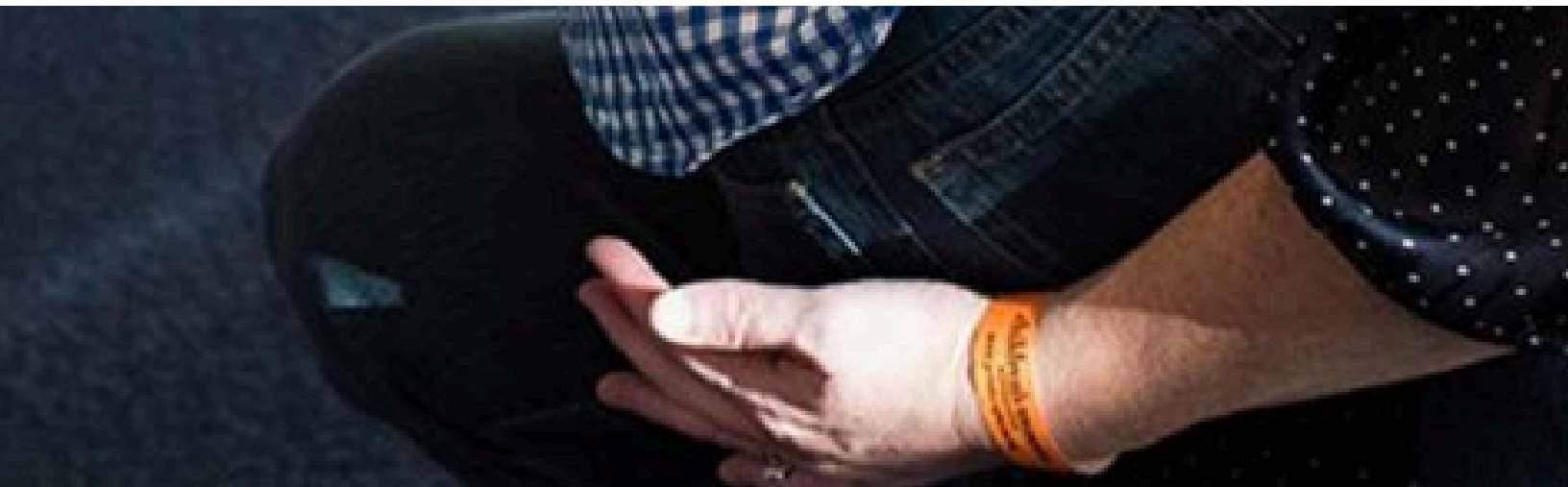




Character Development at Children's Museum of Pittsburgh

A Learning & Research Summary, 2023-2024

KT Todd, Megan McKelvey, & Rachel Madden



Executive Summary

Thanks to generous funding support from the Lilly Endowment, Inc., Children's Museum of Pittsburgh engaged in a year-long planning process to explore the topic of character development. From fall 2023 through summer 2024, the Museum's Learning and Research Department led a range of research and evaluation activities to inform the planning efforts. These research and evaluation activities included:

- Conducting a literature review of research and practice about character education
- Creating of a position paper about the Museum's approach to character
- Determining what character words our audience uses most often
- Learning about our community's character goals and values
- Evaluating children's understanding of character traits at different ages
- Exploring how to engage about character with multi-lingual audiences
- Investigating teachers' approaches to character development
- Prototyping exhibits and programs designed to foster character exploration

The Learning & Research team engaged more than 1,000 Museum visitors and community members through these activities, which resulted in several overarching learnings:

- Character development is beautifully aligned with the Museum's mission, supporting prior work and supporting us to pursue our strategic vision more deeply.
- Children, families, educators, and other members of our audience and community are hungry to engage with the topic of character development and see the Museum as a strong potential resource for meeting their needs in this area.
- The Museum can successfully design both exhibits and educational resources that engage children and families in learning about, practicing, and discerning the role of character in their lives.

The data summarized in this report demonstrate that the Museum is primely positioned to pursue the topic of character development in ways that will have substantial positive impacts on children, families, staff, and community members--helping us all live richer and more purposeful lives and nurturing vibrant neighborhoods and cities in our region and beyond.



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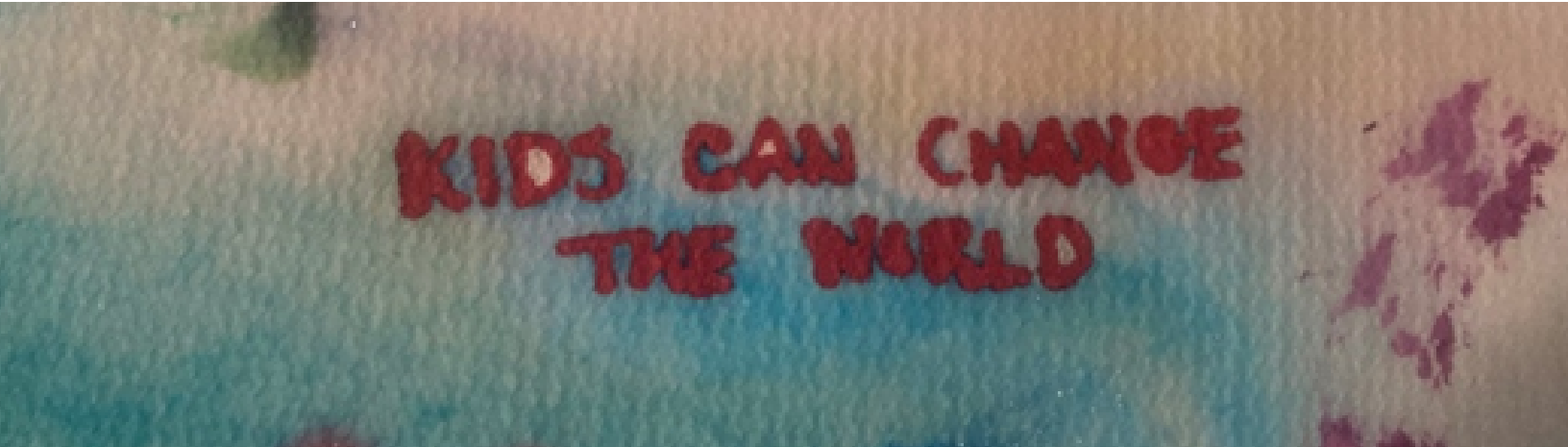
Introduction

Thanks to generous support from the Lilly Endowment, Inc., Children’s Museum of Pittsburgh began an exploration of the topic of character development in fall 2023. This project began with a year-long planning period during which the Museum: 1) learned about what character development was, how it aligned with our mission, and how our audience felt about the topic; 2) prototyped exhibits and educational programming that supported character development; and 3) built connections with partners and advisors who have shared interests in supporting children and families’ character growth—particularly our media partners at Fred Rogers Productions.

