

EFFECTIVENESS OF INTERPRETIVE EXHIBITS AT BROWN V. BOARD OF
EDUCATION NATIONAL HISTORIC SITE

by

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B.S., Kansas State University, 2008

A REPORT

submitted in partial fulfillment of the requirements for the degree

MASTER OF SCIENCE

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College of Agriculture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2013

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Abstract

National parks reach out to millions of people each year by offering a number of recreational and educational experiences. People are exposed to new ideas and experiences in a national park that they may not get anywhere else. At Brown v. Board of Education National Historic Site in Topeka, Kansas, the National Park Service (NPS) compels visitors to step into the shoes of African American students in a segregated elementary school through the use of interpretive exhibits. This study was conducted to evaluate the effectiveness of the interpretive exhibits at Brown v. Board of Education National Historic Site. Most visitors sampled (91%) were visiting for the first time, indicating that the site does not have many repeat visitors. Race and the American Creed, the 30 minute film that plays in the auditorium, was found the most impactful exhibit by 34.3% of visitors surveyed. Expressions and Reflections, the temporary exhibit in the Kindergarten room, was the second most impactful exhibit, at 21.6% of visitors surveyed. The least impactful exhibit was the film Pass It On, at 0.9% of visitors surveyed. As a whole, visitors were most impacted by dynamic exhibits with a clear theme, while static exhibits and those that did not have a clear theme were not as impactful. This research will help guide Brown v. Board of Education National Historic Site staff as they contemplate future changes in the interpretive exhibits.

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Acknowledgements

I would like to thank my major professor, Ted Cable, for the time, guidance, and expertise he committed to helping me complete my report. I would also like to thank the rest of my graduate committee: Stuart Warren, Shannon Washburn, Jim Shroyer, and Wayne Geyer, for their guidance and support.

I would like to thank the staff at Brown v. Board of Education National Historic Site for their support and cooperation, and Michael Donnelly for his statistical expertise.

Finally, I would like to thank my family and friends who support me in everything I do. Each of you has played an essential role in this process.

Chapter 1 – Introduction

Background: History of Brown v. Board of Education

National Historic Site

Monroe Elementary School was one of four segregated black schools in Topeka. In 1954, the Supreme Court ruled school segregation unconstitutional, in response to a legal battle that included lawsuits from five states. The cases were consolidated under the name *Oliver Brown et al. v. the Board of Education of Topeka* after the father of Monroe School student Linda Brown (National Park Service, 2012a). The Court declared “...in the field of public education, the doctrine of ‘separate but equal’ has no place. Separate educational facilities are inherently unequal” (Supreme Court, 1954). The ruling was a watershed moment in the fight for civil rights.

In 1926, at a cost of \$110,800, the Topeka Board of Education built the Monroe School, an elementary school for black children. Although Monroe School has had several minor changes (such as replacing the roof and chimney, removing some partitions on the first and second floors, and adding air conditioning), it stands essentially as it did upon completion in 1926. However, the current building is not the first Monroe School building. The original building was built closer to 15th Street (north of its current location). The first Monroe School building “faced east onto a large triangular grassy park across Monroe Avenue that lay between the school and the nearby railroad tracks” (Heath, 1993). When the new school was built, the old building was razed (Heath, 1993).

In 1975, Monroe School closed due to lack of enrollment. Fairlawn Church of the Nazarene bought the school in 1981. Mark A. Stueve, President of S/S Builders, bought the school in 1985 to use as a warehouse. Mr. Stueve put it up for auction in 1990, but when the Brown Foundation intervened due to the school’s historical significance, and he learned of Monroe School’s involvement in the Brown decision, he took it off the market (Heath, 1993). The school was named a national historic site in 1992 (Wolfe, 2005). On May 17, 2004, Brown v. Board of Education National Historic Site (NHS) opened on the site of Monroe School.

Site Description

When you walk through the door of Brown v. Board of Education NHS, the first things you see are two signs hanging from the ceiling (Figure 1.1). One says “White” and points one way, while the other says “Black” and points the other direction. Although the signs are not authentic to the building, they do hit visitors on an emotional level and set the tone of the site.



Figure 1.1: "White" and "Colored" signs seen upon entering Brown v. Board of Education NHS

There are four main rooms in Brown v. Board of Education NHS, each with different exhibits about the historic case and about civil rights. The four main rooms are the Auditorium, The Education and Justice room, the Legacy of *Brown v. Board of Education* room, and the Kindergarten room.

Many visitors begin in the Auditorium, where a video titled “Race and the American Creed” plays (Figure 1.2). Throughout the video, an African American man and young woman discuss segregation and civil rights. The video is approximately 30 minutes long and has five parts: 1. “How Segregation Came to Be” presents the evolution of segregation, from Slave Codes to Black Codes to Jim Crow Laws to “separate but equal.” 2. “Resistance” is about fighting back. It discusses how, at one time, the only right blacks had was the right to tell the truth. It also discusses the Underground Railroad, the NAACP, and about blacks starting to be heard. 3. “War and National Service” discusses racism and rights for soldiers and how they have changed over time. 4. “Education” is about segregation in schools. It presents the fact that it used to be illegal

to teach blacks. Then the law was changed to “separate but equal.” The Brown ruling was the beginning of challenging all kinds of segregation. 5. Finally, “Civil Rights” discusses the courts overturning the Jim Crow laws and changing segregation, not just in education, but in all areas. It also discusses the passing of the Civil Rights Bill and blacks having “freedom...AND equality.”



Figure 1.2: The film “Race and the American Creed” playing in the auditorium

In the Education and Justice room, one exhibit, titled “The Five Lawsuits,” has a screen with buttons below it. Visitors can press the buttons to learn about the five different lawsuits that came together to form the case of *Brown v. Board of Education of Topeka* (Figure 1.3). A map of the United States is beside the screen to show where each of the five lawsuits originated.



Figure 1.3: The exhibit titled "The Five Lawsuits" in the Education and Justice Room

The “Hall of Courage” is a short hallway with two screens on each side that show, as the exhibit text says, “scenes from the front lines of segregation.” (Figure 1.4).



Figure 1.4: The “Hall of Courage” exhibit

“They Gave Us Good Dreams” is a video that shows accounts of well-educated African Americans that have big dreams or are already successful (Figure 1.5).

