

THE INTERACTIVE EXHIBIT: TEXAS MUSEUMS AND THE IMPORTANCE OF
INTERACTIVE EXHIBITION DESIGN

by

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ABSTRACT

This research article examines the form and function of interactive exhibit elements in history museums to demonstrate that interactivity can create engaging experiences for museum visitors. I use two major research strategies: an examination of scholarship on museum studies and exhibition design and an analysis of four (4) case studies. These case studies include observations and analysis of leading Texas history and science museums: The Bullock Museum of Texas History; the Witte Museum; the National Museum of the Pacific War; and the Dallas Holocaust and Human Rights Museum. Based on these case studies, this article argues that museum interactives can be broken down into three categories based upon visitor choice and type of engagement: Inviting Interactives that engage visitor curiosity; Immersive Interactives that engage a visitor's sensory experience; and Dialogic Interactives that invite conversation. Through a discussion of scholarship and analysis of these three interactive categories, this article contends that interactives are an essential part of visitor experience and are vital to ensure exhibit design evolves with ever-changing interests of the public.

I. INTRODUCTION

Museums are unique learning spaces that offer experiences and opportunities not often found in traditional schooling. A visitor chooses to visit a museum rather than pick up a book on the subject(s) discussed in the exhibits from the comforts of their own home. Therefore, the draw to a museum is not solely based in the pursuit of knowledge alone; visitors want to connect to history through unique experiences. Museums offer a place to see history through material culture, to engage with history through interactive exhibition design and participate in community events. The goal of any museum towards its public audience is to spark interest, create connection and understanding, and give visitors an engaging experience.

The public viewed nineteenth and early twentieth century museums as closed off, exclusive places that catered to the rich and influential. They were viewed as a place for the wealthy and educated individuals in a community to show off their collections to the leisure class. In *Reinventing the Museum* (2012), Amalia Mesa-Bains describes the efforts museums are taking towards “dismantling the museum as an ivory tower of exclusivity” and changing the traditional views that the public have of these institutions.¹ The twenty-first century museum is trying to create spaces that are inviting, social areas for all aspects of their community while still upholding some of the more traditional elements of exhibits. Interactivity and participatory design play a huge role in creating these types of spaces and changing the public views on what a museum has to offer.

Interactives are elements of the exhibit that require more from the visitor than passive viewership. Interactive elements in an exhibit engage the senses, such as visitors’

¹ Amalia Mesa-Bains, “The Evolving Conversation on the Paradigm Shift” in *Reinventing the Museum*, ed. Gail Anderson (New York: Altamira Press, 2012), 11.

sense of hearing or touch. These elements can also invite the visitor to engage their critical thinking or problem solving skills in an exhibition space, such as through games or puzzles. Interactives that engage the visitor in the information presented allow museums to be participatory. In her book, *The Participatory Museum* (2010), Nina Simon claims that a participatory museum “supports multi-directional content experiences...[it] serves as a “platform” that connects different users who act as content creators, distributors, consumers, critics, and collaborators.”² The design is not only for individual interaction with the display but for all visitors to connect with the different displays and with one another (viewing others’ contribution and leaving their own for future visitors). Interactive elements within exhibits contribute greatly to the goals of a participatory museum by connecting visitors with information, each other, and the museum staff.

Museums already engage humans’ natural curiosity, but it seems another aspect of human nature could be key to exhibit design: our social nature and our need for accomplishment. Visitors express a need for easily accomplished goals to participate in social interactions, and the knowledge of how their participation is utilized. Gamers researcher Jane McGonigal has studied the relationship between what makes humans happy and museum exhibit design. McGonigal states that four things are needed to create happiness in people which include “satisfying work to do, the experience of being good at something, time spent with people we like, and the chance to be part of something bigger.”³ Museum professionals consider this research in exhibit design concerning how people tend to make museum visits a social interaction, take part in something on a larger scale, and often enjoy completing tasks as part of their experience. The four different

² Nina Simon, *The Participatory Museum* (San Francisco: Museum 2.0, 2010), 2.

³ Nina Simon, *The Participatory Museum*, 18.

elements that McGonigal found creates the most happiness, which also leads to satisfaction, in a person's participation in any activity can guide museums in designing exhibits.