This report summarizes the activities that the Museum’s Learning and Research Department led during the planning period. Children’s Museum of Pittsburgh’s Learning and Research Department is one of the museum field’s largest and most accomplished research and evaluation groups. Through a portfolio of federally- and privately-funded grants as well as general operating support from the Museum, our team of Learning Scientists uses data to inform our work and improve the broader field.

For this project, we began by reviewing existing literature about the topic of character development and working with our team to consider what that research and practical knowledge meant for our organization. Next, we engaged our Museum audience about the topic to learn what resonated for them and how they envisioned the Museum becoming part of their character development journeys. Finally, we worked with our Exhibits and Education teams to collect formative data about the prototypes they developed. The upcoming pages provide an overview of each of these activities, offering a general sense of what we did and learned.

If you are interested in further detail about anything in this report, please reach out to Dr. KT Todd, Director of Learning and Research, at ktodd@pittsburghkids.org.



KIDS CAN CHANGE
THE WORLD

Part 1: Grounding our Approach in Prior Research

While Children’s Museum of Pittsburgh has an extensive background in developing innovative and inclusive experiences that support children’s growth and social-emotional learning, the specific topic of character development was new to our team. To begin our exploration of character development, the Museum’s Learning and Research team conducted a review of existing literature about the topic. This included resources that the Lilly Endowment had recommended such as the Jubilee Centre’s Framework for Character Education and sources linked from that report; materials that Dr. Arthur Schwartz and Dr. Beth Purvis highlighted at the Lilly Endowment grantee meeting in Washington, DC; published research literature about the topic of character development; and documentation of practical work in the area of character education including curriculum standards, school policies, and evaluation reports.

After summarizing this material and discussing it with others in the Museum, the Learning and Research team developed a preliminary position paper to guide our work. This paper defines how the Museum thinks about character, discusses how a pursuit of character development is aligned with the Museum’s mission, and then lays out a framework about how we approach the topic. For the sake of this report we will share two key elements that informed our work. First, the position paper defines character development as shown on the next page.

The Jubilee Centre categorizes character virtues in four ways:

1. Intellectual virtues

These traits focus on pursuing learning and determining appropriate actions at the right time. Examples include curiosity, critical thinking, etc.

2. Moral virtues

These traits focus on ethical behavior. Some examples are honesty, respectfulness, and courage.

3. Civic virtues

These traits relate to being a good citizen or neighbor. Examples include service, volunteering, and acting with civility.

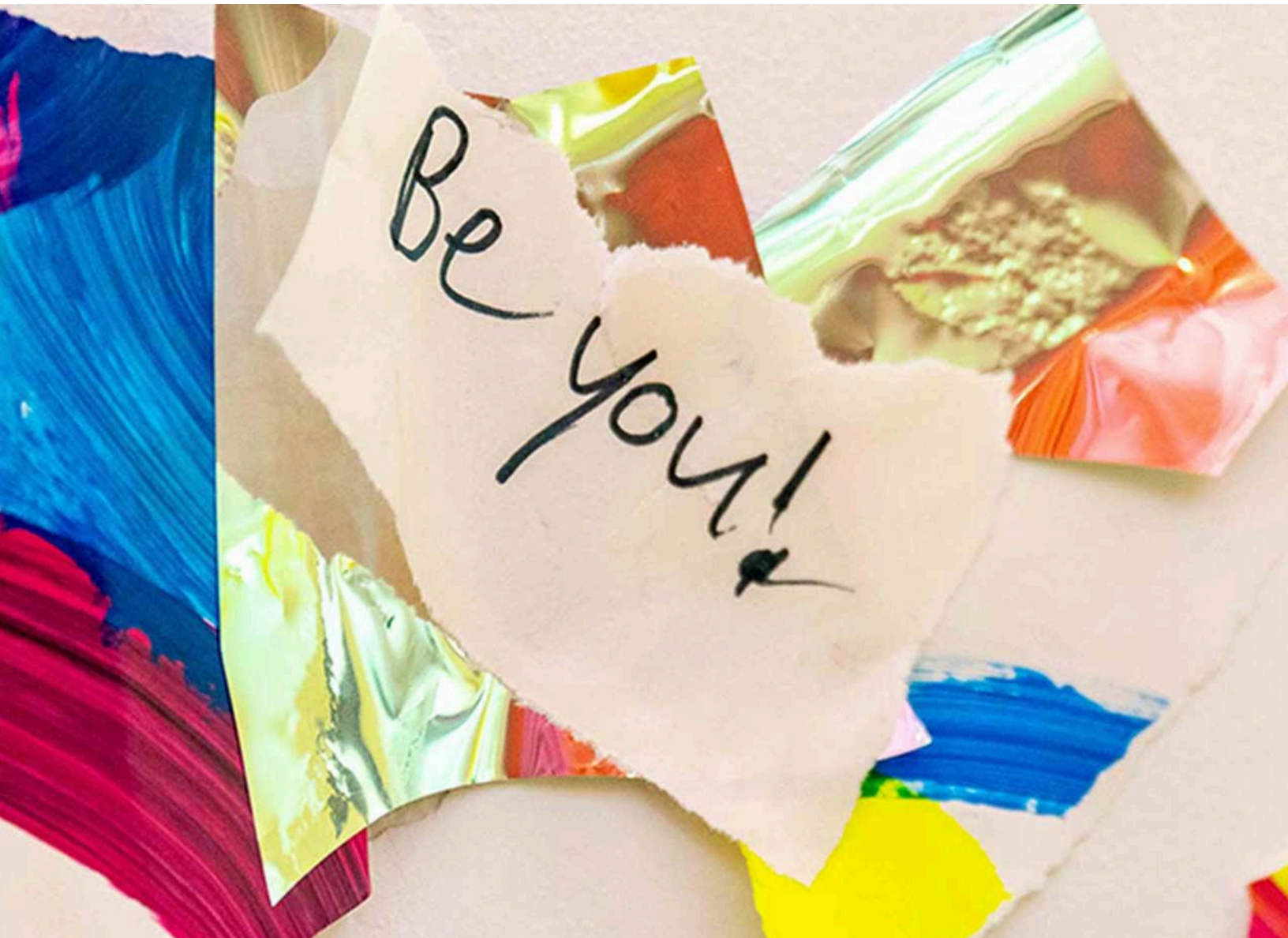
4. Performance virtues

These traits support and strengthen the other virtue types through personal skills such as confidence, resilience, and motivation.