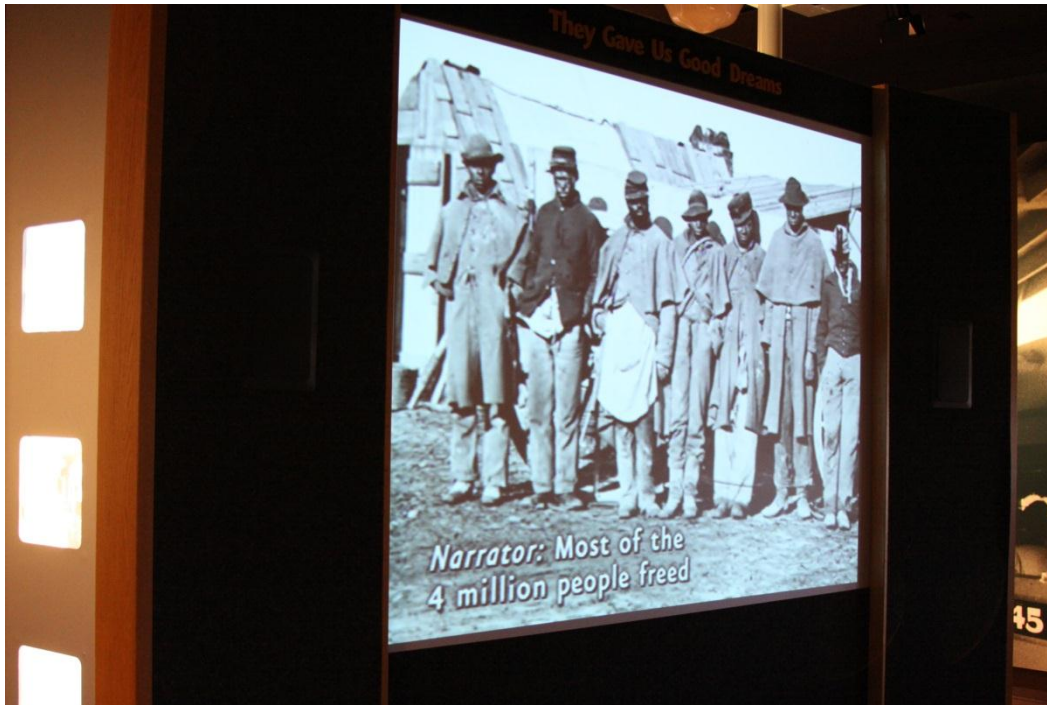


Figure 1.5: “They Gave Us Good Dreams” video

The exhibit “Education – The Path to Freedom” has a display that describes education opportunities for African Americans over time before the case of *Brown v. Board of Education* (Figure 1.6). There are also flipbooks titled “The end of slavery and the rise of Jim Crow,” and “The rise of education for African Americans.” The exhibit also includes an interactive display titled “Segregated Activities” in which visitors look at 10 pictures showing different activities, such as using public restrooms, telephones, and swimming pools, and select which activities they think were ever segregated somewhere in the United States (Figure 1.7).



Figure 1.6: “Education – The Path to Freedom” exhibit



Figure 1.7: Interactive display “Segregated Activities” within the exhibit “Education – The Path to Freedom”

There is a timeline with important events through history that begins with the year 1600 in the Education and Justice room and continues in the room of The Legacy of *Brown v. Board of Education*, ending with the year 2000 (Figure 1.8).



Figure 1.8: Timeline of important historical events

The Legacy of *Brown v. Board of Education* room has an exhibit titled “The Struggle Continues.” It includes a display about civil rights after the *Brown v. Board of Education* ruling (Figure 1.9). The exhibit has a display titled “Historic Figures,” where visitors can learn about people that were important to the Civil Rights Movement (Figure 1.10). Visitors can turn a handle to change which people they are learning about. The exhibit also has flipbooks, titled “The Civil Rights Movement,” “The Civil Rights Movement – Organizations,” “Did the Schools Integrate?” and “Brown’s Ripple Effect.”



Figure 1.9: "The Struggle Continues" exhibit

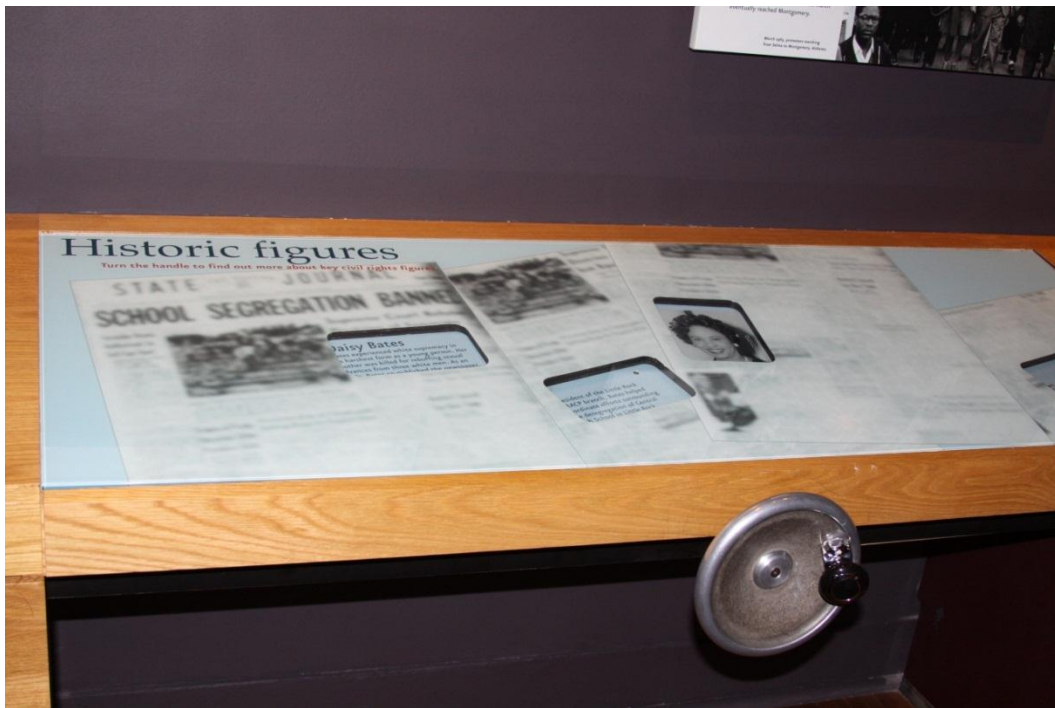


Figure 1.10: Interactive display "Historic figures" within the "The Struggle Continues" exhibit

There is a video titled “Pass It On” with modern people talking about racism and civil rights (Figure 1.11).