A visitor attends a museum to engage with the exhibits and subject matter presented through traditional text, artifacts, photos, and interactive elements. John H. Falk in his book, *Identity and the Museum Visitor Experience* (2016), explains that "the realities of the museum, in particular the exhibits and objects visitors look at, the labels and guides they read and listen to, as well as the programs they watch and participate in, all influence [visitor] experience."⁴ Visitors attend museums for a great variety of reasons with different interests and backgrounds. Therefore, each experience and the things visitors take away from these exhibits are unique to each person.

The case studies in this article include observations and analysis of leading Texas history and science museums: The Bullock Museum of Texas History; the Witte Museum; the National Museum of the Pacific War; and the Dallas Holocaust and Human Rights Museum. Based on these case studies, this article argues that museum interactives can be broken down into three categories based upon visitor choice and type of engagement: Inviting Interactives that engage visitor curiosity; Immersive Interactives that engage a visitor's sensory experience; and Dialogic Interactives that invite conversation. Through a discussion of scholarship and analysis of these three interactive categories, this article contends that interactives are an essential part of visitor experience and are vital to ensure exhibit design evolves with ever-changing interests of the public.

⁴ John H. Falk, *Identity and the Museum Visitor Experience* (New York: Routledge, 2016), 97.

I. METHODOLOGY

This study draws on four case studies regarding observations and analysis of interactive elements within leading Texas history and science museums. These museums were: The Bullock Museum of Texas History, the Witte Museum, The National Museum of the Pacific War, and the Dallas Holocaust and Human Rights Museum. The focus and mission of each museum differed but all had a common goal of creating exhibits with a stimulating and engaging visitor experience. A common theme throughout these mission statements were words and phrases such as “engage,” “to create an experience”, and “inspire.” Three museums aimed to tell the story of a historical event or place while one, the Witte Museum, interpreted science and natural history.

The Bullock Texas State History Museum located in Austin, TX encompasses all of the Texas history from the first human occupation of the land to Spanish and French explorers, through its independence, and into the present day. The museum website states that their mission is to “engage the broadest possible audience to interpret the continually unfolding Story of Texas through meaningful educational experiences.”⁵ Museum exhibits at the Bullock rely on a range of material culture as well as interactive design for visitors to explore the state’s history from the first humans in the area to present day. Visitors can explore a recovered shipwreck, historic maps of Texas, Civil War uniforms, ranching artifacts such as barbed wire and farming equipment, as well as the Texas flag that traveled to the moon. As the official state history museum of Texas, the Bullock is an essential case study for analyzing how interactive exhibit elements function in Texas-based museums.

⁵ “Be In The Heart Of Texas,” Bullock Texas State History Museum, accessed January 27, 2021, <https://www.thestoryoftexas.com/about/about-the-museum>.

The National Museum of the Pacific War, a history museum located in Fredericksburg, TX interprets the history of the Pacific Theatre of the Second World War and Admiral Nimitz. The museums website states that their “mission is to educate and inspire present and future generations about World War II in the Asiatic-Pacific Theater and the relevance of its lessons.”⁶ Throughout the exhibits visitors are immersed in the buildup of the war in Europe, America’s entrance into the war, and its island hopping strategy across the Pacific. Visitors can look at WWII era vehicles and planes as well as listen to testimonies from soldiers on the battlefield as well as mothers on the home front. The National Museum of the Pacific War serves as a useful case study because the interpretation is focused on a single historical event rather than a broad survey of historical topics.

The Dallas Holocaust and Human Rights Museum, founded in 1984, turns its attention away from the Pacific Theatre to the European Theatre and the mass murder of millions during the Holocaust.⁷ The museum website states that they “are dedicated to teaching the history of the Holocaust and advancing human rights to combat prejudice, hatred, and indifference.”⁸ Through this history museum visitors learn about the events leading up to, during, and following the Holocaust and are confronted with the reality of atrocity through survivors’ experiences and interactive elements. The Dallas Holocaust Museum is an important case study for this project because it provides an example of a history museum with a clear social justice and commemorative mission.

⁶ “Home Page,” The National Museum of the Pacific War, <https://www.pacificwarmuseum.org/visit>.