Adapted from the Jubilee Centre for Character & Virtues. (2022). The Jubilee Centre Framework for Character Education. Birmingham, UK: University of Birmingham.

Children's Museum of Pittsburgh's Definition of Character

A person's character is what centers them in their world, influencing the ways they approach situations and make decisions; their interactions with other people, animals, and the environment; and their inner states and intentions. While the notion of character is universal, it has no single, agreed-upon definition. However, we can think of character as what qualifies someone as a "good person"—including their values, behaviors, and motivations. Character is context-dependent, and our understandings of character evolve throughout our lifespans. Educational experiences that focus on character provide opportunities for people to learn about different values and character traits; practice behaving in ways that enact those traits; and engage in critical thinking about what elements of character are most important to them and how this varies based on where they are, what is happening, and who they are with.



The second element of the position paper that is important for understanding the activities in this report is a section of the framework about the processes of character development that we hope to see through our Museum experiences. These three processes guided our decisions when designing exhibits and programs and they shape the ways we evaluate the experiences: in short, they are the behaviors we hope to see from the children and families who engage with the Museum’s character development activities.

The Processes of Character Development at the Museum

Learning

Character development requires foundational knowledge about what character is and what character traits are. Building learners’ vocabulary about character facilitates their ability to discuss, reason about, and engage in character-driven behavior. Sharing stories about characters who demonstrate positive character traits can provide exemplars for learners to emulate. Recognizing that character is often learned socially, we develop resources that empower adults to navigate these concepts alongside young children.



Practicing

While basic understanding about character is necessary, experts have noted that school-based character education programs often prioritize knowledge and underemphasize practical application of character. The Museum’s experiential learning environment is a safe space for this practice-based character education. Curated museum experiences create opportunities for learners to exercise character traits and build character skills. These experiences may focus on practicing a single trait or may present situations that visitors can approach with different character strengths, each resulting in different outcomes.



Discerning

Beyond learning and practicing skills, our capacity to internalize character and use it to guide our lives depends on us taking the time to reflect and process our learning. Furthermore, character is not static; it demands moral thinking about how to do the right thing at the right time for the right reasons. Thus, the Museum designs opportunities for people to consider multiple character traits and assess their utility in various contexts. This critical thinking can range from simple question—like which traits might be most valuable in a given scenario—to supporting visitors as they articulate the values that matter most to them and make commitments about how they plan to enact those values in their lives.



The position paper has continued to shape our work throughout the planning period and as we plan our full implementation project. It is also a living document; we have adjusted it as we continuously learn more about character. Just as we hope that children and families will discern their relationship with character throughout their lives, we expect that our understanding of the topic will always be evolving as we commit to ongoing exploration of character development.

Part 2: Learning about Character with our Audience

Following our initial review of existing resources and consideration of how the Museum's mission aligns with frameworks of character development, the Learning and Research team embarked on a process of learning from our audience about what character means to them and how the Museum might support their character growth. The following pages share about the data collection efforts we led for this purpose. Our overall approach was to iteratively learn about our audience while also refining the ways we talked about character and asked our questions. We also took a culturally-responsive approach wherein we selected data collection methods that would be most appropriate for the group we were working with—and we intentionally engaged with different segments of our audience to ensure that our data represented a wide, pluralistic view of character within our community. Thus, each example on the upcoming pages takes a slightly different angle. In some cases, the sample sizes were small but allowed for rich, ongoing conversations. Overall, we engaged with nearly 300 people through these activities.



Connecting to a Historical Figure as an Example of Character

One of the Museum's busiest days of the winter is Martin Luther King Jr. Day. Local schools are closed but the Museum is open to welcome our community and to engage them with activities that celebrate Rev. Dr. King's legacy. Seeing Rev. Dr. King as a leader who illustrated great character, we wished to engage our visitors with an activity that both helped us understand their personal character goals and provided a valuable experience for visitors. We used the following quote as a springboard:

"I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character."

- Rev. Dr. Martin Luther King, Jr.

What we did:

Visitors made bookmarks about their character strengths.

Audience:

36 MuseumLab visitors (typically age 10+)

What we learned:

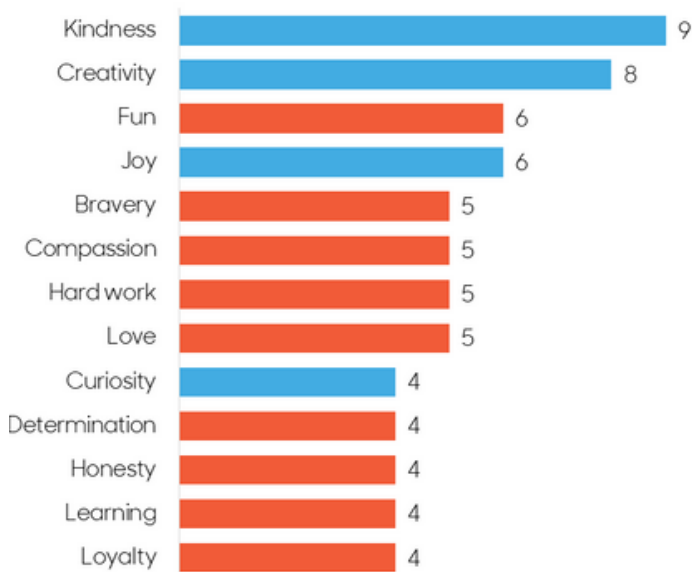
- Visitors used all the Museum's mission-related character words frequently, along with a range of other traits.
- People enjoyed making a take-home reminder of their character.



Members of the Learning and Research team made bookmarks that had this quote and a picture of Rev. Dr. King on one side. The other side, the top said "My character is." Evaluators invited Museum visitors to fill in this side of the bookmark by describing what their character is like. Pre-printed stickers were available with a list of character words. We ensured that there was an even number of words from each category of the Jubilee Centre's Framework. Additionally, we included some mission-related words that did not align neatly with the Framework. Visitors could also write in other words or draw pictures.

After completing their bookmarks, an evaluator would either write down the words or take a picture. Visitors happily took their bookmarks home and the Learning and Research team compiled the data to see what words people used most often. In total, 36 people made bookmarks and the words that came up most often were: kindness (which was on 9 bookmarks); creativity (on 8 bookmarks); joy and fun (each on 6 bookmarks); love, hard work, compassion, and bravery (each of these was on 5 bookmarks); and loyalty, learning, honesty, determination, and curiosity (which were each on 4 bookmarks). All of these words were on stickers (an additional 15 sticker words were used 3 or fewer times). Visitors also wrote in additional words, including intelligent (which was on 3 bookmarks), and amazing, artistic, calm, empathy, energy, forgiveness, friendship, happiness, helpfulness, honor, humility, industriousness, and silliness (all on one bookmark each).