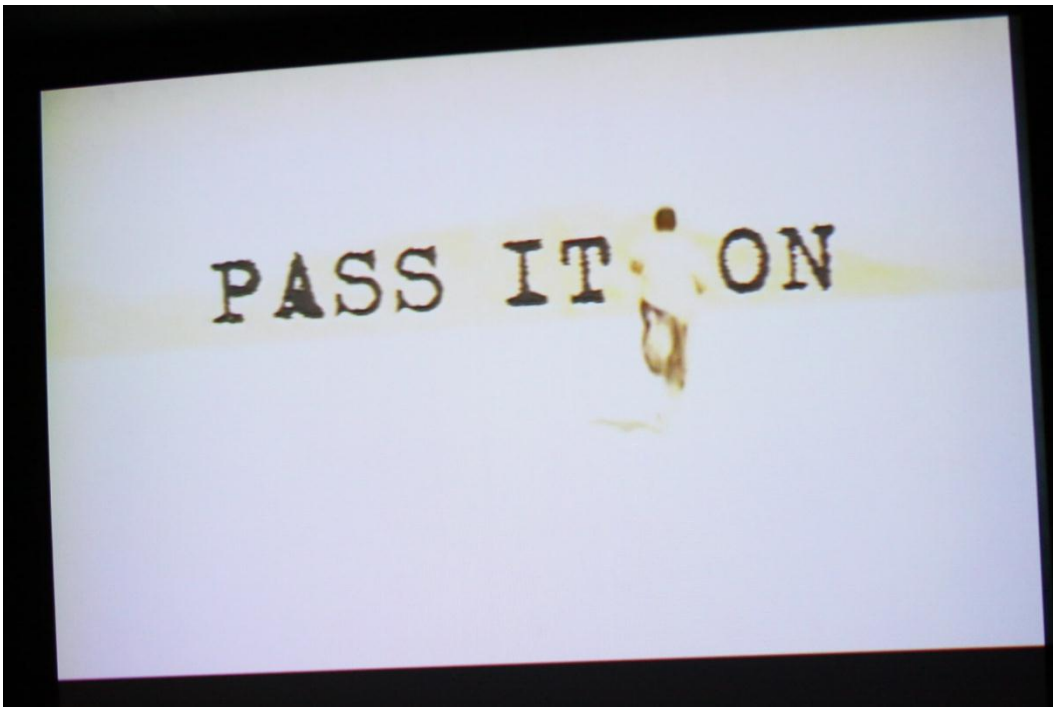


Figure 1.11: “Pass It On” video

“Let Justice Flow Like Water” is an exhibit with a display that presents the effects the *Brown v. Board of Education* ruling has had on inequality (Figure 1.12). There are two “Protest in Music” stations in the exhibit with headphones so people can listen to songs such as “What’s Going On” by Marvin Gaye and “The Times They Are a Changing” by Bob Dylan (Figure 1.13).



Figure 1.12: “Let justice flow like water...” exhibit

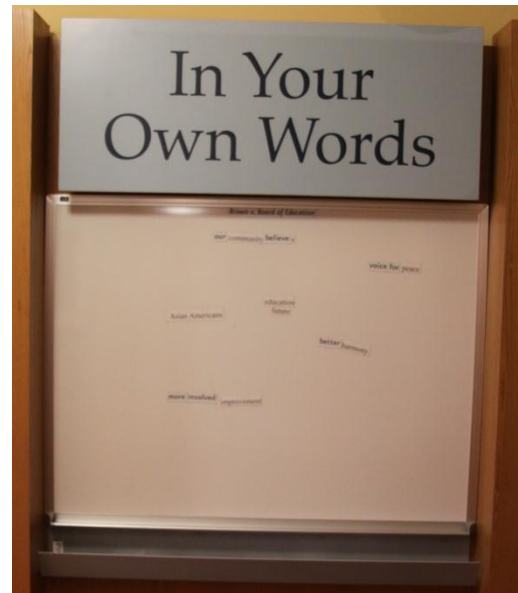


Figure 1.13: Songs available to listen to in the “Protest in Music” display within the “Let justice flow like water...” exhibit

The room that was once used as a Kindergarten classroom is now used for temporary exhibits. Two of the permanent areas of the room include Expression Station kiosks, where visitors can use touchscreens to do artwork or write their feelings, and a magnet board called “In Your Own Words,” which has magnetic words with which people can write their thoughts (Figure 1.14).



(a)



(b)

Figure 1.14: (a) “Expression Stations” and (b) “In Your Own Words” magnet board in the Kindergarten room

Interpretation: Definitions and Principles

Freeman Tilden, known as the “Father of Interpretation,” defined interpretation as: “An educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information” (Tilden, 1977).

The National Association for Interpretation (NAI) defines interpretation as “...a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource” (National Association for Interpretation, 2012).

Along with his definition of interpretation, Tilden (1957) wrote six principles of interpretation. These principles are important to interpreters at museums, historic sites,

national parks, and many other interpretive sites. Decades later, Beck and Cable (2011) elaborated on Tilden's principles and added nine more, for a total of 15 (Table 1.1).

1. To spark an interest, interpreters must relate the subject to the lives of the people in their audience.
2. The purpose of interpretation goes beyond providing information to reveal deeper meaning and truth.
3. The interpretive presentation—as a work of art—should be designed as a story that informs, entertains, and enlightens.
4. The purpose of the interpretive story is to inspire and to provoke people to broaden their horizons.
5. Interpretation should present a complete theme or thesis and address the whole person.
6. Interpretation for children, teenagers, and seniors—when these comprise uniform groups—should follow fundamentally different approaches.
7. Every place has a history. Interpreters can bring the past alive to make the present more enjoyable and the future more meaningful.
8. Technology can reveal the world in exciting new ways. However, incorporating this technology into the interpretive program must be done with foresight and thoughtful care.
9. Interpreters must concern themselves with the quantity and quality (selection and accuracy) of information presented. Focused, well-researched interpretation will be more powerful than a longer discourse.
10. Before applying the arts in interpretation, the interpreter must be familiar with basic communication techniques. Quality interpretation depends on the interpreter's knowledge and skills, which must be continually developed over time.
11. Interpretive writing should address what readers would like to know, with the authority of wisdom and its accompanying humility and care.
12. The overall interpretive program must be capable of attracting support—financial, volunteer, political, administrative—whatever support is needed for the program to flourish.
13. Interpretation should instill in people the ability, and the desire, to sense the beauty in their surroundings—to provide spiritual uplift and to encourage resource preservation.
14. Interpreters can promote optimal experiences through intentional and thoughtful program and facility design.
15. Passion is the essential ingredient for powerful and effective interpretation—passion for the resource and for those people who come to be inspired by it.

Table 1.1: Beck and Cable's 15 principles of interpretation (Beck & Cable, 2011)

The mission of the National Park Service (NPS) states:

The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world (National Park Service, 2012c).

Interpreters are an important part of fulfilling the NPS mission, and they rely on the principles of interpretation as a guide. Hundreds of field interpreters have worked together to develop the “Interpretive Development Program” (IDP), which the NPS uses to train interpreters at a national standard. National Parks allow visitors to have experiences they may not get anywhere else, such as seeing a bear in its natural habitat, or walking on the same soil as a soldier fighting in the Battle of Gettysburg. Interpreters help visitors to make the most of these experiences, and connect with them on a personal level.

Brown v. Board of Education National Historic Site: Mission and Vision

“Effective interpretation is successful in creating opportunities for people to form their own intellectual and emotional connections to the meanings and significance associated with a place” (Beck & Cable, 2010). As is true in parks around the country, interpreters contribute significantly to fulfilling the mission of Brown v. Board of Education National Historic Site (NHS). The Brown v. Board of Education NHS Mission Statement reads as follows:

...interprets, for the benefit and inspiration of present and future generations, the people, places, and events that contributed to the landmark United States Supreme Court decision that outlawed segregation in public education. Furthermore, the site interprets the integral role of the Brown case in the Civil Rights Movement, preserves the former Monroe School and cultural landscape, and assists in the interpretation of related local, national, and international resources that further the understanding of the Civil Rights Movement (National Park Service, 2012a).

