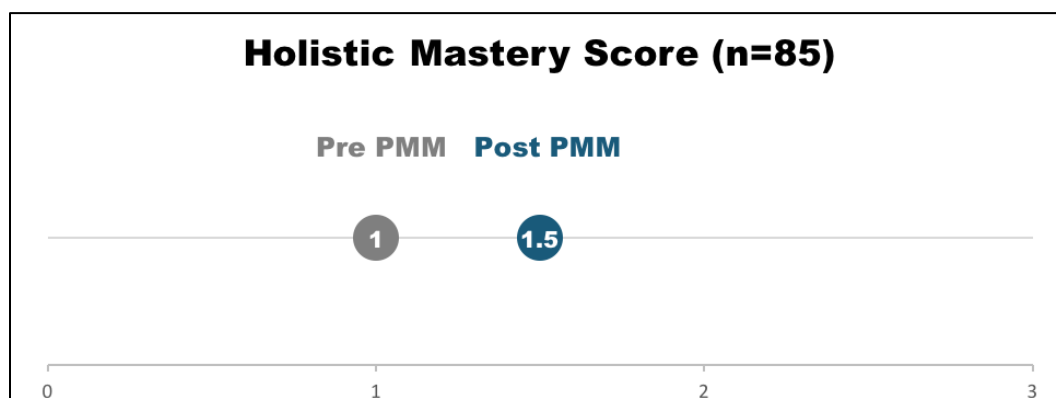
Discrete Facts (in absence of larger context or impact):

- Names of artists
- Artistic movements
- Art forms, materials, and techniques
- Subjects and themes
- Historical events
- Technological changes

Major Concepts:

- Art is shaped by the historical, social, economic, technological, and political contexts of the time;
- Art of this period included a diversity of artistic styles; and
- Art of this period evolved and progressed over time.

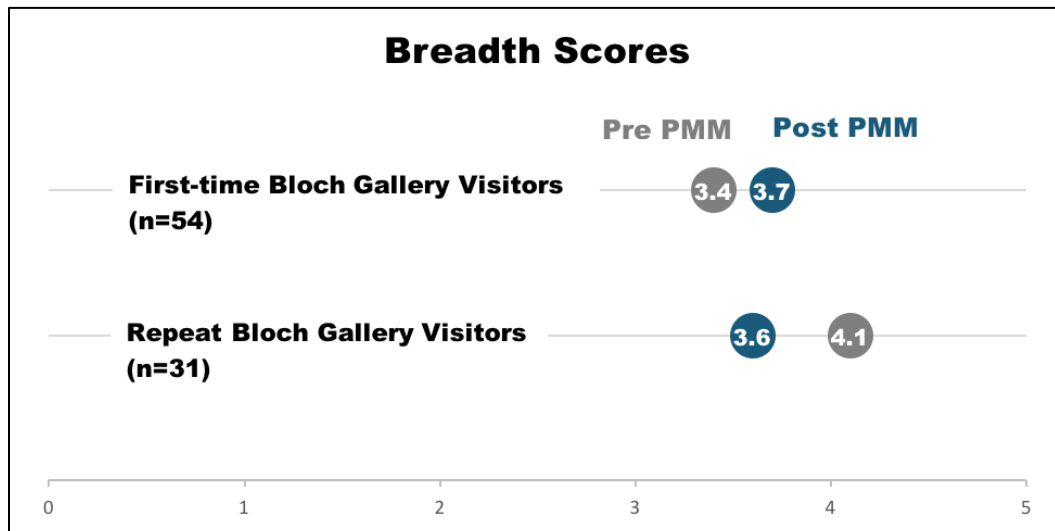
Holistic mastery scores also increased significantly from the pre-maps to the post-maps. On the pre-maps, the average holistic mastery score was 1.0, indicating that visitors mostly had limited and general knowledge of European Art from 1750 to 1945. On the post-maps, visitors' average holistic mastery score increased to 1.5, indicating that visitors identified more of the key exhibition concepts and were able to speak in some depth about at least one of the concepts.



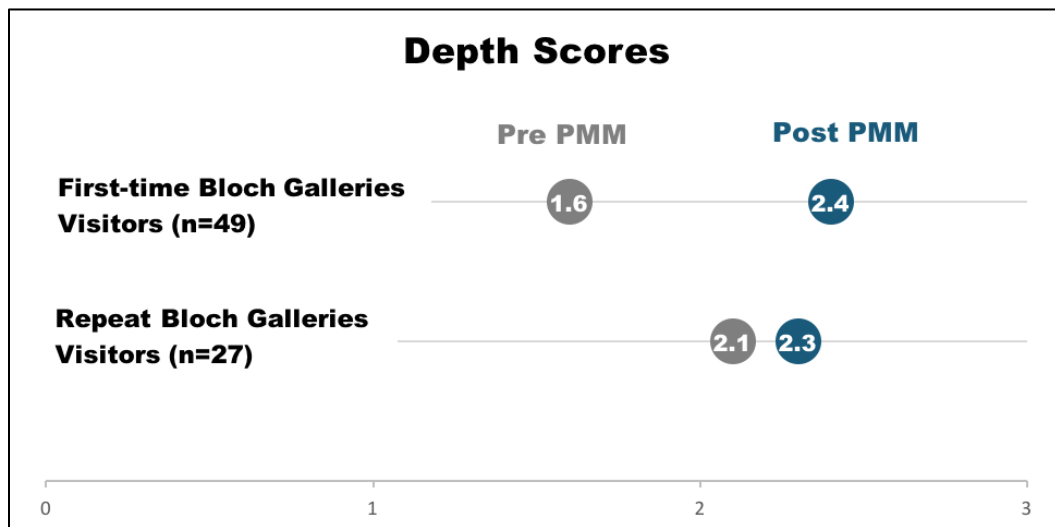
Significant difference from pre- to post-map in holistic mastery scores (Paired samples t-test, $p < .05$).