Most commonly used words on bookmarks



Words in blue are part of the Museum's mission.



Surpassing Language Barriers in Character Development

The Museum's Community Engagement team does extensive work to build relationships with local groups who may not naturally find their way to the Museum. One such group is Hello Neighbor, an organization that serves immigrant, migrant, and refugee families in the Pittsburgh area. In winter 2024, the Museum hosted a family night for Hello Neighbor families where they enjoyed culturally-loved foods and explored the Museum while it was otherwise closed to the public. The attendees at this event spoke many different languages and came from countries all around the world.

Our Learning and Research team wanted to address the question of, how can we gather data about character among people with whom we do not share a common language?

To do this, we translated 15 character words into five languages and printed them on stickers with an icon that illustrated the character trait. There were three words for each of the Jubilee Centre's Framework categories (moral, civic, intellectual, and performance virtues) as well as three words that had been popular in the prior data collection activity but did not map cleanly onto the Framework.

What we did:

Children and families selected stickers about character traits that matter to them.

Audience:

18 refugee, migrant, and immigrant family members

What we learned:

- As with the MuseumLab visitors, loving, fun, and joyful were among the top 5 most commonly selected words.
- Even with a language barrier, we were able to engage in the topic of character.



Then we set up two different activities through which children and families could engage with these words:

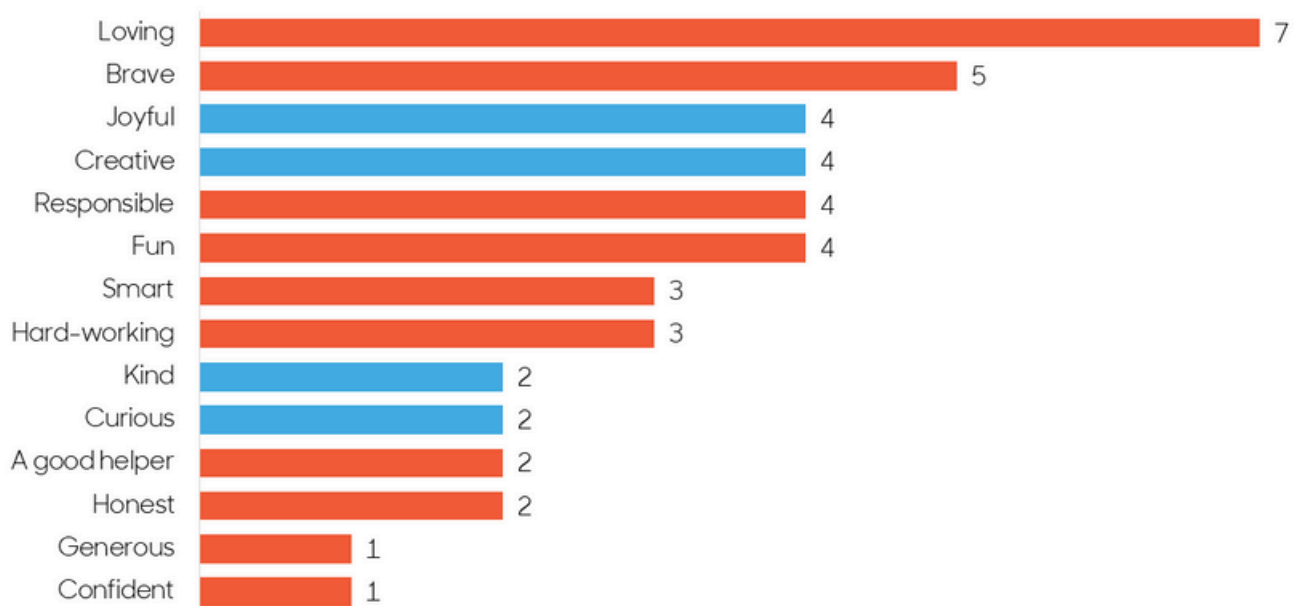
- On a table, we laid out the stickers and a sign (also printed in five languages) that told people to take a sticker for a trait that mattered to them.
- A second table had cardboard building pieces with the stickers on them and visitors were encouraged to select pieces with traits that mattered to them and use them to build a structure that illustrated their character.



An example sticker

Ultimately, the Learning and Research team engaged with 18 groups of people who selected a total of 46 character words. The chart below illustrates the frequency of words that were chosen, with loving being most common.

Most commonly selected words



Words in blue are part of the Museum's mission.

Investigating Teachers' Approaches to Character

In our ongoing effort to include a range of broad perspectives in our data, one of our data collection efforts focused on local teachers in K-12 schools. The research into character development that informed our position paper repeatedly emphasized the importance of teachers modeling character, implementing character curriculum, and generally being positive influences in children's character development. Thus, we considered educators to be a key audience for our exploration of the topic of character.

Fortunately, a group of educators was already visiting the Museum for a Teacher Night event organized by the Museum's Professional Development team. Educators came from a wide range of schools, including public and private schools in Pittsburgh and in the suburbs, and spanning Kindergarten through high school. Most attendees were classroom teachers but there were also administrators and support staff, including a superintendent and a school counselor.

What we did:

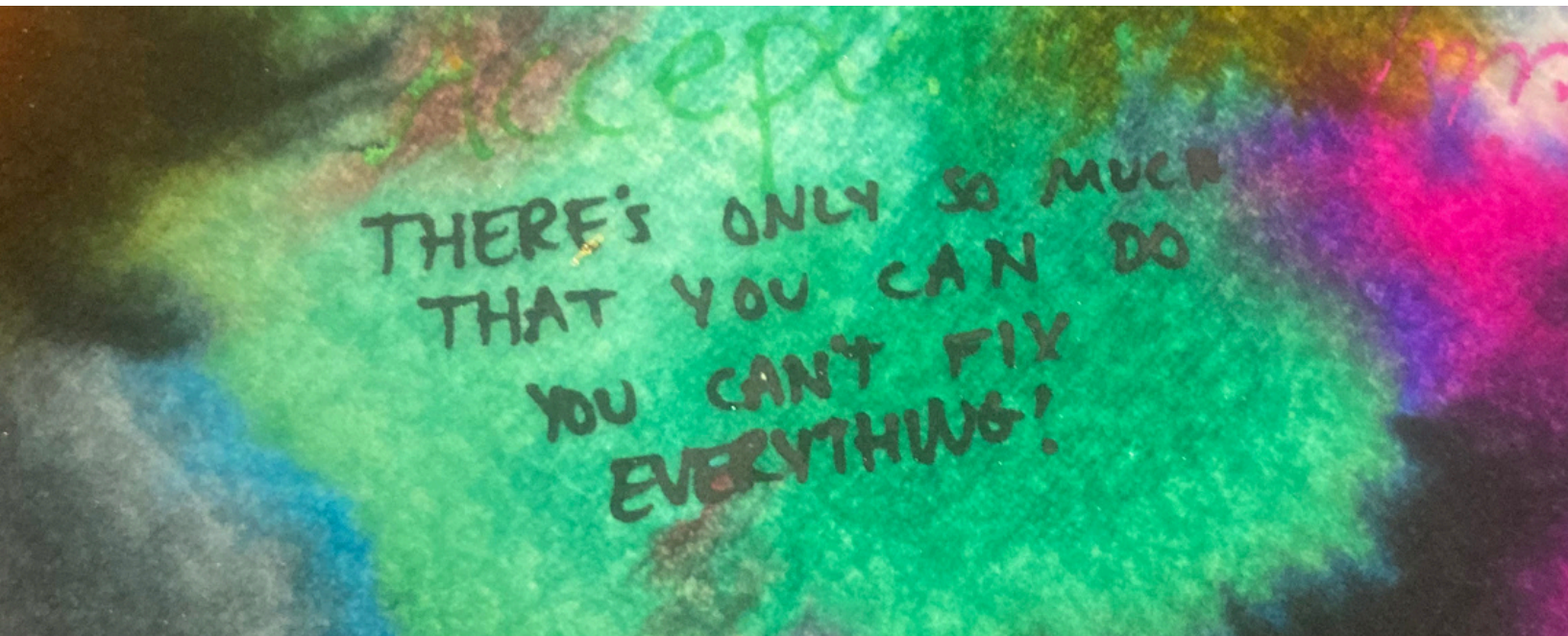
K-12 educators engaged in conversations about character while contributing to a collaborative mural.

Audience:

More than 20 adult educators from local schools

What we learned:

- There was a huge variety in how schools approached character.
- Teachers widely felt it was an important topic but some were hesitant to address the subject, fearing it could seem judgmental.
- An open-ended arts activity prompted deep conversations and left a beautiful product.



During this event, the Learning and Research team set up a collaborative mural activity that prompted educators to respond to questions about character both artistically and verbally. Evaluators facilitated the activity and conversation, which focused on the following questions:

- What values persistently guide your life?
- How does your school promote shared values and/or celebrate diversity of values?
- How do you support people in your community to grow into their best selves?
- What do you need to grow into your best self?

Through these conversations, we learned that there was great diversity in the values that persistently guided educators' lives, but honesty and love were common amongst many of the people we spoke with. Teachers shared a variety of approaches to character development: some of their schools had robust character programs through which they had collaboratively developed and continually nurture shared values. Others noted that they steered away from the topic because they felt it could backfire, feel hypocritical, or come across as judgmental. Educators reported that they supported their community members through instructional design, role modeling of a strong work ethic, addressing students' cheating, and interpersonal gestures of kindness. They shared that they needed more sunlight and down time to be the best versions of themselves.



Exploring Young Visitors' Character Vocabularies

Recognizing that some character words and concepts are complex, we sought to understand the familiarity of different words amongst families with different ages of children. To do this, we surveyed 67 adult Museum visitors, whose children were roughly evenly split amongst the age categories of 0-5, 6-11, and 12-17. The survey consisted of a single sheet of paper with a list of character words, which were divided into an even number of the Jubilee Centre Framework's categories as well as an additional category of mission-relevant words outside of Jubilee's definitions. The adults were asked to indicate the age of their child (and to pick one child if they had multiple). Then, they would circle words they used frequently with their child and cross out words they did not use with their child. There were also blank spaces to write in additional character words they use that were not originally on the list.

What we did:

Adults indicated their child's age and shared what character words they used frequently and infrequently.

Audience:

67 adult Museum visitors who were parents or caregivers of children aged 0-17

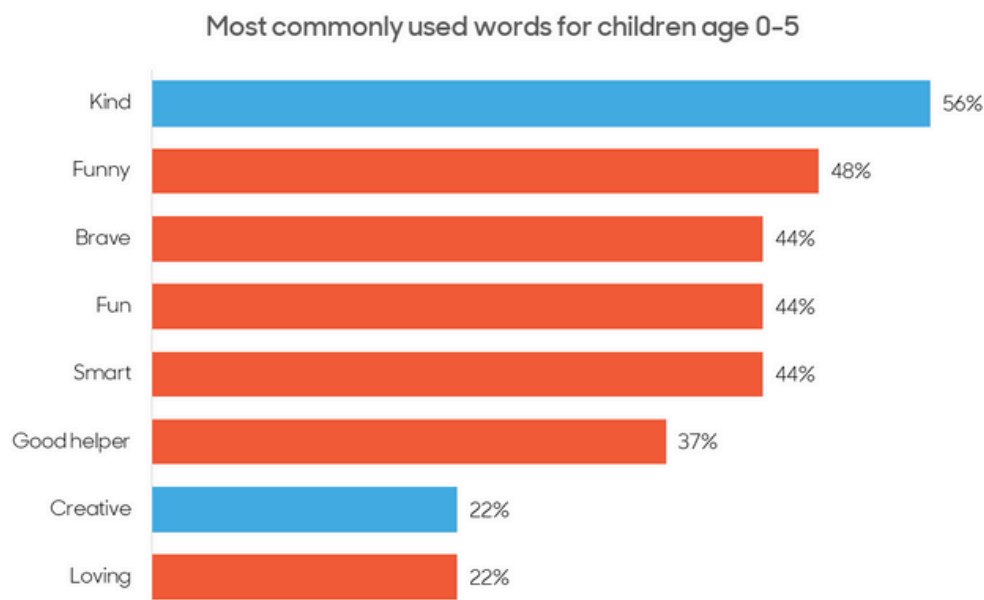
What we learned:

- Children's character vocabulary changes over time.
- Kindness (a mission word) was the most common character word for all age groups.



Through this data collection effort, we learned that some words were used fairly (in)frequently with consistency across age groups whereas some words were more common among just younger or older children. For instance, "kind" (one of our mission words) was the most frequently used word overall, with at least 50% of adults in each age group noting that they used it often with their children. Only one person (a parent of a 6-11 year old) indicated that they did not use the word "kind" frequently. Two terms were especially common among the youngest age group but were less common for older children: "brave" and "good helper." In contrast, the words "smart" and "responsible" were very common for children aged 12 and older but were much less common for the youngest age group. As shown in the graph below, the most commonly used words for the youngest age group (the focal group for the Museum's implementation grant) were: kind (56%), funny (48%), brave (44%), fun (44%), smart (44%), good helper (37%), creative (22%), and loving (22%).

