Learning in the History Museum: Designing Exhibit Labels that Engage Visitors

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ABSTRACT

This qualitative study examined the ways that exhibit labels influence the process of engagement at a history museum. New labels were designed for an existing exhibit at a local museum. Volunteers were invited to visit and share their experience in a post-visit survey and interviews. The results suggest that labels can significantly influence visitor engagement, by initiating, extending, transforming, interrupting, or severing connections with display objects; that prior museum experience is a determining factor in museum visitors’ response to labels; and that to understand engagement in the museum, it is necessary to interact with visitors rather than simply observing them.
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Chapter One: Introduction

Museums, particularly small local museums, face an ongoing struggle for survival. Science centers may attract new audiences by cultivating an atmosphere of wonder and exploration where visitors are invited to manipulate exhibits while learning. History museums, however, have a responsibility to preserve their collections. This additional role, as guardians of historical artifacts, rules out certain methods of engaging visitors. If objects are handled, they could be lost to future generations. As a result these institutions can seem dull and dated, with much to look at but little to do.

Museums may use velvet ropes or glass vitrines to prevent visitors from damaging the fragile artifacts. These physical barriers, when coupled with the cultural barriers against interacting with display objects, can create the unintended impression that history itself is mummified in the museum – the past is dead and settled, and remote from our lives today. The tone a museum adopts in its communications can reinforce this message, particularly the traditional tone of disembodied authority which Peter Walsh (1997) terms the “Unassailable Voice.”

Even before visitors enter the doors, “the public understanding of the museum is as a purveyor of truth and a venerated ‘cultural authority’” (Harrison, 2005, p. 39). When museum text is designed to cement that power, the underlying message is that only professionals have anything of value to say about the past. The role of the visitor is to learn the truth about these objects, a truth that is established and unchanging. Even if this were an accurate characterization of history, which of course it is not, it restricts the opportunity for discovery in the museum. If visitors have nothing to do except passively
absorb information, particularly information that seems remote from their own lives, they are unlikely to return.

Instead of treating visitors as novices to be filled with information, Kathleen MacLean (2011) argues that museum professionals “would do well to consider them ‘scholars’ in the best sense of the word—people who engage in study and learning for the love of it” (p. 71). Inspired by this suggestion, my research further postulates that, by addressing museum visitors as equals who are motivated to learn, and providing tools to interpret rather than presenting a single definitive interpretation, labels might position visitors as participants in history rather than simply consumers. Or, in other words, labels could facilitate visitor engagement.

Lianne McTavish notes that a “significant proportion of museum scholarship focuses on national, urban museums and controversial exhibitions, overlooking the important differences of smaller, less central institutions” (2013, p. 5). This is particularly true of label research, which also focuses disproportionately on art and science museums. It is difficult to know whether the results of such research are generalizable to large history museums, let alone local ones. However, these smaller institutions with limited budgets have the most to gain from label innovation, as it is a low-cost intervention that can be implemented with existing collections. To the best of my knowledge, no label research has been conducted in the province of New Brunswick.

For this study, my specific research question was, in what ways might exhibit labels influence the process of engagement in a history museum? To this end, I designed new labels for an existing exhibit at a New Brunswick history museum. Observation,
post-visit surveys, and follow-up interviews were used to gain an understanding of how these labels affected the visitor experience.

**Researcher Identity**

I have taught in schools before, but I am not a teacher. My first experience at the front of the classroom was in Thailand, where I taught English to secondary students for two years. I came back to Canada to pursue an education degree, but did not end up returning to the classroom after my internship was completed. In my subsequent Master’s studies in instructional design, I have gravitated towards informal education.

This topic took shape after I developed an interest in photographic captions. I was initially fascinated by the use and misuse of captions to push political agendas, as described by Errol Morris (2008):

[D]octored photographs are the least of our worries. If you want to trick someone with a photograph, there are lots of easy ways to do it. You don’t need Photoshop. You don’t need sophisticated digital photo-manipulation. You don’t need a computer. All you need to do is change the caption.

Morris discusses how only a few words can fix the meaning of an image, and thus the beliefs of the viewer. I began thinking that text could also reframe the relationship between a person and an object, and mulling over the educational implications for museums.