Two areas of the Vision of Brown v. Board of Education NHS that are relevant in this study are:

1. Present an accurate and faithful interpretation of the story of the *Brown* case and its role in the Civil Rights Movement and contribute to the continuing dialogue on these issues.
2. Provide the opportunity for people to make emotional and intellectual connections with the Brown story and the Civil Rights Movement through site visitation and outreach programs (National Park Service, 2012b).

Objectives

The purpose of this study was to evaluate the effectiveness of the interpretive exhibits at Brown v Board of Education National Historic Site. This report presents the results of this research done at Brown v. Board of Education National Historic Site on the effectiveness of the interpretive exhibits in the site and makes recommendations based upon those results.

Chapter 2 – Literature Review

What Makes an Effective Exhibit?

When many people think of interpretation, they think of a campfire program or nature hike led by a park ranger. However, interpretation takes many forms: docents at a museum, living history programs, and even signs and exhibits. Even within the category of interpretive exhibits many forms can be taken, such as paintings, photographs, or signs interpreting an outdoor scene. They can include displays, models, or real objects, and can be found in many museums or visitor centers (Knudson, Cable, & Beck, 2003). As is true for any form of interpretation, interpretive exhibits can be extremely successful in reaching visitors or completely ineffective. Table 2.1 summarizes some key aspects to consider in order to make an effective exhibit.

Remember Your A, B, C's:

Attractive: Use colors and objects that are visually pleasing. They will call attention to themselves.

Brief: Labels with over 50 words will likely not be read. Use only enough text to develop the theme. On average, visitors lose interest after about three minutes of watching a video/slide projection program or seven minutes of watching a sit-down AV program in a small theater.

Clear: It takes only a second or two to recognize and understand a clear theme of an exhibit.

Make the font big enough to read: Labels using a font smaller than 30-point type will likely not be read.

Provide the visitor with an experience: Visitors want to be excited about their visit and they want to exercise their minds and imaginations. Give them something to talk about on their way home.

Affect emotions, attitudes, and behavior: Reach for Tilden's fourth principle: provocation. Use your exhibits to provoke an emotional response (like tears or joy) or a change in attitude (such as appreciation for the farmers that grow our food) or behavior (like recycling or donating to a good cause).

Add to the visitor's knowledge and interest: Keeping text brief does not usually allow for enough time to include a lot of information. Instead, focus on a few well-rounded ideas that help visitors connect with the resource being interpreted. This connection will add interest and, in turn, may lead to provocation. As Tilden (1957) said: "Through interpretation, understanding; through understanding, appreciation; through appreciation, protection."

Table 2.1: Keys to effective exhibits (adapted from Ham (1992) and Knudson et al. (2003))

There are advantages and disadvantages of using exhibits as an interpretive medium. Even when the exhibit is an excellent exhibit designed with all of the best practices, there are inherent limitations or challenges. Advantages of exhibits include: visitors can select what parts of an exhibit to study; visitors can spend as much or as little time as they want looking at exhibits (videos have a more rigid schedule); senses can be incorporated to explore authentic specimens; exhibits can be displayed in indoor, multipurpose settings, or outdoors in natural settings; and exhibits can help tie different elements of a subject together. Possibly the biggest disadvantage of exhibits is that people do not tend to read exhibit text, so the text must be very short. This limits the amount of detail that can be provided in exhibits (Knudson, et al 2003). This means that if the message or story is complex, other media should be used to interpret to audiences. Other disadvantages include: developing effective exhibits can take considerable time, funds, and specialized talent; revisions may be put off due to the time and expense required, decreasing their

effectiveness; outdoor exhibits may invite vandalism and will have weathering; and the need for multilingual presentation requires additional resources (Food and Agriculture Organization of the United Nations, 1976). Roger Contor said, in *Interpretive Views*, “If there is a need to protect the resources of our parks, then there is a *need for interpretation* (Ham et al., 1986).”

Tangible and Intangible Content

Cable and Beck’s second principle of interpretation states: “The purpose of interpretation goes beyond providing information to reveal deeper meaning and truth (Beck & Cable, 2011).” In order for interpretation to be effective, there must be information to interpret. However, interpretation goes deeper than simply providing information. Interpretation aims to “reveal deeper meaning and truth.” It helps the audience connect with the resources being interpreted. Beck and Cable explain that this revelation can be accomplished by connecting tangible and intangible elements of the resource. If something is tangible, it is concrete and can be seen or touched. For example, grass, rocks, and animals are all tangible. Something intangible cannot be perceived by the senses. “These are broad meanings that are related to the place such as ideas, processes, systems and values (Beck & Cable, 2002).” Almost all people can relate, in their own way, to a group of intangibles called “universal concepts.” Examples of universal concepts include love, beauty, and freedom. Universal concepts and other intangibles help people find deeper meaning in tangible objects. For example, calling a house (a tangible) a home (an intangible) gives it a deeper meaning.

Designing for Differences

According to Howard Gardner, people are born with multiple intelligences, meaning we do not all learn best by one particular method (Public Broadcasting Service, 2013). In order to reach the maximum number of visitors, interpretive sites use exhibits that reach out to many different “intelligences” (Table 2.2).

Verbal-Linguistic Intelligence (“word smart” or “book smart”)

This intelligence involves the knowing which comes through language; through reading, writing, and speaking. If this is a strong intelligence for you, you have highly developed skills for reading, speaking, and writing and you tend to think in words.

Mathematical-Logical Intelligence (“math smart” or “logic smart”)

This intelligence uses numbers, math, and logic to find and understand the various patterns that occur in our lives: thought patterns, number patterns, visual patterns, color patterns, and so on. If you happen to be a logical-mathematically inclined person you tend to think more conceptually and abstractly and are often able to see patterns and relationships that others miss.

Visual-Spatial Intelligence (“art smart” or “picture smart”)

This intelligence represents the knowing that occurs through the shapes, images, patterns, designs, and textures we see with our external eyes, but also includes all of the images we are able to conjure inside our heads. If you are strong in this intelligence you tend to think in images and pictures.

Intrapersonal Intelligence (“self smart” or “introspection smart”)

It involves our uniquely human propensity to want to know the meaning, purpose, and significance of things. It involves our awareness of the inner world of the self, emotions, values beliefs, and our various quests for genuine spirituality. If this intelligence is one of your strong points you may like to work alone and sometimes you may shy away from others. You are probably self-reflective and self-aware and thus you tend to be in tune with your inner feelings, values, beliefs, and thinking processes.

Bodily-Kinesthetic Intelligence (“body smart” or “movement smart”)

This way of knowing happens through physical movement and through the knowing of our physical body. If you have strength in this intelligence area you tend to have a keen sense of body awareness. You like physical movement, dancing, making and inventing things with your hands, and role-playing.