Looking at the categories of character vocabulary, the "other" category (joyful, loving, etc.) was most common for all age groups, followed by moral (brave, kind, etc.), civic (generous, good helper, etc.), intellectual (curious, creative, etc.), and performance (hard-working, confident, etc.). For all age groups, adults were more likely to cross out performance words than to circle them; this was particularly common for the youngest group.



Words in blue are part of the Museum's mission.

Measuring Visitors' Skills in Identifying Character Traits

Familiarity with character words is one piece of character literacy; understanding and applying these concepts is another component. For this data collection activity, a member of the Learning and Research team developed a tablet-based game. The screen shared a character word (both written and spoken aloud so non-reading visitors could enjoy the game) and then asked the participant to select one of two pictures that illustrated the word. Each person went through multiple rounds of this activity for about 5 minutes (word order was random, including a range of words across the Jubilee Centre's Framework categories).

Like the survey data collection described on the prior pages, we were interested in differences across age groups. So, we recruited Museum visitors who were 0-5, 6-11, and 12-17 (the sample size for this oldest age group was small, so findings about this group are less conclusive). We also gathered data from a comparison group of adults. All together, 131 people played the game.



What we did:

Visitors played a tablet-based game to identify pictures that matched different character traits.

Audience:

131 Museum visitors including children and adults

What we learned:

- The ability to identify character traits in other people strengthens as children age.
- Civic traits are particularly challenging for young children to identify.
- All age groups struggled to identify kindness, perhaps because there are many differing definitions of it.

In analyzing the data, we looked at how many "correct" answers people got and how quickly they made their choices (response time is a common measure of task difficulty, implying the amount of brain processing). As we might expect, both accuracy and reaction time improved with age. The 0-5 and 6-11 groups noticeably trailed older game-players. By age 12-17, players' accuracy and reaction time were roughly on-par with adults' results.

The most notable gap was with civic virtues (generous, good helper, etc.), where 0-5 year olds' average was 56% (barely over chance) and their average reaction time was about twice as long as older players'. Young children's accuracy was strongest with intellectual traits (curious, creative, etc.), for which their average was 83% correct, compared to 88% for children age 6-11 and over 90% for older game players. Young players' reaction time was fastest (and closest to adults') for moral traits such as bravery.

When looking at the data for individual words instead of categories, the data tended to follow the same trends with one notable exception: all ages had slow reaction times and low rates of accuracy for the word "kindness." This is particularly interesting, given that our prior data (as shared in prior sections) show that kindness is very commonly used in people's vocabularies and is one of the traits people say they value the most. Based on the Learning and Research team's prior research about kindness, we hypothesize that these results may be because people have broad and varied definitions of kindness that may make it difficult to identify in picture form.



Listening Deeply to Local Children and Parents

To get rich, qualitative data from local families, the Learning and Research Department coordinated a charrette-style focus group. For some of the activities in this multi-generational event, all ages engaged together. In others, adults and children did parallel tasks such as making cards and puppets that illustrated the character strengths of other family members, role-playing games, an activity where participants physically shredded representations of their character guilt and committed to positive future habits, and more.

Five local family members attended the focus group. The families found their way to the event through a recommendation from a local community organization that the Museum regularly works with, which serves low-income, Black students in the area. None of the participants were regular Museum attendees. This offered a valuable perspective of local neighbors the Museum could reach through expanded programming. Two attendees were adults. Between them, they parented seven children, ranging from a baby to college. Three children attended; one was pre-Kindergarten and two were in middle school.

During the event, we gained tremendous insight about what families value and how they thought about character development. The groups talked about character being an essential asset that carried them through childhood challenges such as moving homes, parents splitting up, separation anxiety when starting Kindergarten, and more.

What we did:

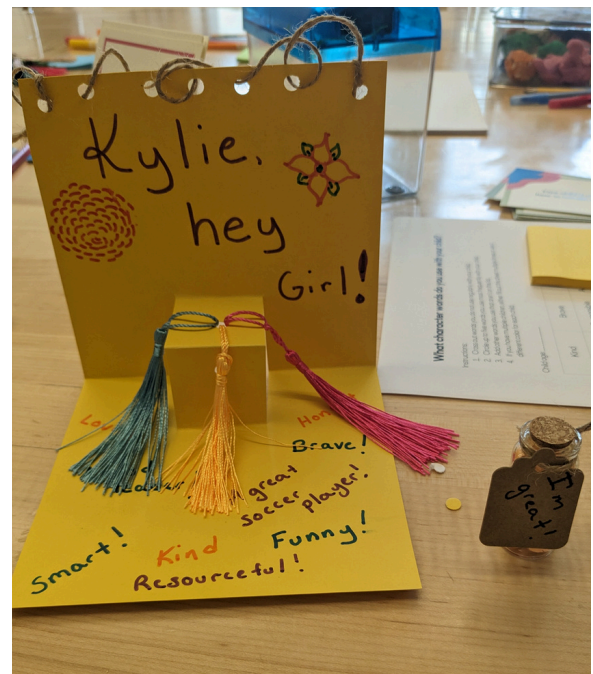
Local family members engaged in a series of conversational and arts-based activities about character.

Audience:

Five residents of the Northside neighborhood where the Museum is located

What we learned:

- Families were deeply engaged with the topic of character and craved spaces where they could discuss it with others.
- Open-ended conversations were highly valuable entries into character.