Differences in PMM Scores Between First-Time and Repeat Bloch Galleries Visitors

Because some of the PMM participants had visited the Bloch Galleries in the past (and some indicated that they came quite frequently), comparisons were made between prior and first-time Bloch Galleries visitors. As would be expected, participants who had previously visited the Bloch Galleries came in with higher breadth, depth, and holistic mastery scores and did not exhibit as much change from pre- to post-map. For repeat Bloch Galleries visitors, there was no significant change in breadth or depth scores, although they did exhibit increases in holistic mastery. Visitors who had not previously visited the Bloch Galleries showed significant change from pre- to post-map in depth and holistic mastery. Note that breadth scores for repeat visitors decreased from pre- to post-map (although this was not significant). It is normal in a PMM exercise to see lower breadth scores on the post-map as seeing an exhibition usually focuses visitors' responses on the content of the exhibition.

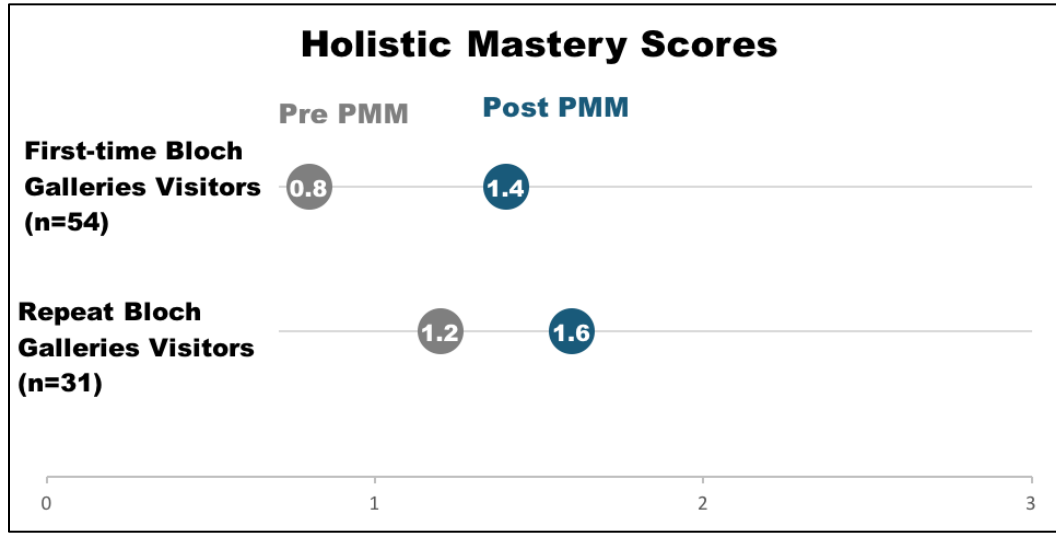


No significant difference from pre- to post-map in breadth scores for first-time or repeat Bloch Gallery visitors.



Significant difference from pre- to post-map in depth scores for first-time Bloch Gallery visitors (Paired samples t-test, $p < .05$).

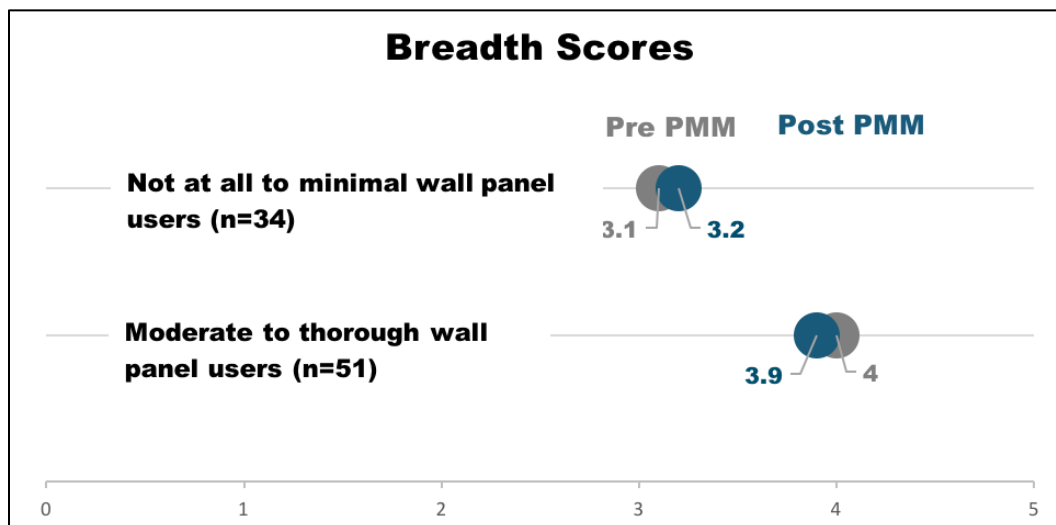
No significant difference from pre- to post-map in depth scores for repeat Bloch Gallery visitors.



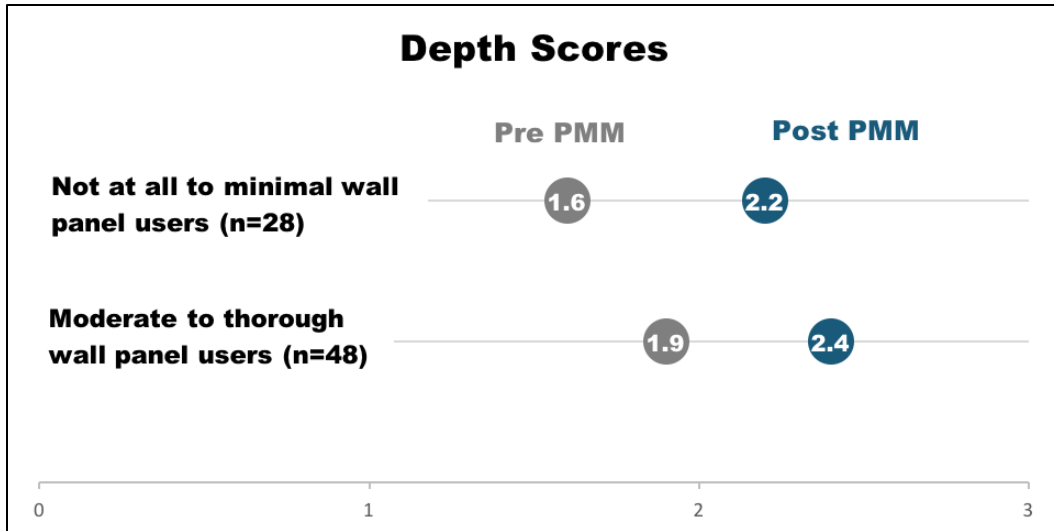
Significant difference from pre- to post-map in depth scores for first-time and repeat Bloch Gallery visitors (Paired samples t-test, $p < .05$).