⁷ “About the Museum,” Dallas Holocaust and Human Rights Museum, accessed January 2, 2021, <https://www.dhhrm.org/about/mission-and-history-of-the-museum/>.

⁸ “About the Museum,” Dallas Holocaust and Human Rights Museum.

The Witte Museum located in San Antonio, TX is a science and natural history museum with a wide range of subjects and interactivity. The museum website states: “The Witte Museum inspires people to shape the future of Texas through relevant and transformative experiences in nature, science and culture.”⁹ Since the museum’s founding in 1926, the Witte has undergone upgrades to changing technology and exhibit design as the museum studies field grew.¹⁰ The museum holds dinosaur bones, animal taxidermy, gems, the history of San Antonio including its rich part of the Texas ranching culture. The Witte Museum is an important comparison between history focused museums and those geared towards the sciences and natural history.

Several questions were taken into consideration when conducting my analysis of these four institutions including the goals of the museum as a whole, exhibit lay-out and subject matter, the use of interactive elements, and the overall experience of the visitor (myself). The most important questions asked during the research correlated with the interactive elements and their relationship to the exhibit, the museum, and the visitor. I considered: What is the purpose of these interactives (education, entertainment, both)? How do these interactives relate to “traditional” displays (wall text, labels, etc.)? Do the use of interactive elements further the mission of the museum and the experience for the visitor? How do these interactives support or enhance the goal of particular exhibits?¹¹ Based on these observations, I concluded that interactivity in museums falls within three categories. The next three sections will break down these categories and their place within the exhibit design.

⁹ “History,” The Witte Museum, accessed January 18, 2021, <https://wittemuseum.org/history/>.

¹⁰ “History,” The Witte Museum.

¹¹ COVID-19 protocols influenced the availability of interactives and volume of visitors (few attending the museum due to the pandemic)

II. INVITING INTERACTIVES

Inviting Interactive elements encourage visitors to think on questions or problems and seek additional information on the topics presented within an exhibit. Elements can include flip cards, pull-out trays, informational touch screens, and games that invite audiences to ask questions or pursue additional information on their own. According to Kenji Kobayashi, a neuroscientist at Columbia University: “Curiosity—our desire to know—is a fundamental drive in human behaviour.”¹² Interactives geared towards satisfying our innate desire to know more are thus a logical choice for exhibit designers. Curiosity makes humans very inquisitive and creating an interactive that utilizes the human nature of seeking out answers can be beneficial in museum exhibit design. Inviting Interactives build on this curiosity by often offering some type of prompt that requires action to satisfy that curiosity.

Flip cards offer exhibits a simple solution to incorporating an inviting interactive in a museum exhibit. Flip cards, much like flipping the page on a spiral notebook, can be presented in several formats such as a question on the front with an answer on back, or some other informative combination that adds to the existing exhibit. They invite visitors to satisfy curiosity by giving a readymade question or series of information to explore. The visitor still has the option of continuing the exhibit without engaging with the interactive while still understanding the purpose of the exhibit as the interactives are in addition to the exhibit. Exhibits should not rely on flip cards to convey vital information for an exhibit topic. However, flip cards can provide additional facts or items of historical

¹² Kenji Kobayashi, Silvio Ravaoli, Adrien Baranès, Michael Woodford and Jacqueline Gottlieb, “Diverse motives for human curiosity”, *nature human behavior*, (April 2019): 587, https://www.readcube.com/articles/10.1038%2Fs41562-019-0589-3?no_publisher_access=1&r3_referer=nature&referrer_host=www-nature-com.libproxy.txstate.edu.

note to accompany the exhibit and encourage visitors to pursue discovery on their own time.

The National Museum of the Pacific War located in Fredericksburg utilized flip cards as part of their interactive elements (Figure 1). While taped off due to COVID-19 safety procedures, this inviting interactive still held the ability to pique visitor interest. The flip cards asked relatively simple questions such as: “Can you identify these military ranks?” and “Can you identify these different types of military vehicles (planes, ships, etc.)?” These questions pertained to objects and information visitors encountered while exploring different battles of the Pacific such as vehicles or rank insignia. Flip cards can feature trivia questions to pique visitor interest in a historical subject. For example, one of the flip cards at the Pacific War Museum asks the question “What is a horse opera?” which is apparently slang for a Western movie.¹³ The flip cards can serve multiple purposes in addition to piquing curiosity such as a test of knowledge gained or one’s observation skills as well as a way for visitors to find additional information if this topic is something they do not know precisely. Using flip cards within the exhibit can help to get visitors thinking of other related topics with unique information or posing questions that a visitor might explore further upon leaving the museum.