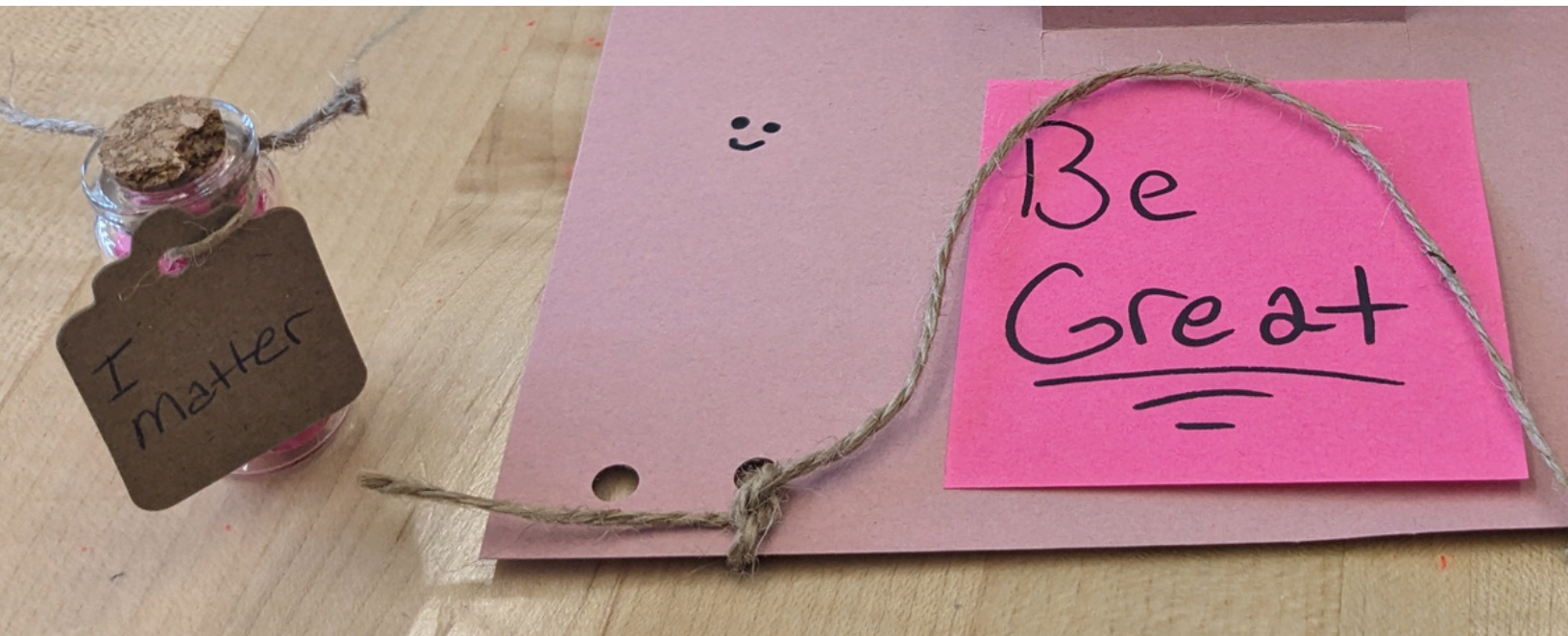


We learned that parents valued and sought spaces to discuss character-related challenges that arose for them—although they recognized that scheduling could be difficult and online spaces were often easier to navigate. Some of the most pressing character-related concerns our participants faced were:

- Managing emotions, putting words to their feelings, and finding productive ways of dealing with anger (particularly among younger children)
- Addressing children who say mean things to each other (especially among school age children)
- Finding impactful ways of discussing character with children without being condescending or nagging
- Figuring out how to adjust character education for different kids' styles, recognizing that each person is different
- Promoting patience both in the moment and trusting that long-term practicing of character will lead to valuable outcomes

The attendees committed to numerous character-related goals for themselves and their families, including:

- "To be happy and not stressed about money."
- "Being the best I can be and understanding that it's ok where you are right now."
- "I think the biggest hope for me is self-love."
- "To be the person my daughter inspires me to be."
- "To always remain grateful and humble with all life's achievements."
- "Always share a positive outlook."



At the end of this event, kids and parents exchanged cards that shared what they saw as each other's strengths. This moment filled the room with happy tears and hugs. Over the course of the morning, the facilitators felt like they formed some of the most meaningful bonds with visitors that they had ever encountered through a Museum program of this type and length. This event became pivotal in the way we thought about character development at the Museum. Up to this point, we had been working to identify a small set of character traits to focus on. However, this conversation highlighted the value of inviting our audiences to state for themselves what character traits matter for them, rather than us determining what we think is most important. Although our exhibits and programs will highlight certain traits, we determined that we wished to keep some experiences open-ended.



Part 3: Prototyping Character Development Experiences

The data collection efforts described in the prior sections were designed to help us understand our audience's views and familiarity with character development. After engaging in this learning, we embarked on designing and prototyping learning experiences that intentionally foster character growth. This consisted of two main types of experiences: 1) unfacilitated museum exhibits that visitors could engage with at their leisure and 2) facilitated educational resources that an adult (parent, teacher, museum educator, etc.) could use to lead activities or programs with children in a more structured manner. The following pages describe what we learned through testing preliminary versions of these two types of learning experiences with more than 700 people.



Observing Visitor Engagement with Exhibit Prototypes

Prototyping is an essential part of the Museum’s creative design process, which allows us to see firsthand how visitors react to activities before we have invested too much in them to make changes. In spring 2024, the Exhibits team prepared five prototypes for testing with Museum visitors:

Character Garden:

Visitors chose from a large selection of pots labeled with character traits. Then they put their pot under a spigot and turned a crank to make an animation of water appear on a screen. Visitors watched their character trait respond to the water—just the right amount made it grow and bloom into a beautiful flower, but too little water made the plant parched and too much made it waterlogged. This activity visualized the concept that character traits are situationally dependent; too much of a good thing can be harmful.

Following updates based on the prototyping results, two copies of the Character Garden (shown at right) are now fully installed in the Museum so children can enjoy this character-based activity every day.

What we did:

Evaluators observed and interviewed visitors who engaged with “rough draft” prototype exhibits.

Audience:

707 Museum visitors and attendees at an event for families experiencing homelessness

What we learned:

- The character garden, frottage table, and responsibility table were highly engaging.
- The frottage table and responsibility table were especially effective at prompting groups to engage in discussions about character.



Responsibility Table:

Character often means balancing multiple responsibilities. At this activity, visitors engaged in a physical representation of this balancing act. First, visitors selected pucks with different tasks (taking care of pets, cleaning your room, etc.) and fun activities (arts and crafts, vacation, etc.). Then, they arranged the pucks on a wobbly table to see if they could get all their responsibilities to balance without tipping the table.



Music Mat:

In this auditory activity, visitors engaged with a floor piano placed in front of a mirror. When someone stepped or put pressure on the floor piano mat, it played a note from the song, "It's a beautiful day in the neighborhood," from the Mr. Rogers' Neighborhood television show. Repeated activation of the mat would play the whole song. The activity was designed so two people could play side-by-side.



Positive Affirmation Photo Station:

At this activity, visitors chose from a range of character-related props and posed in front of a compelling backdrop to create a lasting memory. The bilingual activity included both English and Spanish: the props featured phrases such as "I am brave," "I am kind," "I am creative," and others, along with appealing graphics that illustrated these features.