Differences in PMM Scores by Wall Panel Usage

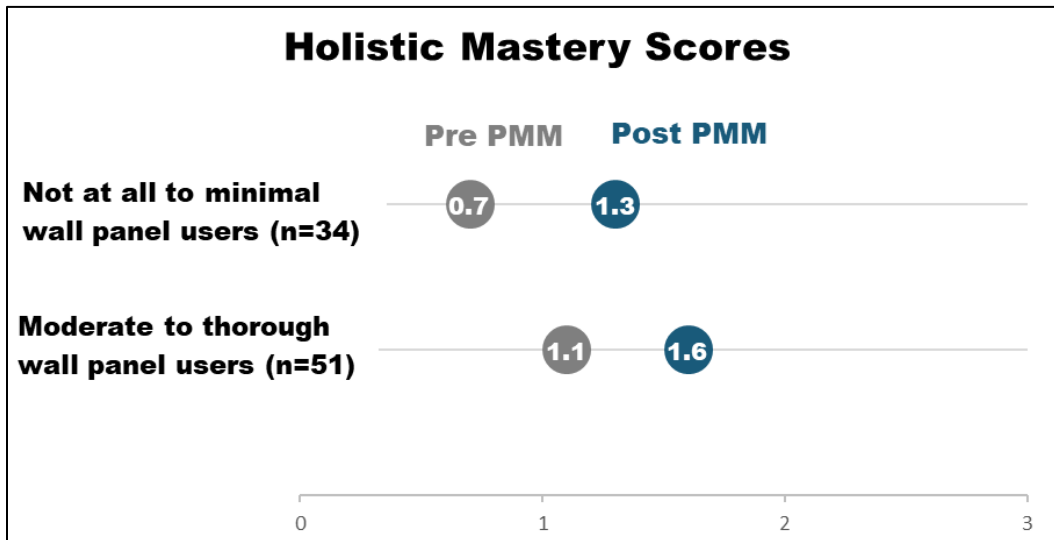
Consistent with the finding that more thorough wall panel users entered the gallery with more awareness of the key concepts, PMM scores for thorough wall panel users were higher on both the pre-PMMs and the post-PMMs. This suggests that people with more background knowledge tend to use the wall panels more thoroughly. Both low users of wall panels and high users of wall panels showed increases from pre- to post-map on their depth and holistic mastery scores. There was no change in breadth for either group. The samples of low object panel users and high Gallery+ users were too small to examine the relationship of thoroughness of object label or Gallery+ use with PMM scores.



No significant difference from pre- to post-map in breadth scores for low or high wall panel users.



Significant difference from pre- to post-map in depth scores for both low and high wall panel users (Paired samples t-test, $p < .05$).



Significant difference pre- to post-map in holistic mastery scores for both low and high wall panel users (Paired samples t-test, $p < .05$).

Evidence of Emotional Impact

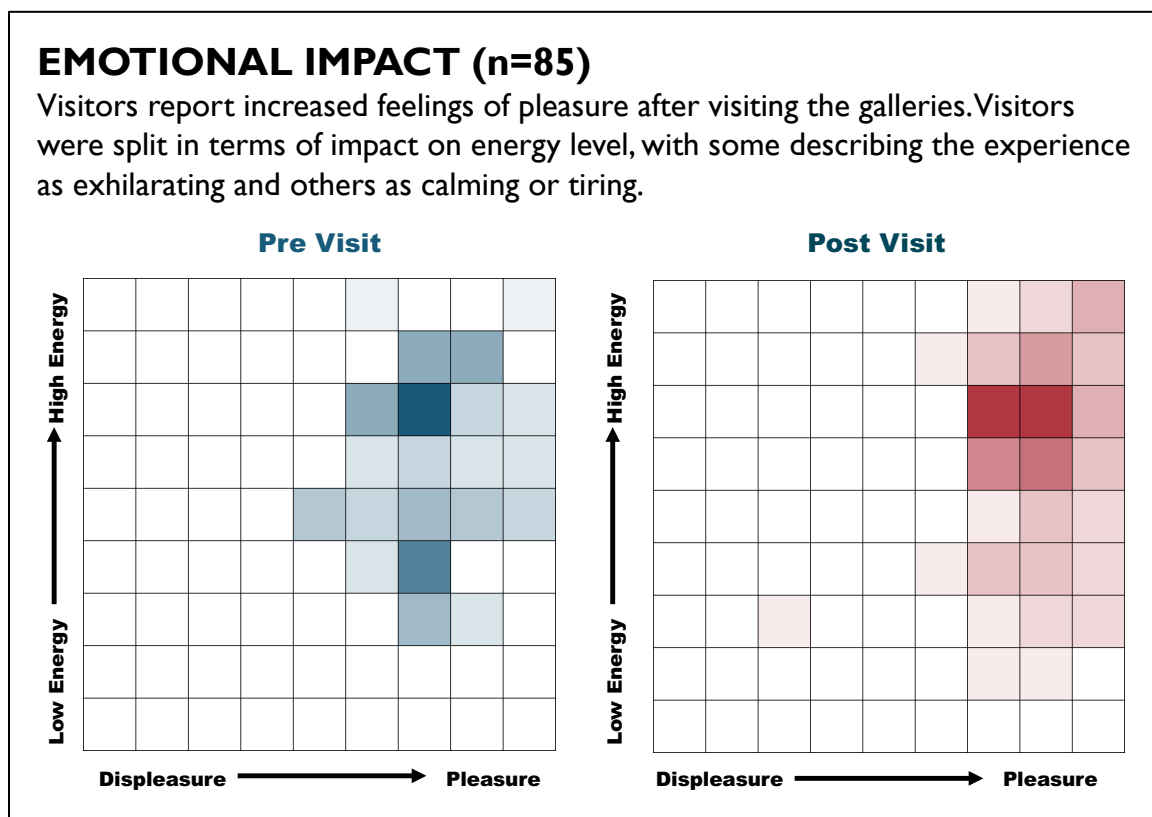
Finding #8: The evaluation study also provided evidence that visiting the Bloch Galleries has a positive effect on mood or emotional state. Visitors reported increased feelings of pleasure after visiting the galleries, primarily seen as resulting from engagement with the art.