Interpersonal Intelligence (“people smart” or “group smart”)

This is the person-to-person way of knowing. It is the knowing that happens when we work with and relate to other people, often as part of a team. If this person-to-person way of knowing is more developed in you, you learn through personal interactions.

Naturalist Intelligence (“nature smart” or “environment smart”)

The naturalist intelligence involves the full range of knowing that occurs in and through our encounters with the natural world including our recognition, appreciation, and understanding of the natural environment. If the naturalist intelligence is one of your strengths you have a profound love for the outdoors, animals, plants, and almost any natural object.

Musical-Rhythmic Intelligence (“music smart” or “sound smart”)

This is the knowing that happens through sound and vibration. If you are strong in this intelligence area you likely have a love of music and rhythmic patterns.

Table 2.2: Howard Gardner’s Multiple Intelligences (adapted from A+ Schools Program)

Therefore, it is important to have different types of exhibits with different levels of hands-on interaction, reading, listening, and other communicative approaches.

Knudson et al. describe three different types of exhibit viewers: skaters, strollers, and studiers. Skaters (aka streakers, speeders, and scanners) quickly pass through the exhibits, sometimes reading headlines or catching major themes. “Skaters scan, then skedaddle.” Strollers see most of the exhibits but only get the key ideas and a few interesting facts. “Strollers skim, then slip out.” Studiers take the time to read the text and examine the objects. “Studiers stay” (Knudson et al., 2003).

According to interpretive consultant John Veverka, visitors remember 10% of what they hear, 30% of what they read, 50% of what they see and 90% of what they do (Veverka, 2013). However, varying types of exhibits is also important because visitors can get “burned out” by encountering the same type of exhibit over and over again, especially exhibits that requires visitors to exert a lot of energy (Veverka, 2013). Veverka (2013) and Gross and Zimmerman (2002) have both categorized exhibits based upon how the visitor interacts with it (Tables 2.3 and 2.4). These typologies then aid in helping planners present a diversity of exhibit types. For a given exhibit space, Veverka generally develops: 20% type 1 exhibits, 50% Type 2 exhibits, and 30% Type 3 exhibits (Table 2.3).

<p>Type 1: Both the exhibit and visitor move, such as an exhibit with a computer activity or holding a live animal (called Active-Motion exhibits by Gross and Zimmerman),</p> <p>Type 2a: The visitor moves but exhibit is inert, such as touching animal pelts [called Active-Inert by Gross and Zimmerman] T</p> <p>Type 2b: The visitor just observes but the exhibit moves, such as watching a live animal at a zoo or a working model train (called Passive-Motion by Gross and Zimmerman),</p> <p>Type 3: Both the visitor and the exhibit are still, such as reading panels or looking at collections behind glass (called Passive-Inert by Gross and Zimmerman).</p>

Table 2.3: John Veverka’s exhibit types based on visitor-exhibit interactions (Veverka, 2013)

		Exhibit Mode	
		<u>Motion</u>	<u>Inert</u>
Viewer	<u>Active</u>	Active-Motion (Type 1)	Active-Inert (Type 2a)
	<u>Passive</u>	Passive-Motion (Type 2b)	Passive-Inert (Type 3)

Table 2.4: Exhibit classification matrix based on visitor-exhibit interactions (adapted from Gross & Zimmerman (2002))

“Research has shown that people are more interested in dynamic, animated, changing stimuli than in inert flatwork” (Veverka, 2013). According to Gross and Zimmerman (Gross & Zimmerman, 2002), effective exhibits appeal to all the senses. Music causes an emotional response; smells take people back to memories of their childhood. “How exhibits sound, feel, and smell is often more important than how they look and read.”

Evaluating Interpretive Exhibits

According to Maureen McDonough, in *Interpretive Views*, “All evaluation problems require two areas of decision; first, consideration of *what* it is that we are trying to evaluate; and second, attention to *how* we can evaluate whatever it is” (Ham et al., 1986). This study evaluates the effectiveness of the interpretive exhibits at Brown v. Board of Education NHS (*what*) through surveys conducted on visitors leaving the site (*how*).

Not all visitors learn the same way or absorb the same amount. “Interpreters should not expect everyone in the audience to show the same level of learning or feel interpretation has failed because some visitors pick up only the more general or surface points of information” (Loomis, 1996).

“Good displays and exhibits may orient the visitor before a forest or factory or park tour or enrich a visit as a post-tour extension. In museums, where the exhibits comprise the destination, their composition and quality make or break the whole experience” (Knudson et al., 2003). Although it is always important to put proper planning and development into making an interpretive exhibit, it is essential when exhibits are the focus point of the site. The fact that Brown v. Board of Education NHS is housed in the former Monroe Elementary School, a black

school in the middle of the fight against segregation in schools, is fascinating to many people in itself. However, that fact alone will not sustain attendance numbers. The interpretive exhibits are what bring the case and the school's story to life and help visitors feel happy, sad, angry, inspired, proud, or any number of other emotions that make the story of *Brown v. Board of Education*, and of the people touched by the case, come alive. Roger Contor, in "Interpretive Views," said:

Good interpretation has the power to change people's outlook. In a 1984 national poll of 2,000 adults, 84 percent gave a favorable rating to the National Park Service – higher than to any other federal agency. That kind of public support doesn't just happen. Providing good service to the public through our interpretive programs is responsible for much of that support. It does not go unnoticed. (Ham et al., 1986)

Chapter 3 – Methods

The program and sampling scheme used to collect data was developed by The Missouri Department of Conservation (MDC). Researchers at the MDC developed an Access database to collect information from visitors of parks and nature centers. Their scheme involved stopping vehicles as they left a site during a pre-determined data collection time. An employee or volunteer of the site would approach the vehicle and ask the driver survey questions. The answers were entered into a handheld Trimble© device. Then the data were analyzed directly from the Trimble device. The key advantage to this approach is that data do not have to be recorded on field sheets and then transcribed into a computer-based statistical program. This eliminates the possibility of data entry errors. Moreover, the MDC program does not allow the entry of data outside the range of possible answers, so this too eliminates a source of error seen in traditional survey research. Prior to our study, this database had only been used in an outdoor setting with the Trimble device. MDC researchers adapted this database to be used indoors on a laptop to record the information collected from the surveys at Brown v. Board of Education NHS.

MDC researchers developed a random schedule for data collection using the database. In the Project Design Tab, under 1. General Project, they entered the start and stop dates of the study. Under 2. Enter Project Design, they entered the start and stop times (operational hours of the site) and any “special days” (such as Martin Luther King Jr. Day) and whether or not they will be included in the survey (for example, if the site was closed on a holiday, that day would not be “included” in the survey). Also in Enter Project Design, they entered that we wanted to compare weekends and weekdays, we did not want to compare mornings and afternoons, the percentage margin of error (of annual use estimate at 90% CI [11.63%]) the number of collection hours desired, and the duration of each collection period. After entering the necessary information, they clicked “create schedule.” The program then made a list of all possible dates and times based on the start and stop dates and times entered, then randomly selected the appropriate number of samples for each month from the list of available dates. Eight hours of collection were randomly selected each month; four hours on weekdays and four on weekends. Each collection time lasted for one hour.