Inviting visitors to interact with material culture, like opening the drawers in a cabinet, can also pique curiosity and enhance visitor experience. Drawers are similar to flip cards in strategy but unlike the cards have the possibility to store artifacts and other presentations of information rather than just writing or pictures. Unlike traditional display cases they are stackable creating multiple display areas in place of one traditional case or

¹³ “Horse Opera,” Lexico, accessed March 10, 2021, https://www.lexico.com/en/definition/horse_opera.

can be built into walls beneath existing cases saving space and decluttering the area for visitors. The Witte Museum in San Antonio utilized drawers to invite visitors to explore dinosaur fossils or identify animal tracks (Figures 2 and 3). In regard to the animal tracks displayed in the drawers, they might come in handy for visitors to possibly identify these after leaving the museum. The design of a drawer is an arrangement of text accompanied by artifacts or photos that are placed behind glass. The two main purposes of this type of element are to house artifacts and display relative information to those artifacts and the exhibit as a whole. Visitors have the choice of how many examples and exactly the amount of text based information they wish to engage with while still understanding the exhibits main points if they choice not to engage.

Button-based interactives invite visitors to engage with what is usually some type of visual or audio presentation that adds to the exhibit. Exhibits can invite visitors to press a button and start an audio recording, light up a spot on a map, or begin a video. The National Museum of the Pacific War featured an interactive where visitors could press a button in order to hear an account from letters that soldiers and others participating in the war wrote home. The audio for the letters might have been read aloud by survivors or members of the staff but hearing firsthand accounts always seems to make history a little more real. Hearing the voices describing war and its hardship can give visitors a small glimpse into the life of these individuals including all the hardships and struggles experienced by these soldiers or others touched by war. One such letter was a mother who wrote concerning the fate of her five sons, all serving on the same ship, after hearing news from someone stating that the ship had been sunk. Her letter drew the attention of President Roosevelt who personally wrote a condolence letter in reply for the

missing sailors. Ultimately the news came that all five of her sons were killed or drowned before rescue reached their location. No doubt this story had the power to bring any person sadness but most especially parents and those who know what is to wait for news on a loved one in the military. The interactive aims to create an empathy with either the soldier or the individual that they are addressing the letter through listening to another human voice rather than reading the printed text. Pressing a button in order to start an interactive has the added benefit of keeping the sounds from clashing in the exhibit space as it is not on a loop which can create additional noise when nobody is listening.

Inviting visitors to engage with educational games can be an entertaining way to learn and satisfy curiosity. The Bullock Texas State History Museum is home to the famous French explorer La Salle's excavated ship *La Belle* that sank off the coast of Texas. Along the glass case in front of the ship is an interactive screen that lets visitor's pack the supplies that would be carried aboard. The game allows visitors to select different materials, weapons, food, and other supplies that could possibly be brought along while also giving information of the different items. The game might be simple, but it provides an engaging way to learn what was needed or prioritized on expeditions to the New World as it challenges a visitors critical thinking skills. Games can be geared towards children to occupy them, however, if done right can be beneficial to all visitors.

Interactives can also be more of a full body experience rather than just using one's hands; however, this type of interactive is not utilized often within museums. Most interactives require a small physical action of moving an element to reveal something new which involves primarily just a visitor's hands. The Witte Museum's H.E.B Body Adventure is a very unique exhibit as it is primarily an interactive with supporting textual

information (Figure 4). This type of exhibit sounds like anatomy, but the mission is to promote knowledge of a healthy lifestyle including exercise. Once visitors enter, they can print a fitness pass and explore the many different stations, all containing participatory elements such as gaging walking speed, riding a stationary bike, or meditating. Traditionally the only exercise expected at a museum is the casual stroll of viewing the exhibits, which makes this level of interactivity quite unexpected. The exhibit works through its interactives; therefore, it is also unique as visitors can still obtain information by reading but do not receive the full benefit without participating. An interactive that invites visitors to engage their full bodies holds the visitor's attention and is a memorable way to present information.