Using the Russell Affect Grid, visitors were asked to assess their emotions along two dimensions: 1) pleasure to displeasure and 2) high energy to low energy. Visitors entered the galleries very high on the pleasure scale (mean of 7.13 on a 9-point scale). Their pleasure, however, did increase significantly after exiting the galleries (mean of 7.81) (paired samples t-test, $p < .05$). Most visitors indicated that their pleasure increased (57%), while 37% reported no

change, and 6% reported a decrease.

Visitors entered the galleries at a moderately high energy level (mean of 5.90 on a 9-point scale). Overall energy levels did increase slightly (mean of 6.25) after exiting the galleries. This difference was approaching significance (paired samples t-test, $p < .10$). Although the average did go up, visitors were somewhat split in their response with some describing the experience as exhilarating and stimulating (increasing energy) and others describing themselves as tired and depleted after the engagement (decreasing energy). While 47% said their energy level increased, 28% indicated no change, and 25% reported a decrease in energy.

The heat maps below show visitors' reported emotional states both before and after visiting the Bloch Galleries. The shift to higher levels of pleasure and the spreading of the energy levels can be seen in the heat maps.



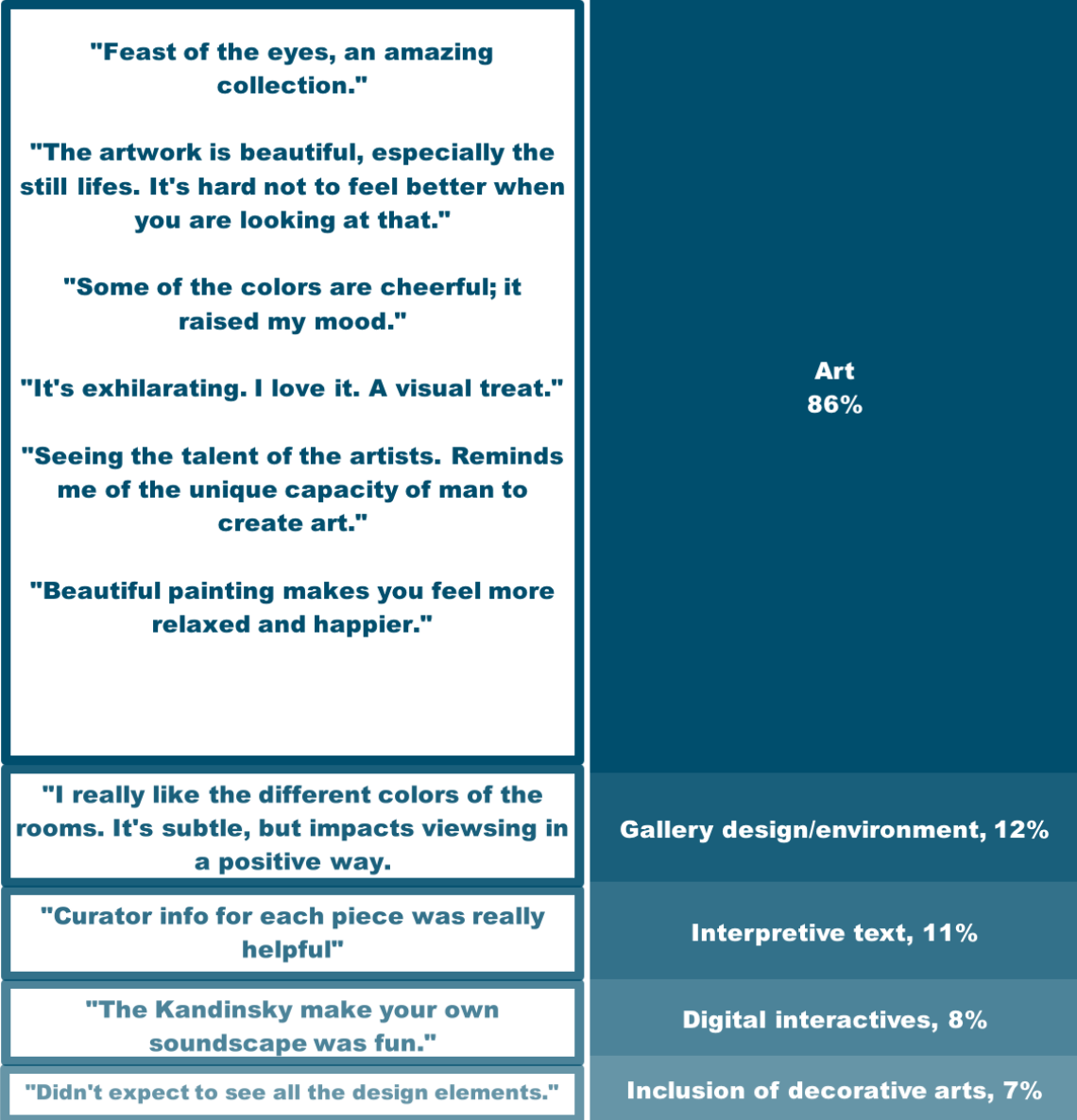
Visitors were asked whether there was anything that they engaged with in the galleries that impacted their emotional state. Visitor almost exclusively reported that their emotional state was impacted through engagement with the artworks (86%). A few others mentioned other aspects of the experience, including the gallery design (lighting, wall colors, benches, overall gallery environment, etc.) (12%), interpretive text (11%), and digital experiences (8%). Interestingly, 7% specifically noted the inclusion of decorative arts in the galleries.

Not enough visitors reported using Detour to draw any conclusions about the impact of that particular interpretive element on emotion. One visitor did comment that using Detour has a

negative impact on their emotions because they spent so much time trying to figure out how to use it. There did not appear to be any clear relationship between emotional impact and learning, as measured by the PMM scores.