Although I have volunteered in museums, I am an institutional outsider. I have never curated or designed an exhibit, or (except for the purposes of this research) created a label. Perhaps I was drawn to this topic because despite my love of museums, I often
find the labels frustratingly uninspiring. In history museums, I typically skim the labels, only reading them in full if the title or first lines grab my interest, or if I am particularly curious about an artifact. Often, I feel that the labels are trying to fill me with information rather than stimulate my interest or imagination. When I read such a label, unless the information is quite surprising, I retain next to nothing. Studying education gave me some insight and language to revisit these unsatisfying experiences, and consider how this problem might be remedied.

During the initial stages of this project, I thought in depth about what I want most out of a museum visit. I decided that 1) I want to have fun (which for me, involves solving puzzles or finding out how things work), and 2) I want to develop knowledge that I can apply elsewhere. Looking at portraits, for example, if I am going to read the label I want to learn something that will help me look at portraits in a more informed and observant manner. Or, in other words, I want to pick up some of the tricks and techniques that experts use. This approach is much in line with current movements in history education; rather than simply remembering historical dates and figures, students are expected to develop their historical thinking abilities.

I consider myself a qualitative researcher. I recognize and embrace my role as a research instrument, and an integral part of this story. As such, I have attempted throughout this thesis to clarify not only what I learned, but my learning process, including how I came to make and revise various research and analysis decisions.
Thesis Structure

Chapter Two, the literature review, is divided into three sections representing the sequence of my preliminary study. First is a summary of the state of museum label research, including best practices for label length, layout and content. The second section connects this label literature to the wider fields of history education and visitor studies, and the final section adds learning engagement literature to this mix.

Chapter Three, the methodology chapter, begins with a rationale for the overall qualitative research design. I explain my label creation process, and then describe the design of the museum event, post-visit survey, and interviews. Limitations of this research are outlined. The chapter concludes with an explanation of my data analysis strategy.

Chapter Four outlines the findings, organized by data collection method. I first describe the results of observation, then post-visit surveys, and finally interviews. This section, by far the largest given the depth of material that came out of the interviews, is presented in individual visit narratives. The chapter closes with a cross-analysis of the data.

Chapter Five reflects on the implications of this research.
Chapter Two: Literature Review

The organization of this chapter reflects the sequence in which I approached the literature, illustrating how gaps in each research tradition led to the exploration and incorporation of further fields of research. I began by trying to develop a sense of the established “best practices” in the field of label design, including recommended typography, syntax, and content. During this process, I noticed that certain types of disciplinary approaches (psychological) and locations (natural history and science centers, most notably the Exploratorium in San Francisco) were prevalent in the label literature. Only a small number of instructional designers are involved in museum label research, and history museums are sorely neglected. With no research community focusing specifically on the design of history museum labels, it was necessary to consider how the label literature could be combined with the broader literatures of history education and visitor studies.

As I began reading and writing my literature review, I found myself frequently using variations of the word “engaging” – to me, this summarized what is desirable in a museum label. I was using the term colloquially, like many of the researchers I was reading, to mean labels or exhibits that inspired curiosity and interaction. However, since the term seemed so central to this work, I began exploring the field of engagement literature. Although this literature is largely focused on education in schools, it is relevant to label and other museum research, revealing a significant weakness in these fields. Though there are various types of engagement and ways of connecting, including behavioral, affective, and intellectual, much of the label research only measures the indicators associated with one type of engagement, the most observable type, behavioral.
Label Design Best Practices

Many museum learning studies investigate the learning of a generalized population in attempt to induce universal label guidelines. Several of the key researchers in this field are psychologists, most notably Stephen Bitgood. Experimental and other quantitative methods are used, including timing and tracking (see Yalowitz & Bronnenkant, 2009 for literature review) to quantify behaviors such as stopping. Researchers have considered whether visitors pay attention to the label (e.g. Bitgood, 2000; McManus, 1989), can read and understand it (e.g. Borun & Miller, 1980; Sorsby & Horne, 1980), and can remember what they have read (e.g. Bitgood & Cleghorn, 1994). Visitors are often tested for recall or comprehension to determine how much learning has occurred (e.g. Litwak, 1996).