Figure 1– “Field Challenge” Flip Cards at the National Museum of the PW Fredericksburg, TX



Figure 2 – “Dinosaur Drawers” The Witte Museum San Antonio, TX



Figure 3 – “Plant Eaters Drawers” The Witte San Antonio, TX



Figure 4 – “H.E.B Body Adventure” The Witte Museum San Antonio, TX

III. IMMERSIVE INTERACTIVES

Immersive exhibits transport visitors through engaging senses of sound, smell, touch, and sight. Immersive elements can include audio of bombs, flashing lights, textures, or an exhibit designed to resemble a specific place. Immersive interactives can be difficult to generate, however, they create an atmosphere and mood that might help visitors understand, empathize, and connect with those who experienced the events that are discussed in the exhibits. Elisa Mandelli argues in her book, *The Museum as a Cinematic Space* (2019), “when displayed alongside exhibits and artefacts,” audio and video elements in museums “almost ‘animate’ the display by introducing movement and ‘life’ in a space that is traditionally conceived as static and lifeless.”¹⁴ This is valuable for exhibit designers because doing so can “engage visitors on an emotional and embodied level, stimulating visceral and sensory reactions.”¹⁵ Immersive Interactives emphasize human emotions and sensory perceptions.

The use of sounds and lights can help create atmosphere or help illustrate a historical situation for an exhibit. The elements can come from videos or could be generated elsewhere in the exhibit. The National Museum of the Pacific War utilizes the sound of bombs and torpedoes along with flashing lights. The goal of these immersive elements is to create a small glimpse into how war was experienced for the soldiers during World War II and even more recent military conflicts. The exhibit featured other audio elements that allowed visitors to hear interactions happening between members on ships, planes, and submarines giving orders during island-hopping in the Pacific as well

¹⁴ Elisa Mandelli, *The Museum as a Cinematic Space: The Display of Moving Images in Exhibitions* (Edinburgh: Edinburgh University Press, 2019), 79-80, Accessed March 20, 2021. <http://www.jstor.org/stable/10.3366/j.ctvnjbh8k>.

¹⁵ Elisa Mandelli, *The Museum as a Cinematic Space: The Display of Moving Images in Exhibitions*, 79-80.

as alarms and signals. The elements were on a loop so visitors had no control over the immersion around them or when audio would occur, which paralleled the soldiers' experiences. The unpredictability allows visitors to put themselves in a soldier's shoes and gain some understanding and sympathy for what they went through during combat. However, there is a possibility for this type of interactive to bleed into other areas of the exhibit. The bleed over has the potential to frighten a visitor if too immersed in another section of the exhibit and a bomb goes off behind them or around a corner. If the bleed over is managed than immersive audio can be an effective way to evoke emotion and historical understanding from visitors.

Museum professionals are getting more creative in thinking around problems associated with interactives such as motion-activated audio. Sound is an element that is easy to clash with other parts of the exhibit if there are too many such elements or if the volume is too loud. Staff at the Witte Museum attempted a solution to bleed-over sound by utilizing motion sensors. The sensors seem relatively efficient on quiet days when there is not a dense number of people moving through the exhibits triggering several sensors at once due to both the number of people and high number of audio triggers. One exhibit, The South Texas Heritage Center, had upwards of fifteen to twenty triggered audio elements within three rooms. At the base of the stairs leading up to the exhibit stands a rancher who explains his job and daily life once visitors walk by him. The sensors are hidden from visitors so that it is a surprise when someone speaks or sound plays. If correctly spaced the use of motion sensors greatly reduces sound bleeding while achieving immersion by keeping visitors in suspense.