IMPACT OF GALLERY COMPONENTS ON EMOTION (n=83)

A large majority of visitors reported that their emotional state was positively impacted through engagement with the artworks.



Some visitors mentioned more than response. As a result, percentages do not total 100%. This chart does not include miscellaneous responses (12%) and those not able to identify any specific element (5%).

REFERENCES

Falk, J. H., Moussouri, T., & Coulson, D. (1998). The effect of visitors' agendas on museum learning. *Curator, 41*(2), 107–120.

Pekarik, A. (2014). Overall Experience Rating – A Key Performance Indicator for Museums. Unpublished internal document.

Russell, J. A., Weiss, A., & Mendelsohn, G. (1989). Affect Grid: A Single-Item Scale of Pleasure and Arousal. *Journal of Personality and Social Psychology, 57*, 493-502.

APPENDICES

Appendix A: Gallery Debrief Interview

1. Is today your first visit to the Nelson-Atkins? Yes No
2. Was there anything specific that you were hoping to see or do at the museum today?
3. [If do not mention Bloch Galleries] Before you came, had you heard about the newly-renovated European Art (1750-1945) galleries, also known as the Bloch Galleries? The new Bloch Galleries opened this past spring (March 2017). Yes No

- [If yes] Did seeing the Bloch Galleries play a role in your decision to visit?
 Yes No
- [If yes] Can you tell me a little bit more about that?

4. How would you rate your overall experience in the Bloch Galleries? [SHOW SCALE]

<input type="radio"/>	Poor	<input type="radio"/>	Fair	<input type="radio"/>	Good	<input type="radio"/>	Excellent	<input type="radio"/>	Superior
-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	-----------	-----------------------	----------

- Can you say a few words about WHY you gave it that rating?

5. What would you say is the main idea or message of this set of galleries?
(Or: What do you think the museum is trying to show or tell visitors with these galleries/in this set of galleries?)

6. How familiar were you with European Art from 1750 to 1945 **prior** to visiting these Bloch Galleries today? In other words--how familiar were you with the art in these galleries right here? [Point to Bloch Galleries and show on map.]

<input type="radio"/>	Not Very	<input type="radio"/>	A Little	<input type="radio"/>	Somewhat	<input type="radio"/>	Very
-----------------------	----------	-----------------------	----------	-----------------------	----------	-----------------------	------

- How would you rate your experience in the Bloch Galleries in terms of how well it expanded your knowledge of European Art from 1750 to 1945? [SHOW RATING SCALE]

<input type="radio"/>	Not Very	<input type="radio"/>	A Little	<input type="radio"/>	Somewhat	<input type="radio"/>	Very
-----------------------	----------	-----------------------	----------	-----------------------	----------	-----------------------	------

Comments:

- Was there anything you engaged with in these galleries that you felt especially contributed to this expansion of your knowledge?
 - PROBE: Why or how did that expand your knowledge?

7. Have you visited any other areas of the museum today or in the past? Yes No

- [If yes] Did you notice any differences between the Bloch galleries and the other areas of the museum that you have visited? Yes No
- [If yes] Please describe what differences you noticed.
 - [If yes] How did you feel about this different approach?

8. Did your experience in the Bloch galleries change your opinion of the Nelson-Atkins Museum of Art in any way? Yes No

- [If yes] Please describe this change.

9. Now, I'm going to show you some pictures of different things that you might have noticed in the galleries. Please indicate how much you used each of the following by writing directly on the page. Options for each are: Did not use, Used Minimally, Used Moderately, Used Thoroughly, or Used on Prior Visit. [HAND VISITOR INTERPRETIVE ELEMENTS SHEET] [IF NEEDED SHOW LARGE PHOTOS IN BINDER]

- Probe: Of the items you used, which contributed most positively to your experience?
- Probe for each item used: What did you think of [interpretive component]?
 - Positive response - What did you like about it?
 - Negative response - Why didn't it work for you?
- Probe if not used: For the items you didn't use, why didn't you use them? [Probe deeper for reasons why they used one type of technology over another].

10. Generally speaking, how do you feel about the inclusion of digital experiences (like the iPads, Color Composer, In the Details) in art museums?

- Probe: Who do you think these types of experiences are designed for?
- Probe: Do you generally think these enhance your experience or detract from it?

11. Art museums are engaging with different types of digital experience – some give more in-depth or customized content, some enable closer examination of the artworks, and some are intended to allow the visitor to create or design something themselves. Are there particular types of digital experiences that appeal to you more than others? Which ones? Why?

- Probe: What type of digital/technology experience do you usually like?
- Probe: Are there experiences you've seen in different museums that you might be interested in?

12. There are many different ways that museums can provide information about the artworks, artists, and historical events related to the art. In general, which of the following ways do you prefer to receive this type of information? Please select your top 3 choices (if applicable).

[INDICATE ON INTERPRETIVE ELEMENT PAPER]

- Why do you prefer [top choice format]?

13. We talked a little bit about your preferences for receiving information...now I'd like to know a little bit about your preferences for types of information...

14. Is there anything else you would like to tell us about your experience in the Bloch Galleries or the museum in general?

Appendix B: Personal Meaning Map Instrument

PRE-INTERVIEW

Have you been to the Nelson-Atkins before? (Note on Background Sheet)

Was there anything specific that you came to see or do today? (Note on Background Sheet)

Have you visited the European Art 1750-1945 Galleries (the Bloch Galleries) since they were renovated (since March 2017)? (Note on Background Sheet)

Now, we'll get started with the main activity. The purpose of this activity is to understand what kinds of associations visitors make with the art in the Bloch Galleries. This is not a test and we aren't here to measure your knowledge, but this is really about trying to understand what you associate with this type of art and what is top-of-mind for you before and after you visit these galleries.

HAVE VISITOR USE BLACK PENCIL

Here is a piece of paper with the words "European Art 1750 to 1945" printed in the center. Please take a few seconds to jot down any thoughts, feelings, ideas, questions—basically anything that come to mind—when you think of "European Art from 1750 to 1945." There are no right or wrong answers. We are just interested in what you think.