Cognitive psychology, with its focus on how the brain processes information, offers many insights into attention-holding and comprehensible label design. Bitgood has experimented with various cognitive principles to increase learning in museums. In a study with colleague Donald Patterson (1993), Bitgood systematically altered the labels at an Egyptian mummy exhibit while carefully measuring the results. The first alteration was based on the cognitive principle of chunking; one long (150-word) label was divided into three shorter labels. This change more than doubled the number of visitors who read the label(s), from about 12% to 28% (p. 769). Subsequent changes that positively affected readership were increasing font size, and moving labels closer to the mummy case. Significantly, Bitgood and Patterson found that time spent reading labels usually increased attention to the artifacts themselves. Labels facilitated visitor focus rather than distracting them.
In later work, Bitgood explores attention in more depth. He identifies several ways to attract visitors to interpretive labels by increasing “stimulus salience.” For example, labels are more noticeable when they are larger, well-lit, and placed in a clear line-of-sight (2002, p. 3). However, there is no guarantee or even likelihood that visitors who see a label will take the time to read it. Bitgood advocates “minimiz[ing] the perceived effort to read” (2002, p. 4). When visitors believe the “workload” is negligible, they are more likely to read, “presumably because the cost of investing time and effort is low and ‘worth a gamble’” (2013, p. 102). This can be accomplished by placing the label near the object, chunking text into smaller more digestible units, and reducing sensory overload by minimizing the total number of labels (2002, pp. 4-5).

Artistic choices that increase the visual appeal of signage, such as interesting shapes and vivid color photographs, attract visitors and can improve their memory of sign contents (Jensen, 2006). Color contrast is essential in label design, improving both legibility (Wolf & Smith, 1993) and recall (Cota & Loomis, 1997). For optimum legibility, Beverly Serrell (1996) suggests caption labels should have dark print on light backing, with 20-24 point type (p. 197). This should be visible from a distance of about 20 inches, ensuring those in wheelchairs or with imperfect vision can comfortably read. Serrell also stresses that labels should be no more than 50 words, so they can be read quickly (p. 27). In terms of syntax and semantics, there is substantial research supporting short sentences and the active voice, and cautioning against obscure words, jargon, and ambiguous pronouns (see, for example, Miglietta, Pace & Boero, 2011). Although the target reading level will vary depending on the exhibit audience, Serrell warns designers
not to write at a twelfth-grade level, since this would exclude many visitors (1996, p. 96).¹

If visitors choose to begin scanning the label, Bitgood claims cognitive-emotional arousal might provoke further interest, and keep them reading. Methods for stimulating arousal include challenging the learner, by, for example, confronting and correcting common visitor misconceptions; using an engaging and colorful writing style; and giving suggestions for things to look for or do (Bitgood, 2002, pp. 5-6). Similarly, Screven (1992) argues that visitors are involved by “[p]ersonalized writing styles, provocative headlines, leading questions, humor, and challenge” (p. 190).

Whether and in what form to include label questions is a controversial topic. Serrell believes they are too often used as gimmicks, “[d]isguising the delivery of more information in a superficially user-friendly form” (1996, p. 105). However, the use of questions is supported in much of the literature. For example, Jane Marie Litwak found that changing descriptive label titles to questions increased performance on an exit test. Litwak presumes that the questions motivated visitors to read, and this is responsible for increased learning (1996, p. 9). Exhibit designer Jane Peirson Jones argues that questions increase visitor interaction with exhibits, which is important given that “[v]isitors are expected to be active participants rather than passive receivers” (1999, p. 271).

¹ Difficulty can be gauged by readability tests such as the Gunning-Fog index, Coleman-Liau index, Flesch-Kincaid grade level, and Automated Readability Index. This thesis is written at approximately a twelfth-grade level (inappropriate for labels).
By appealing to the senses, label text can also encourage visitor interaction with display objects. Serrell suggests that labels should begin by referencing “what visitors can see, feel, do, smell, or experience from where they are standing” (1996, p. 84). Screven also advocates focusing on specific observable characteristics, such as “colors, smells, movements, functions” (1992, p. 194). John Falk and Lynn Dierking (1992) concur, claiming “exhibits and labels would be more effective if they conveyed concrete information before introducing the visitor to an abstract idea” (p. 78). Focus on the concrete directs attention to the object, while modeling what expert observers might notice. It also encourages learners to re-examine their own initial interaction with the object.