Frottage Table:

This tabletop activity featured tactile images and words related to character traits. Visitors used crayons and paper to make a rubbing of the tactile elements that they could take home, providing a visual illustration of their favorite character traits or making a piece that they could give to someone else in recognition of their character strengths.



The prototyping process involved setting up each activity in the Museum and allowing visitors to freely engage however they normally would. During the day we observed general Museum and school field trip groups. In the evening, we observed guests from a community event for families experiencing homelessness. Evaluators observed how visitors used the activities to determine how engaging they were, to gather evidence that the groups were engaging with the character content, and to identify areas for potential improvement. In total, the Learning and Research team observed 707 visitors using the activities. Evaluators also interviewed 33 visitors after they used the activities to get their impressions of the exhibits and what they got out of using them. In addition, we interviewed 6 Museum educators who facilitated the experiences to get their input about how they compared to other Museum exhibits and how they could be improved.

Overall, the activities were engaging and most of them effectively supported visitors to engage with the material about character. Visitors stayed at the activities for an average of less than one minute (for the music mat and photo station) to six minutes (for the character garden). The character garden, frottage table, and responsibility table all had unusually high average engagement.

Benchmarking data to contextualize exhibit dwell time

As a point of comparison, a study that observed more than 900 children at over 300 exhibits in three different museums found that the average dwell time for an exhibit was 62 seconds.

Dancstep, T., & Gutwill, J. P. (2019). Towards disrupting the status quo of exhibit design: A data reanalysis to support future research.

working adventurous
 innovative cheerful
 creative
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 Res

There was a range in how visitors engaged with the topic of character. The frequency with which groups spoke about character during their use of an activity ranged from 0% (at the music mat)* to 77% (at the frottage table). The observation also identified several easy-to-fix accessibility issues and informed adjustments to signage and design to make it more evident what visitors could do at the activities. Interview data helped us understand unfamiliar words that the Exhibits team can adjust, confirmed that people were able to draw connections between the activities and their daily lives, and offered suggestions for how to make the activities more accessible. One visitor described their time at the frottage table by saying:

"We learned patience. We took turns. We had a bonding moment and picked words for each other."

Prototype	Dwell time	Character evidence	Confusion and accessibility
Character garden	6 minutes	30% talked about character	33% had confusion about what to do
Frottage table	5 minutes	77% talked about character	25% had confusion about what to do
Positive affirmation photo station	< 1 minute	13% talked about character	No observed issues
Responsibility table	3 minutes	73% talked about character	60% had confusion about what to do
Music mat	< 1 minute	0% talked about character*	21% had confusion about what to do

**No visitors were observed talking out loud about character at the Music Mat activity, but 48% of interviewees described the song as being about kindness, neighborliness, or another character-relevant description.*

Learning from Children and Facilitators about Programming Prototypes

The Education team developed and prototyped a series of facilitated, character-related activities with summer camp groups at the Museum in summer 2024. Each summer camp session started with a Museum educator leading a story time with a book focused on character learning. This included introducing and describing character terms, showing how our actions can impact others, and how we perceive others based on their actions. In the second part of the session, the facilitator led an activity that was designed to support children to practice character skills. These activities included:

Puppet-making:

Campers made a puppet out of a paper bag or sock with markers, gems, buttons, yarn, and other materials. Campers came up with a name and character trait for the puppet.

Superhero-making:

Campers colored, decorated, and assembled a 2-D cut-out superhero. Educators encouraged campers to come up with a superhero name and superpower.

What we did:

Evaluators observed Museum-based character programming and interviewed the facilitators who led the programs.

Audience:

Approximately 40 children enrolled in the Museum's summer camp and 4 Museum educators

What we learned:

- The story books were effective at introducing new character concepts.
- Children especially enjoyed more active programming, such as the card game and finger puppets.



Mural:

Campers were asked to “imagine what a better world would look like” and draw how to achieve this on table-size sheets of paper. The facilitator encouraged collaboration on drawings.

Finger puppet show:

The campers picked out a finger puppet, location, and situation to act out character scenarios. Two to three campers would kneel behind a table and act out the scenario to the other campers in the audience.

Card game:

Two to three campers would pick out a character trait, choose how strongly they would act out that trait from 0 to 100%, and a facilitator would read a scenario. Campers acted out the scenario with their chosen trait and percentage in mind. The facilitator would then ask the campers in the audience what they noticed and what they might have done in the situation.



Following the successful prototyping of the card game (shown at right), the Museum produced and printed multiple copies of a next iteration of the game, which can now be used with regular Museum programming.



To better understand and identify improvements for implementing facilitated character learning experiences, the Learning and Research team conducted evaluations based on how the character activities supported campers' character learning and practice, what was engaging or confusing, and what worked well or could be improved. As part of the evaluation, the Learning and Research team conducted eight observations of the summer camp activities, with 8–11 students in each session. Camp groups included ages 4–5 and 6–8. During observations, evaluators took field notes on notable actions and quotes from campers, counselors, and facilitators. Following the session, we conducted four one-on-one interviews with facilitators, who read the stories and led the character practice activities.

Through the observations and interviews, we found that the activities successfully supported children to learn about and demonstrate character through the various stories and projects. Facilitators stated that the stories were helpful in introducing new character terms, and that they were able to use the books to ask prompting questions and emphasize key messages. During the activities, campers were observed practicing character through traits they assigned to their puppet or superhero. The finger puppet and card game helped with identifying a character trait, acting it out, and seeing the consequences. Campers of all ages seemed more engaged with activities that were more active (e.g., the finger puppet and card game activities). In several cases, children were exposed to the same activity multiple times and found that it was less engaging after the first session.



Conclusion

Over the past year, the Learning and Research Department at Children’s Museum of Pittsburgh has led a range of research and evaluation activities to inform the Museum’s planning activities about how to engage with the topic of character development. Through a literature review, the creation of a position paper, a range of front-end data collection efforts to learn about our audience’s views about character, and prototyping of exhibits and programs, we have arrived at several overarching learnings:

- Character development is beautifully aligned with the Museum’s mission, complementing prior work and supporting us to pursue our strategic vision more deeply.
- Children, families, educators, and other members of our audience and community are hungry to engage with the topic of character development and see the Museum as a strong potential resource for meeting their needs in this area.
- The Museum can successfully design both exhibits and educational resources that engage children and families in learning about, practicing, and discerning the role of character in their lives.

In conclusion, the data summarized in this report demonstrate that the Museum is primely positioned to pursue the topic of character development in ways that will have substantial positive impacts on children, families, staff, and community members--helping each of us live richer and more purposeful lives and nurturing vibrant neighborhoods and cities in our region and beyond.