Visitors were given an opportunity to explore the exhibits at their own pace and for as long as they wished. After they went through the exhibits, when the visitors were on their way out of the exhibit area, they were approached and invited to participate in the survey. Specifically, they were told “I’m a Master’s student at Kansas State University and I’m doing research on the effectiveness of the interpretive exhibits of the site. If you have a couple of minutes would you be willing to answer some survey questions?” Visitors had a response rate of 94%, with 48 of 51 parties approached agreeing to participate in the survey.

Chapter 4 - Results

A total of 51 parties were approached during the study. Surveys were conducted on 48 parties for a total of 136 unique visitors and a response rate of 94%. Visits peaked in October and March. February, Black History Month, also had high visitation. When broken down by race, 78.1% of visitors surveyed were White, 13.0% were Hispanic, 8.5% were Black, and 0.5% were Other. Of the visitors surveyed, 19.8% were between the ages of 35 and 44, 16.5% were 45-64, 16.4% were 0-11, 15.1% were 25-34, 12.0% were 18-24, 9.7% were 65+, 7.0% were 12-15, and 3.4% were 16-17. The average party size was 2.86 people. The average time spent in the exhibits was 58.23 minutes. The average distance people travelled to the site was 398.51 miles (including outliers).

Overall, when asked what exhibit visitors found most impactful (Table 4.1), the most popular answer was “Race and the American Creed” at 34.3% of those who responded. Expressions and Reflections was the next most impactful at 21.6%. The Hall of Courage was third at 17.4%, followed by Five Lawsuits at 13.3%, Timeline at 7.7%, They Gave Us Good Dreams at 2.8%, no exhibit at 2.1%, and Pass it On at 0.9%. When broken down by race (Table 4.2), white visitors found Race and the American Creed the most impactful at 34.1% of white visitors. Expressions and Reflections was the second most impactful at 22.4% of white visitors. Black visitors found Expressions and Reflections the most impactful exhibit at 44.4% of black visitors. The Hall of Courage was the second most impactful at 27.8% of black visitors. Hispanic visitors also found Expressions and Reflections most impactful, at 54.5%. Race and the American Creed was the second most impactful exhibit for Hispanic visitors, at 36.4%. Finally, 100% of visitors categorized as Other found Five Lawsuits the most impactful exhibit. When broken down by age (Table 4.3), 47.1% of visitors ages 0-11 years found Race and the American Creed the most impactful exhibit. Visitors ages 12-15 years found the Hall of Courage the most impactful, at 50%. Visitors ages 16-17 years found Expressions and Reflections the most impactful, at 50%. Visitors 18-24 and 25-34 years old also found Expressions and Reflections the most impactful, at 44.4% and 39.1 %, respectively.