Most of the label research discussed thus far has attempted to establish statistical links between label variables and visitor outcomes. To examine the processes and contexts at work, others have pursued complementary research. These researchers, often with a background in education, have investigated the process of museum engagement and learning.²

² This includes considering learning that is unpredictable or unquantifiable. George Hein (1995) contends that museum educators should create rich learning environments with many potential learning outcomes: “The more we construct a situation that allows and encourages learning, the more likely we are to construct something that is open, ambiguous and able to be manipulated in a variety of ways by the learner; thus, the less likely we are to be able to predict precisely what has been learned. Conversely, the more we structure a situation so that it will provide very specific teaching of content, principles or skills that we have
Typically, this process research approaches engagement and learning as complex, active, and personal, which changes the traditional function of a label. As Ted Ansbacher (2002) explains, this means “labels are not there to convey what the exhibit developer hopes a visitor will learn from the exhibit. They are written from quite a different point of view, intended to help visitors engage with and derive meaning from the exhibit” (p. 2). One research method that has become increasingly prevalent is observing the interactions visitors have in their groups. This includes listening in on visitor conversations. Most notably in this field, Gaea Leinhardt and Karen Knutson (2004) conducted an extensive study across seven different genres of museums. For them, visitor talk is both a process and an outcome of learning. Their conclusions support a daring curatorial approach: “in cases where controversy of interpretation or controversy of content was put forward by the museum, we repeatedly saw visitor engagement and discussion” (p. 160). Well-designed labels can be “conversation catalysts” (Perry, 2012, p. 31).

Hohenstein and Tran (2007), also using a social learning approach, describe how label questions influenced visitor discussions at three different exhibits. They propose that “at an object-based museum exhibit, the majority of learning about the phenomenon predetermined, the less likely we are to fulfil the conditions under which learning can take place most fruitfully” (p. 191). From this perspective, tests of recall cannot accurately measure learning, since visitors may learn beyond the narrow confines of the test.

3 Since a number of groups might visit an exhibition at any one time, distinguishing individual voices amidst the noise is an issue. Some researchers have attached microphones to visitors (for example, Allen, 2002), though recording might alter visitor talk.
of interest occurs through conversation, at least when multiple people are present” (p. 1560). They recommend that designers adapt their questions to “take into account the nature of the objects, and thus the ways in which visitors are likely to engage with the object” (p. 1576). Where an object is materially complex, for example, this might involve focusing attention on its intriguing physical aspects; other objects might benefit from a more conceptual approach.

From this label literature, I developed an understanding of which design techniques are demonstrated to increase attention, retention, and visitor conversation. I became concerned, though, by the prevalence of science centers and natural history museums in this literature. Perhaps the history museum setting required different techniques? Moreover, I questioned whether studying people’s behavior—what they looked at, how long they spent at an exhibit, or even what they talked about—gave a complete picture of the learning that was actually happening in museums. I decided to expand my focus at this point to the wider and often more philosophical fields of history education and visitor studies.

**Learning and Engagement in the History Museum**

History museums have been neglected in label research and museum research in general. However, these institutions have particular challenges and opportunities when it comes to visitor engagement. As noted in the Introduction, the primary challenge lies in the fragile and rare nature of artifacts. Due to the irreplaceability of most collections, many of the techniques of interactive science museums cannot be used. However, there
are particularly exciting possibilities for other forms of engagement in the history museum.

Though I have had a great deal of fun in science museums, my most powerful and memorable experiences have taken place in history museums: staring into the sunken face of the “Yde Girl” at the Museum of Civilization in Ottawa, while imagining her life and death; delightedly watching kids debate whether the Coleman frog is real at the Fredericton Region Museum; standing frozen in horror while listening to a recitation of the names of murdered children at Yad Vashem in Jerusalem. History is comprised of stories about who we have been, but as Taylor (2012) suggests, it also helps us to imagine who we might be:

Through the sensual exploration of the past that they offer, museums become important places for people to orient themselves vis-à-vis people and places of other times. With the narrative they are presented, people are not just passively taught at museums. Rather they use this information to make decisions about who they might call their ancestors, what people they choose to include in their community, and which place they call home. (p. 17)
The search for identity is a fundamentally emotionally engaging pursuit.

Though I have found no basis in the research for this claim, I suspect history exhibit labels can have a dramatic emotional influence. Since artifacts have no inherent or absolute meaning, they only have meaning when they are placed within a narrative. Museum narratives can encourage emotional connection to, or distance from, these objects. A chunk of concrete may seem historically insignificant, but this changes if we are told it came from the Berlin Wall. Such information could inspire personal or shared
connotations; some, for example, might recall listening to John F. Kennedy’s *Ich bin ein Berliner* speech on the radio, or watching it on television. However, imagine having no existing associations with the wall, and reading a label similar to this one: “The Berlin Wall began construction in 1961, and was torn down in 1989. While it stood, it divided West Berlin from the communist East Berlin and East Germany. This portion of the wall weighs almost 5 pounds.” Now, contrast this with a label that tells the story, in her own words, of the woman who chipped the piece off the crumbling wall, and what that act meant to her.