The modern museum often replicate historical environments to provide visitors with an immersive sense of setting foot in the past. Often it is expected that buildings have smooth floors made of wood, tile, or carpet. However, museums can utilize texture of flooring to immerse visitors in a relevant historical setting. A museum building cannot replicate the exact experience of walking through the Alamo itself. But texture can give visitors hints of where they are within that historical environment. The Bullock Texas State History Museum has smooth carpet or tile in most exhibit spaces, but occasionally diversifies the flooring material to immerse visitors in exhibit environments. An exhibit featuring the excavated remains of the shipwreck *La Belle*, for example, has raised wooden plank flooring to simulate walking on the deck of the ship in its prime. Another example is found in the exhibit interpreting the history of Texas independence. The floor in that space is an uneven, textured concrete resembling visitor's walking down a dirt road in the 1830s. The uneven floor does have its risks, but textured floors are an interesting design element that can create an immersive sense of place for visitors. Recreations also help to illustrate place such as a boxcar at the Dallas Holocaust and Human Rights Museum similar to the ones that transported people to the concentration camps (Figure 5). Visitors can enter the car and gain a small glimpse of what the conditions were like for the victims who endured that journey.

There is always the possibility that any interactive or element of the exhibit will not translate correctly. This is unfortunately the case at the Dallas Holocaust Museum within the exhibit, "Human Rights Wing: Ten Stages of Genocide." This exhibit requested that visitors maintain silence while viewing ten art installations highlighting the historical roots of genocide. These art installations emphasize events that have taken

place since the Holocaust such as the Rwandan Genocide and the War on Terror to demonstrate that genocide persists and to illustrate ten signs that experts have concluded are stages in the process of genocide. The request for silence among visitors resulted in the only sound in the room stemming from audio of a steady gong or unidentified booming. The sound could symbolize or represent many things such as a heartbeat or the drumbeat of time. However, the audio was repetitive and distracting within the silent room and was not clearly tied to the other exhibit elements. The failure for this interactive is it detracted rather than supported what the visitor sees, therefore ruining one's ability to focus on understanding the main exhibit content.



Figure 5 – “Boxcar” The Dallas Holocaust and Human Rights Museum Dallas, TX

IV. DIALOGIC

Dialogic interactives encourage visitors to engage with an element of an exhibit or staff using communication skills or some element of social interaction. These elements include speaking to staff members in an exhibit space or engaging with verbal presentations or holographic technology. Not every museum visitor will choose to engage with a dialogic interactive; however, they move the museum experience from an individual exploration into a multiple person discussion concerning the information within the exhibits and the museum's mission as a whole. According to museum consultant Kathleen McLean, "the presence of people whether they are visitors or staff transforms a constructed exhibition setting into a dynamic public space. Staff explainers, docents, storytellers, artists, and actors enliven exhibitions, create context, and encourage people to interact with each other and with the exhibits."¹⁶ Museums are not just an individual space but a place for discussion, social interaction, and community.

The classroom is a traditional learning environment for dialogic learning where students are encouraged to ask questions of their instructor and often one another. Classroom-like spaces for dialogic learning can be recreated in museums to host events and create opportunities to connect visitor groups to the content of the exhibits. Museums can use this for individual visitors, groups such as tours, and their educational programs to allow for a feeling of connectivity between the museum and others. The Witte Museum had many different classrooms or labs set up with different topics such as the live lab (wildlife) or the rock lab (geology) (Figure 6). The Live Lab specifically held turtles, snakes, and frogs that could be more of a hands-on learning approach. These

¹⁶ Kathleen McLean, "Museum Exhibitions and the Dynamics of Dialogue." *Daedalus* 128, no. 3 (1999): 88-89. Accessed April 12, 2021. <http://www.jstor.org/stable/20027568>.

spaces are important areas to connect with individuals as well as the community and to foster discussion regarding the museum's mission.

Another way to create dialog in museums is with informative presentations and staff actively engaging in conversations on the exhibit floors. The Witte Museum utilized both of these methods with staff spread throughout the exhibit spaces as well as a short 15-minute presentation entitled "Dress for the Job." The presentation was given by a staff member dressed in what was typically worn by Texas cowboys in the 1800s such as chaps, boots, and bandanas alongside a cart with these items to showcase to visitors. Questions were both asked of the visitor to gauge their knowledge in order to guide the presentation as well as posed by visitors to satisfy curiosity that come about during the presentation. The staff that walk the floor offer someone to discuss the exhibit with if visitors so choose as well as an additional source of information. The interactions create a sense of feedback for the visitors as it no longer is an individual exploration of traditional text and artifacts.