(Gesture in a circular motion around the page as talking, to demonstrate that visitor can write anywhere on the page, in any fashion).

RESEARCHER USE A GREEN PENCIL.

Do you feel finished? OK—I'd like us to take a few minutes to talk about what you have written here.

(Ask for clarification on any words you cannot read or do not understand. Rewrite those words so they are legible.)

Can you pick one of the ideas/words you wrote and tell me a little more about what you were thinking? Is it OK if I make some notes about what you are saying here on your paper?

(Use **green** pencil to write the additional comments from the visitor on the map. Number these comments #1.)

Great. Is there another word/idea you could expand on here?

Thanks for your patience as I record what you're saying here. (repeat as needed)

(Use **green** pencil to write the additional comments from the visitor on the map. Number these comments #2.)

Okay. Let's pick one more word or idea and tell me about it.

(Use **green** pencil to write the additional comments from the visitor on the map. Number these comments #3.)

Thanks so much for talking with me. Your thoughts are a valuable part of this process. Part of what we are trying to get a sense of is how a visit to these galleries affects your thoughts, feelings, or, ideas about the "European Art from 1750 to 1945." I would love to talk with you again after you finish seeing the galleries. It will only take about 5 minutes and I can give you your gift. So, come **right back here** after you finish seeing these galleries.

SHOW VISITORS BLOCH GALLERIES ON THE MAP.

You can spend as much time as you want in the galleries. There isn't any rush, just come back after you are done with your visit to those galleries.

Before you leave, I'm going to give you this playing card. This will help me find your paper when you come back after seeing the galleries. Make sure you bring it back before you go to another part of the museum.

(Write playing card number on the Background Sheet (e.g. 7Diamonds))

(Write the time that you COMPLETED the pre-PMM on the Background Sheet)

(Enter background information about the visitor on the Background Sheet and make any notes about the mapping conversation. Try to capture contextual issues in these notes, such as the general mood of the visitor, whether the discussion felt relaxed or rushed, if the visitor seemed nervous or comfortable talking about the ideas, if other people in the group contributed ideas.)

(Review the pre-map for:

- Legibility (visitor's writing and your writing);
- Completeness (try not to leave unfinished sentences);
- Use of correct pencil color (note if incorrect color was used);
- Visitor comments numbered in order discussed;
- No extra information that was not part of the interview should be written on the map. Write this on the background sheet if necessary.)

POST-INTERVIEW

Now, I'd also like to ask you about some different things that you may have used in the galleries. Can you let me know if you used any of the following things in the galleries? (Show images of interpretive elements as a reminder and ask how thoroughly they used each element – minimally, moderately, thoroughly. Indicate on background sheet.)

What do you think is the main idea or message that the museum is trying to share with visitors through the Bloch galleries? (Note on Background Sheet)

- (Further probe, if needed): What do you think the museum wanted visitors to know about _____ (answer to above)?

HAVE THE VISITOR USE THE **BLUE** PENCIL

Here is the map you did before you went into the galleries. Please take a few seconds to look over what you wrote down earlier and then make any changes, deletions, or additions that you feel like making. Again, what comes to mind - what thoughts, feelings, ideas, questions – when you think of “European Art from 1750-1945?” Again, this is not a test, we just want to know what associations are top-of-mind for you after visiting the galleries.

(If the visitor says they have no changes to make to their map, **note that on the map** and conclude the interview.)

RESEARCHER USE A **RED** PENCIL

(Ask for clarification on any words you cannot read or do not understand. Rewrite those words so they are legible.)

Thanks for your patience as I look this over.

Can you pick one of the things you wrote (either before or after you saw the galleries) and tell me a little more about it? (Use **red** pencil to write the additional comments from the visitor on the map. Number these comments #1.)

- Would you say that this idea was something new that you learned about today or was it something you already knew that was reinforced by your experience in the galleries? (Note on map within parentheses)
- Was there anything you engaged with in the galleries where you recall learning about that? (Show photos if necessary) (Note on map within parentheses)

Great. Is there another thing you could tell me about? (Use **red** pencil to write the additional comments from the visitor on the map. Number these comments #2.)

- Would you say that this idea was something new that you learned about today or was it something you already knew that was reinforced by your experience in the galleries? (Note on map within parentheses)
- Was there anything you engaged with in the galleries where you recall learning about that? (Show photos if necessary) (Note on map within parentheses)

Okay. Let's pick one more thing and tell me about it. (Use **red** pencil to write the additional comments from the visitor on the map. Number these comments #3.)

- Would you say that this idea was something new that you learned about today or was it something you already knew that was reinforced by your experience in the galleries? (Note on map within parentheses)
- Was there anything you engaged with in the galleries where you recall learning about that? (Show photos if necessary) (Note on map within parentheses)

We also have a few demographic questions we'd like to have you answer. (Hand Demographics Sheet).

Appendix C: Russell Affect Grid

PRE-INTERVIEW

SHOW PRE-VISIT RUSSELL AFFECT GRID.

Before we get started, I'd like to ask you how you are feeling right now. "I'm going to ask you to place a checkmark on this grid to represent how you are feeling at this moment. There are two dimensions on the grid. From bottom to top is a measure of your energy level and from left to right is a measure of feelings of pleasantness or enjoyment. For example, let's say you're on a roller coaster—your energy level is probably quite high, so you would put a checkmark somewhere in this top half of the grid. Now, if you're enjoying that experience you would probably put a checkmark somewhere over toward the upper right-hand quadrant, representing excitement, and if you're scared of roller coasters you'd be feeling something closer to stress and would put a checkmark on this left side. Now, let's say you're sitting in a lecture. Your energy level is probably lower than it was when you were on the roller coaster, so you would probably rate your energy level somewhere in the bottom half of the grid. If you're interested in what you're hearing and are enjoying yourself, you'll be on the right side, but if you are bored and really don't like or care for the lecture or topic, you'd be on the bottom left half. Does this make sense?