Labels could also engage visitors by focusing on history as a process. Although the study and interpretation of the past is traditionally the province of historians, everyone can participate. People do and redo history; it is neither unanimous nor resolved. In the article “Situated Cognition and the Culture of Learning” (1989), Brown, Collins, and Duguid describe learning as “a process of enculturation” (p. 33). History as a discipline has a culture, a particular way of seeing the world. If labels focus solely on the conclusions of historians, and ignore their methods, visitors will not learn history. They will learn historical trivia. For Brown et al, enculturation requires the awareness and use of conceptual tools associated with the discipline.⁴

⁴ Museum researchers Leinhardt and Knutson (2004) discuss this perspective on learning: “In the sociocultural way of looking at things, learning means less that an individual ‘owns’ certain knowledge—in the sense of having a valuable possession—and more that an individual can participate in a particular group or world in an active way” (p. 5).
Bain and Ellenbogen (2002) argue that it is “the museum’s duty to help visitors understand the language and strategies of object interpretation” (p. 159). Designers should aim to “make historical thinking visible to learners, and enable learners to employ the tools in the historian’s toolkit” (p. 159). In terms of label design, this entails attention to historians as people with a specialized system of constructing knowledge. Historical deductions could be justified, modeling the ways in which historians might approach artifacts. As an example: “This photograph was probably taken in the late 1880s. If you want to make a good guess about the date of a portrait, one thing to look for is clothing. This woman is wearing a large bustle, which was only fashionable for a short period. In earlier and later photos, bustles are much less prominent.” The names of particular historians could be mentioned on labels, with reference to how they work: “When Margaret MacMillan compared the public report with private diary records, she noticed several inconsistencies.”

By modeling historical techniques, labels could encourage visitors to think critically about display objects, and form their own understandings. This initial guidance is necessary, since most visitors to a history museum do not have the training to situate objects in a meaningful historical context. Without some guidance, the visit could end up being more frustrating than illuminating. It is possible to mediate learning without dictating material to be memorized. Kaye (1993) distinguishes between labels that inform and labels that interpret: "Interpretation is holistic. It cultivates values. It develops relationships. It relates to an individual's experience. It creates understanding. It motivates. It fosters appreciation. It uses ‘What if?’ and ‘So what?’ questions to forecast, predict, evaluate, and speculate. Interpretation is revelation based upon information” (p.
Adams and Moussouri (2002) advocate the development of research-based “approaches that facilitate the meaning-making process so that visitors reach more plausible conclusions that are related to the object, its context and the ‘big’ ideas it raises” (p. 16). Well-designed labels are a tool to increase museum access, giving non-experts the necessary support to make sense of unfamiliar objects. Museum labels can be considered a form of instructional scaffolding, providing visitors tools with which they can construct accurate and personally meaningful knowledge related to display objects.

Indeed, making museum texts and exhibits personally meaningful and accessible to a wide range of people is a—perhaps the—key issue of current visitor studies. Falk and Dierking’s (2000) Contextual Model of Learning, developed to understand learning in free-choice settings such as museums, has been particularly influential. All label and exhibit design choices are one part of what Falk and Dierking describe as the physical context of the museum. This physical context overlaps and interacts with the other visitor contexts, sociocultural and personal. The sociocultural context involves social interaction within the museum and without, including the influence of one’s cultural background. Each visitor’s unique personal context includes their prior knowledge, developmental level, museum experience, interests, attitudes, and motivations for visiting (Falk & Dierking, 2013, p. 27).