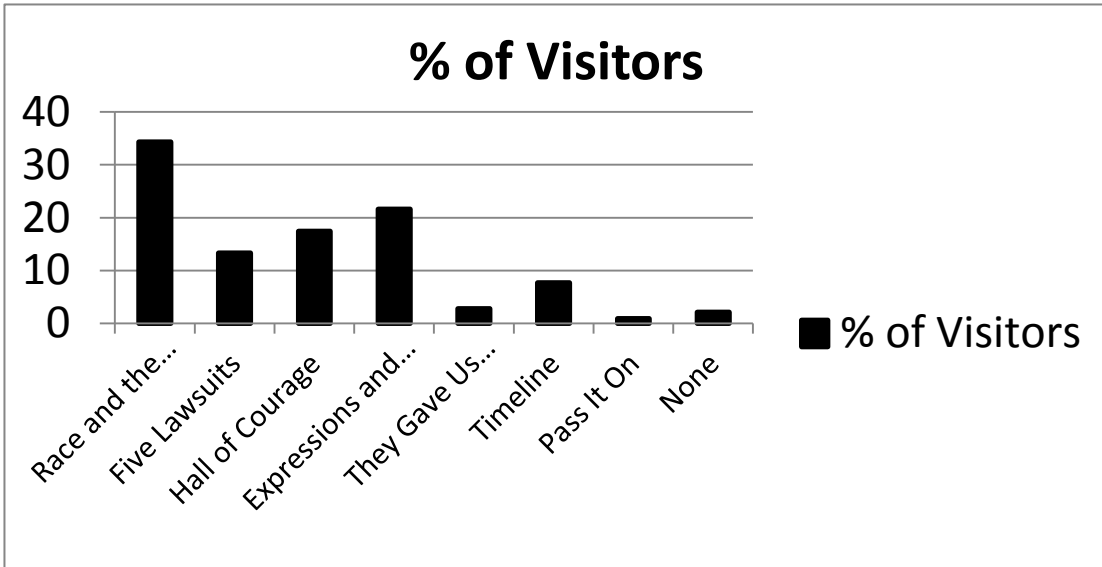


Table 4.1: Most impactful exhibit overall

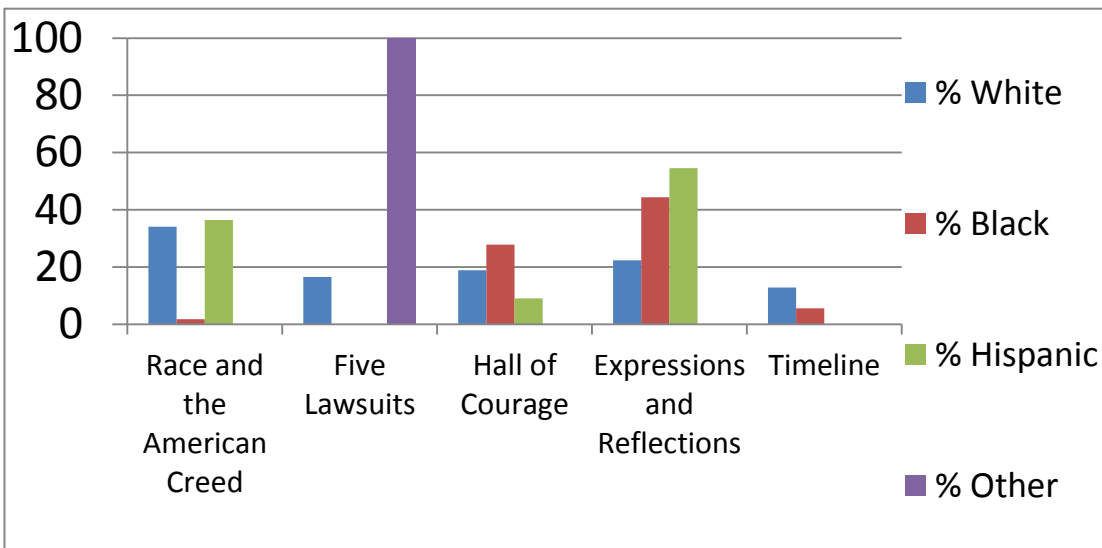


Table 4.2: Most impactful exhibit by race

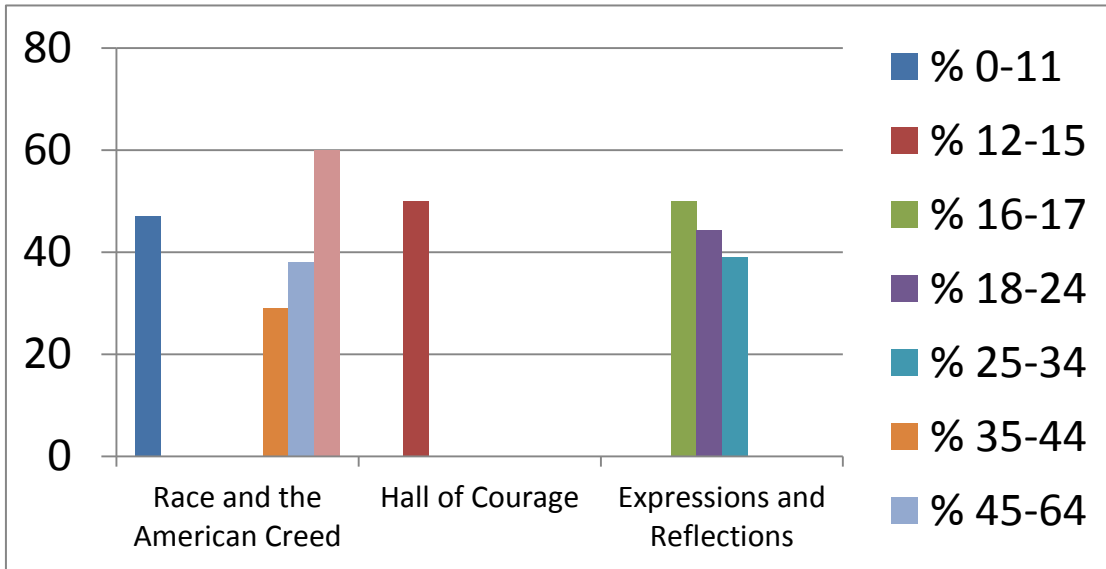


Table 4.3: Most impactful exhibit by age

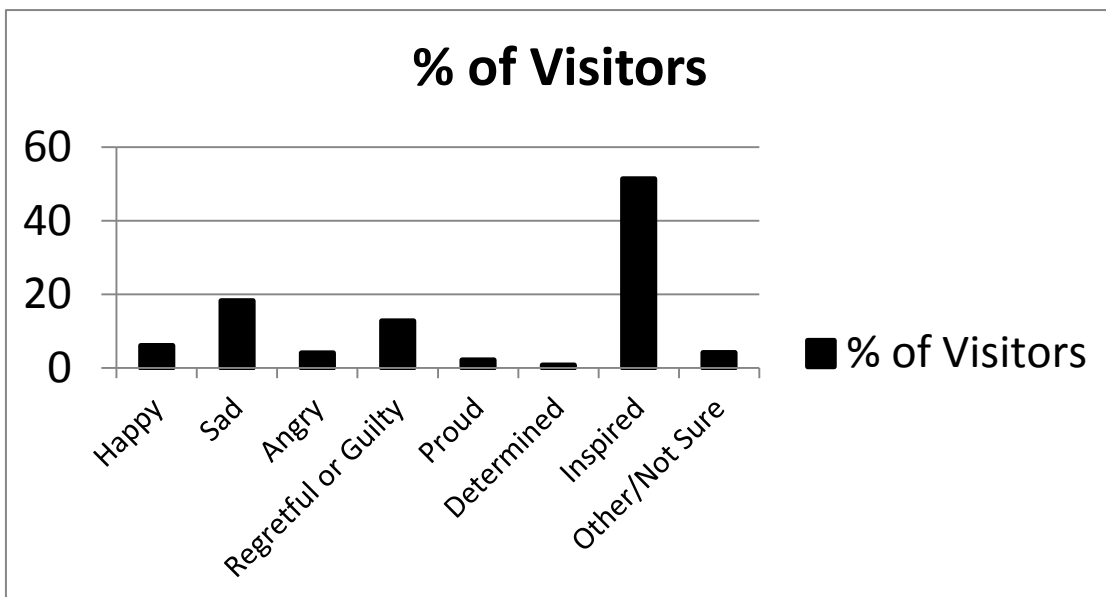


Table 4.4: How visitors felt after leaving exhibits

Race and the American Creed was the most impactful exhibit to visitors ages 35-55, 45-64, and 65+, at 29.2%, 38.1%, and 60%, respectively. Females found Expressions and Reflections the most impactful exhibit, at 22.2%, with Race and the American Creed a close second, at 21.2%. Males were most impacted by Pass It On, at 48%. Expressions and Reflections was second, at 31.3%, with Race and the American Creed a close third, at 29.2%.

On a Likert scale, with one being poor and five being excellent, 77.2% of visitors gave the site a “5” rating. A “4” rating was given by 20.0%, 2.9% gave the site a “3,” and no visitors responded with “2” or “1.”

When asked if they would recommend the site to others, 89.1% of visitors said “For Sure,” 8.9% said “Probably,” and 2.0% said “Never.”

When asked how they heard about the site, 27.1% of visitors said by “word of mouth,” 21.9% said “NPS website,” 19.8% said “road signage,” 19.2% said “school,” 7.5% had no response, 5.0% said “state capitol info booth,” 2.5% said “tour book,” 2.5% also said “magazine,” and 2.1% said “other website.”

When given the option to choose from a list to add one educational activity to the site, 17.8% chose “Informational brochure,” 16.2% chose “Podcast on the Internet,” 14.4% chose “On-site ranger led program,” 10.8% chose “Cell phone tour,” 10.1% chose “Special event,” 5.3% chose “Visit new temporary exhibit,” and 2.0% chose “Nothing.”

When visitors were asked how visiting the site made them feel, if they could only choose one emotion (Table 4.4), 51.4% said “Inspired,” 18.3% said “Sad,” 12.8% said “Regretful or guilty,” 6.1% said “Happy,” 4.2% said “Other or not sure,” 4.1% said “Angry,” 2.2% said “Proud,” and 0.8% said “Determined.”

When performing a chi-square test on the exhibits overall, the null hypothesis states: All of the exhibits at Brown v. Board of Education NHS are equally impactful. $X^2=62$; Degrees of Freedom=1. Therefore, there is a 0% chance that the null hypothesis is true. When doing a chi-square test on the most impactful exhibit by race, the null hypothesis states: Race and the most impactful exhibit are independent of one another. $X^2=9$; Degrees of Freedom=3. Therefore, there is a 2.8% chance that the null hypothesis is true.