Museum professionals are incorporating new technologies to enhance dialogic interactives in exhibit spaces. The Dallas Holocaust Museum holds a Testimonial Theatre that features an interactive holographic interviews with survivors. Visitors can sign-up for a 30-minute time slot and ask survivors questions almost as if conducting their own interview. Visitors receive answers from the hologram that are pulled from a database of answers recorded from the original interview. This interactive allows visitors to ask questions, interact with real people impacted by the events of WWII, and eventually talk to those who have since died through the use of technology. This sense of dialogue gives visitors the opportunity to ask questions themselves concerning history and satisfy their

own curiosity. Their questions could lead to other inquirers and a desire to learn more about the person or topics discussed within the exhibit.

Visitors traditionally experience exhibits individually. However, visitors increasingly value social engagement in museums and attend exhibitions for social experiences. Visitors wish to contribute to the exhibits, discuss different subjects with others in the community, and facilitate a connection with the museum that lasts longer than a single visit. In *The Participatory Museum*, Nina Simon argues: “Staff interaction provides the most consistent kinds of social experiences, and staff can be important bridges to support and enhance even the most social exhibit design.”¹⁷ However, Simon also warns not to rely heavily on staff as the proportion between staff and visitors are unequal so creating an exhibit that can facilitate a social aspect between visitors without staff supervision is key.

The 2020 global pandemic caused museums to adjust how they utilize dialogic interactives in exhibits. There are reduced numbers of people allowed by local, state, and federal orders inside the museum at any given time as well as mandates to space visitors out to the recommended six foot distance. Theatres and other spaces have a reduction in capacity meaning that less visitors have the ability to interact together or with a certain element in the exhibit. Staff continue to facilitate these presentations and interactions with visitors as best as they possibly can with safety protocols in place. However, many

¹⁷ Nina Simon, *The Participatory Museum*, 29.

museums have returned to more of a traditional interaction between the individual alone and the exhibit space.



Figure 6 – “Live Lab Classroom” The Witte Museum San Antonio, TX

V. Conclusion

The value of inviting, immersive, and dialogic interactives to engage visitors in history museum spaces cannot be overstated. Museums are unique learning spaces that offer experiences and opportunities that contribute to visitors' desire to engage their curiosity, participate, and have social interactions. Interactives are a useful tool in exhibit design to foster that sense of connectedness, productivity, and an educational experience. All three of these interactive types create and enhance the exhibits and the museums overall mission while providing an engaging experience for visitors.

These case studies suggest that some forms of interactivity were more common than others. The most common found was the Inviting Interactives, as they are more traditionally used and easy to put together. The design element focuses more on individual choice and trivia questions, which is beneficial in an educational sense. Immersive Interactives were also common and allow for more creativity in the design of the exhibit with the use of senses to enhance an exhibit narrative. Humans rely heavily on their sense of sight, but it is not the only sense that museums can use in their designs. Allowing visitors to experience a fraction of the sensory input from a historical environment is a valuable way to create connection and understanding.

Lastly, Dialogic Interactives can be the future of interactives with projects like the Testimonial Theatre but also are a great way to connect on a personal level with visitors. Humans are naturally social animals who want connection with other people as well as with the material display. Interactives in general leave a great deal of creativity to the designers of exhibits in planning on how to engage with visitors and fulfill the overall mission of the museum.

Interactivity and the nature of participatory design are the future of museum exhibits. Museums struggle to shake off the reputation of ivory-towered institutions that has knowledge above the average population. Interactives foster a sense of taking control of one's experience and education when visiting the museum, which can make the institution feel more relevant and accessible to the visitor. Interactivity also creates exhibits that local visitors wish to return to and make the space not only a place for tourists but the community. In his book, *Identity and the Museum Visitor Experience*, John H. Falk argues that declining museum attendance nationwide suggests museums need to evolve or they will be left behind as a thing of the past.¹⁸ Therefore, the more relevant and engaging a museum becomes the higher its chance of remaining operational. Interactive elements are an imperative part of planning for the future of exhibit design and the museum visitor experience.

¹⁸ Falk, *Identity and the Museum Visitor Experience*, 244.

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