HAVE VISITOR PLACE A CHECKMARK ON THE RUSSELL AFFECT GRID WITH **BLACK** PENCIL

POST-INTERVIEW

SHOW VISITOR RUSSELL AFFECT GRID AGAIN

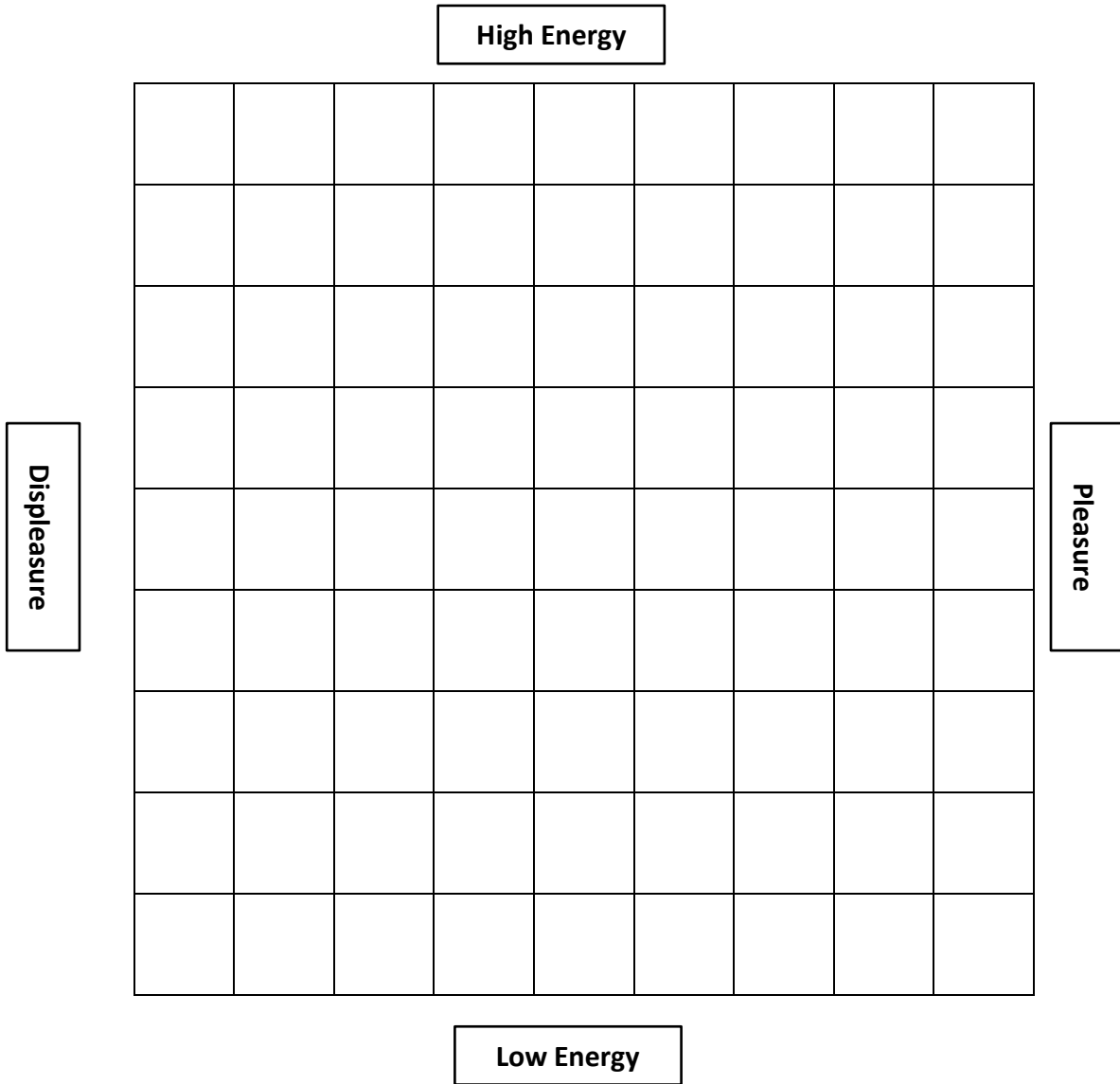
Before we get started, I'd like to ask you again to reflect on how you are feeling right now. Remember from bottom to top is a measure of your energy level and from left to right is a measure of feelings of pleasantness or enjoyment. Please mark how you feel right now.

HAVE VISITOR COMPLETE RUSSELL AFFECT GRID WITH **BLUE** PENCIL.

Can you tell me a little bit about how you feel that your experience in the Bloch Galleries might have influenced how you are feeling right now?

- Was there anything in particular that you engaged with (other than the art) that you feel had an impact on your emotional state?
 - (Further probe, if needed): Why do you think it had that impact?

(Note response on Russell Affect Grid)



How did experience in Bloch Galleries influence how they are feeling?

Anything they engaged with that had an impact on their emotional state?

Appendix D: Focused Interview – Gallery+

1. Why did you decide to stop and engage with this kiosk?

2. Overall, how would you rate the kiosk in terms of how much it enhanced your experience in the galleries? [SHOW SCALE]

<input type="radio"/>	Poor	<input type="radio"/>	Fair	<input type="radio"/>	Good	<input type="radio"/>	Excellent	<input type="radio"/>	Superior
-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	-----------	-----------------------	----------

- Can you say a few words about WHY you gave it that rating?

3. Would you say that you interacted with this kiosk minimally, moderately, or thoroughly?

<input type="radio"/>	Minimally	<input type="radio"/>	Moderately	<input type="radio"/>	Thoroughly
-----------------------	-----------	-----------------------	------------	-----------------------	------------

- [If minimal engagement] Why do you think you didn't explore the kiosk more thoroughly?

4. This kiosk has a number of different sections you can look at. Can you tell me which of these sections you looked at or used [POINT TO SECTIONS ON KIOSK. MAKE SURE TO ASK ABOUT ALL SECTIONS]?

<input type="radio"/>	Artworks	<input type="radio"/>	Artists	<input type="radio"/>	Events	<input type="radio"/>	Search
<input type="radio"/>	Activities (any)	<input type="radio"/>	Which artist?	<input type="radio"/>	Rants and Raves	<input type="radio"/>	Matchmaker

- Why do you think you chose to engage with certain sections, but not other ones?
- Probe: (If used search): What did you search for? Did you get a useful search result?
- Probe: (If used timeline): Did you use the timeline filter at all? Was that useful to you?