Chapter 5 – Discussion and Conclusions

At *Brown v. Board of Education NHS*, exhibits include videos, music, reading material, and interactives, so people of many different learning styles, including Verbal-Linguistic, Mathematical-Logical, Visual-Spatial, Bodily-Kinesthetic, and Musical-Rhythmic (Table 2.2) can enjoy and learn from their time there. When asked if they would recommend the site to others, 89.1% of visitors said “For Sure,” 8.9% said “Probably,” and 2.0% said “Never.” On a Likert scale, with one being poor and five being excellent, 77.2% of visitors gave the site a “5” rating. A “4” rating was given by 20.0%, 2.9% gave the site a “3,” and no visitors responded with “2” or “1.” This shows that visitors of the site enjoy the variety of exhibits and that visitors are impacted by the site as a whole.

The film “Race and the American Creed” (Figure 1.2) was found the most impactful exhibit (Table 4.1) by 34.3% of those surveyed. It reaches people with Verbal-Linguistic and Visual-Spatial “intelligences” (Table 2.2), as well as the Interpersonal intelligence, as it helps the visitor to see a different point of view. It is interesting that “Race and the American Creed” was the most impactful exhibit to visitors surveyed, because it is a Type 2b exhibit (Table 2.4) consisting of a video lasting approximately 30 minutes. This confirms the findings of Roberson (2009) that visitors “can and will engage for a significant length of time if the exhibits are wisely planned.”

The second most impactful exhibit (Table 4.1) was “Expressions and Reflections,” the temporary exhibit space in the Kindergarten room (Figure 1.14), at 21.6%. “Expressions and Reflections” has a mixture of Type 3 exhibits, where visitors read information on the inert exhibits, and Type 1 exhibits, where visitors can interact with a computer screen to express their thoughts and feelings about civil rights and the site as a whole. It reaches visitors with Verbal-Linguistic, Visual-Spatial, and Bodily-Kinesthetic “intelligences” (Table 2.2). It also reaches the Intrapersonal intelligence, as it gives visitors the chance for self-reflection. Since this exhibit has a mixture of Type 3 and Type 1 exhibits, visitors are able to interact with exhibits without getting “burned out” (Veverka, 2013) by too much activity.

Visitors found the “Hall of Courage” (Figure 1.4) the third most impactful exhibit (Table 4.1), at 17.4%. It is another Type 2b exhibit (Table 2.4). At this exhibit, visitors walk down a

short hallway with screens on both walls showing scenes, sometimes graphic, of the fight for civil rights. The “Hall of Courage” reaches the Visual-Spatial intelligence (Table 2.2). I think it also really reaches the Interpersonal intelligence emotionally. Upon my first visit to Brown v. Board of Education NHS, after walking down the “Hall of Courage,” I expected visitors to find it the most impactful overall, due to the immersion into the Civil Rights Movement by the surrounding screens. I was surprised to find that it turned out to be the third most impactful exhibit to visitors surveyed. So, why was it found the third most impactful? One reason could be that “Race and the American Creed” and “Expressions and Reflections” are simply well developed exhibits, so they are more impactful to visitors. Another reason may be that the “Hall of Courage” is over stimulating. There are four separate screens playing at the same time all around the visitor, sometimes showing graphic scenes, such as lynchings. There may be so much overstimulation that visitors cannot quite connect with it like they can with “Race and the American Creed.”

“Pass It On” is a Type 2b exhibit (Table 2.4) that consists of a short film with people talking about racism and civil rights. It was the least impactful exhibit, at 0.9% of visitors surveyed (Table 4.1). It reaches the Visual-Spatial “intelligence” (Table 2.2). “Pass It On” is not always as simple and fluid as “Race and the American Creed,” so may be more difficult for visitors to really get into. It shows us that simply having a certain type of exhibit is not always enough to impact visitors, since “Race and the American Creed,” another Type 2b exhibit, was found the most impactful.

The Timeline (Figure 1.8), an entirely Type 3 (inert) exhibit (Table 2.4), was only chosen by 7.7% of visitors surveyed as the most impactful exhibit (Table 4.1). It reaches the Verbal-Linguistic as well as the Mathematical-Logical intelligence (Table 2.2). It is good information that is easy to follow, so some visitors did find it impactful. However, it is to be expected that the Timeline would not rank high with visitors overall, since many of the other exhibits that have inert displays also incorporate interactive aspects.

When doing a chi-square (X^2) test on the exhibits overall, the null hypothesis states: All of the exhibits at Brown v. Board of Education NHS are equally impactful. The chi-square test shows us that there is a 0% chance that the null hypothesis is true. This tells us that visitors will be impacted differently by each of the exhibits. When doing a chi-square test on the most impactful exhibit by race (comparing black and white visitors), the null hypothesis states: Race

and the most impactful exhibit are independent of one another. The chi-square test shows us that there is a 2.8% chance that the null hypothesis is true. This tells us that there is a correlation between race and the most impactful exhibit.

According to Roberson (2009): “Exhibits should provide opportunities for multiple engagement through a multi-sensory environment (Roberson, 2009).” In order to reach as many visitors as possible, interpretive sites should offer the chance for “multiple engagement” by providing exhibits that people with many different “intelligences” can connect with. At Brown v. Board of Education NHS, this “multi-sensory environment” is being provided, and it is making a difference to the visitors of the NHS. Furthermore, the exhibits at Brown v. Board of Education NHS are effective in fulfilling the areas of the Vision of the site that directly relate to interpretive exhibits. Two parts of the Vision of Brown v. Board of Education NHS that are important in this study are:

1. Present an accurate and faithful interpretation of the story of the *Brown* case and its role in the Civil Rights Movement and contribute to the continuing dialogue on these issues.
2. Provide the opportunity for people to make emotional and intellectual connections with the Brown story and the Civil Rights Movement through site visitation and outreach programs (National Park Service, 2012b).

Based on this study, we know these two areas of the Vision are being fulfilled because: 1. Visitors who participated in the survey were impacted by the exhibits throughout the site, and the temporary exhibit space in the Kindergarten room allows for continued dialogue on civil rights issues; and 2. Over 50% of visitors surveyed said that they felt “inspired” (most popular answer) after exploring the interpretive exhibits at the site, over 18% said they felt “sad” (second most popular answer), and over 12% felt “regretful or guilty” (third most popular answer), showing that visitors are making an emotional connection with the Brown story and the Civil Rights Movement.

Future studies include analysis of pre- and post-tests conducted on elementary school classes visiting Brown v. Board NHS. Each student who visited the site, prior to viewing the exhibits, was given a pre-test asking questions that could be answered in the site. After viewing the exhibits, each student was asked the same questions to see what they have learned. After the

pre- and post-tests are analyzed, hopefully Brown v. Board of Education NHS will be able to use the information in developing its long-term interpretive plan. Another area for future study is to conduct surveys at the community level. According to Mitra and Lankford (1999), although you can learn a lot about how a facility is being used by its visitors by conducting a visitor survey, the fact that people visiting the site are there shows that they are already interested in the activity offered at the site. Taking surveys out into the community, to people that are not visiting the site, could better help Brown v. Board of Education NHS learn what needs to be done in order to increase visitation to the site and help reach as many people as possible.

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