5. Was there anything about interacting with the kiosk that you had difficulty with or that you felt could have been improved?

- PROBE: Did you have any technical difficulties?

6. What do you think is the main idea or message that the museum was trying to share with visitors through this kiosk?

- Probe: What do you think the museum was trying to tell visitors about _____?

7. How did you feel engaging with this kiosk impacted your experience of looking at the artwork in the gallery, if at all?

- Probe: Why or how do you feel it had this impact?

8. Did you engage with any of the other digital experiences in these galleries?

- Yes No

- [If no] why do you think you chose to engage with this kiosk, but not the other experiences?

9. Art museums are engaging with different types of digital experience – some give more in-depth or customized content, some enable closer examination of the artworks, and some are intended to allow the visitor to create or design something themselves. Are there particular types of digital experiences that appeal to you more than others? Which ones? Why?

10. Thinking about the content on this kiosk—deeper information about the artworks, artists and relevant historical events—do you prefer to have this content available to you while you are in the gallery or do you think you'd prefer to engage with this content somewhere outside the galleries, either elsewhere in the museum or on a website at home?

11. Is there anything else you'd like to tell me about your experience with this kiosk?

Appendix E: Focused Interview – In the Details

1. Is this your first time visiting the newly-renovated Bloch Galleries (which opened in March of 2017)? _____

- **If no:** How many *other* times have you visited the new Bloch Galleries (excluding today)? _____
- **If no:** Is this your first time using this *In the Details* interactive?

2. About how long have you been using this interactive?

3. When you first stopped at this kiosk, what did you expect to be able to do here?

- How did your experience compare to what you expected?

4. Overall, how would you rate *In the Details* in terms of how much it enhanced your experience in these galleries? [SHOW SCALE]

<input type="radio"/>	Poor	<input type="radio"/>	Fair	<input type="radio"/>	Good	<input type="radio"/>	Excellent	<input type="radio"/>	Superior
-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	-----------	-----------------------	----------

- Can you say a few words about WHY you gave it that rating?

5. What do you think the museum is trying to show or tell visitors with this interactive?

6. Who do you think is the target audience that this interactive is designed for?

7. Would you say that you interacted with *In the Details* minimally, moderately, or thoroughly?

<input type="radio"/>	Minimally	<input type="radio"/>	Moderately	<input type="radio"/>	Thoroughly
-----------------------	-----------	-----------------------	------------	-----------------------	------------

- [If minimal engagement] Why do you think you didn't explore *In the Details* more thoroughly?

8. Was there anything about interacting with this device that you had difficulty with or that you felt could have been improved?

- PROBE: Did you have any technical difficulties?

9. How did you feel about the amount that you were able to zoom in on the paintings?

- Was it sufficient for you or did you want to be able to zoom in further?

10. How did you feel engaging with this interactive impacted your experience of looking at the artwork in the gallery, if at all?

- Probe: Why or how do you feel it had this impact?
- Probe: Did you go back to any of the works featured in *In the Details* for a closer look?

11. Are there any other ideas or items you would like to see added to *In the Details*?

- Probe: How would you improve or add to the content/experience already included?

12. Did you engage with any of the other digital experiences in these galleries?

Yes No

- [If no] why do you think you chose to engage with this digital interactive, but not the other experiences?

13. Art museums are engaging with different types of digital experience – some give more in-depth or customized content, some enable closer examination of the artworks, and some are intended to allow the visitor to create or design something themselves. Are there particular types of digital experiences that appeal to you more than others? Which ones? Why?

14. Thinking about the content on this interactive—close looking/ability to zoom in on specific areas of the image—do you prefer to have this content available to you while you are in the gallery or do you think you'd prefer to engage with this content somewhere outside the galleries, either elsewhere in the museum or on a website at home?

15. Is there anything else you'd like to tell me about your experience with *In the Details*?

Appendix F: Focused Interview – Color Composer

1. Is this your first time visiting the newly-renovated Bloch Galleries (which opened in March of 2017)? _____

- **If no:** How many *other* times have you visited the new Bloch Galleries (excluding today)? _____
- **If no:** Is this your first time using this *Color Composer* interactive?

2. About how long have you been using this interactive?

3. When you first stopped at this kiosk, what did you expect to be able to do here?

- How did your experience compare to what you expected?

4. Why did you decide to stop and engage with this interactive?

5. Overall, how would you rate this interactive (Color Composer) in terms of how much it enhanced your experience in these galleries? [SHOW SCALE]

<input type="radio"/>	Poor	<input type="radio"/>	Fair	<input type="radio"/>	Good	<input type="radio"/>	Excellent	<input type="radio"/>	Superior
-----------------------	------	-----------------------	------	-----------------------	------	-----------------------	-----------	-----------------------	----------

- Can you say a few words about WHY you gave it that rating?

6. Would you say that you interacted with this device minimally, moderately, or thoroughly?

<input type="radio"/>	Minimally	<input type="radio"/>	Moderately	<input type="radio"/>	Thoroughly
-----------------------	-----------	-----------------------	------------	-----------------------	------------

- [If minimal engagement] Why do you think you didn't explore it more thoroughly?

7. Was there anything about interacting with this interactive that you had difficulty with or that you felt could have been improved?

- PROBE: Did you have any technical difficulties?

8. Did you use the option to save or share your composition? O Yes O No

- Why or why not?

9. What do you think is the main idea or message that the museum was trying to share with visitors through this interactive?

- Probe: What do you think the museum was trying to tell visitors about _____?

10. How did you feel engaging with this interactive impacted your experience of looking at the artwork in the gallery, if at all?

- Probe: Why or how do you feel it had this impact?

11. Would you say that this interactive is related to the nearby artworks at all? If so, in what way?

12. Did you engage with any of the other digital experiences in these galleries?

Yes No

- [If no] why do you think you chose to engage with this digital interactive, but not the other experiences?

13. Art museums are engaging with different types of digital experience – some give more in-depth or customized content, some enable closer examination of the artworks, and some (like this one) are intended to allow the visitor to create or design something themselves. Are there particular types of digital experiences that appeal to you more than others? Which ones? Why?

14. Is there anything else you'd like to tell me about your experience with Color Composer?