Falk and Dierking describe how these personal identity factors are expressed in visiting agendas, seven categories for what visitors hope to get out of a museum visit on a

More recently, a fourth context—temporal—has been added to this model.
particular day: explorers, facilitators, professionals/hobbyists, experience seekers, rechargers, respectful pilgrims, affinity seekers. These categories are situational, and can also coincide. For example, when I choose to visit a museum solo, I am usually an explorer, driven by general curiosity. When attending with my children, I am often a facilitator, focused on the learning of others. However, I could at the same time be motivated by other needs; since beginning this thesis, for example, I attend closely to pedagogical methods wherever I go, a professional/hobbyist interest. Falk and Dierking argue that these categories can guide not only marketing, but design of the physical context, including labels. The goal should be “to insure that someone with a particular motivation, or combination of motivations, can find ways to use your exhibitions and programs to meet their varied needs. Designing exhibitions and programs that are open-ended, allowing for multiple entry points and different outcomes, is critical” (p. 63). Visitors find exhibit elements, including labels, interesting or engaging based on their current identity motivations.

Perry (2012) also argues that visitors are driven by identity-related needs; however, she focuses on the needs and motivations that are shared by visitors. Her Selinda Model identifies six visitor motivations that are all essential to the design of a fun learning environment: “museum visitors will be more likely to have satisfying,  

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6 Since Perry is an instructional designer, it is likely no coincidence that I found her research more appealing from a design perspective. I consider Falk and Dierking’s model extremely useful in making sense of why visitors may have different or even conflicting experiences of the same exhibit, while Perry’s work is targeted towards creating an appealing experience for the majority of visitors.
intrinsically motivating experiences when their engagements with exhibits meet their
needs to (a) be part of a communication process, (b) have their curiosity piqued, (c) feel
safe and smart, (d) be challenged, (e) be in charge of their learning, and (f) be playful” (p.
40).

One aspect of visitor identity that stands out as particularly relevant to
engagement is expertise.7 Similarly to Falk and Dierking’s contextual model, Smith and
Wolf (1996) identified three “influences on the nature of the museum visit” (p. 236).
They mention the exhibit objects, the presentation and interpretation, and the visitors
themselves. Their research, conducted in an art museum, suggests that the most crucial
factor in understanding visitor choices is visitors’ prior knowledge. Those with expertise
in art history behave differently in the museum:

These visitors require little care or feeding on the part of the Museum; they
typically know how they like to look at art, are at the Museum to learn, and
have definite plans for their visit. Visitors less knowledgeable in art history,
by far the largest segment of the Museum audience, seem more open to the
influence of the Museum. (p. 237)

Doering and Pekarik (1996), writing of visitors’ “entrance narratives,” also highlight
prior knowledge as a crucial element in the museum experience. They suggest “the most

7 Of course, expertise cannot be separated from other aspects of identity such as interests. Interests, for
example, influence which subject matter areas one subsequently gains expertise in, and the process of
gaining expertise affects the interests you will seek out in the future, and the museum objects that appeal to
you. My choice to focus on expertise is a matter of narrative elegance.
satisfying exhibitions for visitors will be those that resonate with their experience and provide information in ways that confirm and enrich their view of the world.” (p. 20). In other words, museum goers are seeking validation.

Likewise, Falk and Dierking (2013) assert that “visitors are particularly attracted to what they ‘sort-of-already’ know about and find interesting” (p. 110). Visitors have certain expectations about what they want to see in the museum, and their engagement patterns and satisfaction are intimately connected with these expectations. “Yes, people want to see new things, but not things they’ve never heard of or thought about before” (p. 110).

From the literature on history and museum education, I developed an understanding of how the label literature recommendations could be effectively applied to increase visitor engagement in the history museum setting. Visitor studies scholarship emphasized the extent to which engagement is tied to the identity of the visitor; this was a necessary reminder that instructional design should be about empathizing with the needs and motivations of the learner, rather than crafting some ideal instructional material in a vacuum.

As I read the literature on history and museum learning, it became increasingly evident that engagement was central to the research I wanted to conduct: my goal was to better understand how specific history museum labels affected the engagement of individual visitors. However, in the museum label and visitor studies literature, few of the researchers explicitly frame their work in terms of engagement. Although the word engagement has increasingly appeared in museum literature in recent years, it is typically used colloquially, as a synonym for interest or participation. No shared definition of
museum engagement has developed. Wood and Wolf (2008) note that researchers tend to define museum engagement “as actions around the attraction to and length of time at an exhibit; sometimes engagement is seen as motivation, at other times participation and interaction” (p. 123). Often, the researcher’s individual understanding of engagement is implied through what measure(s) they are studying, rather than stated directly.

When the word “engagement” appears in the museum literature, it is usually in reference to hands-on exhibits in science centers (for example, Haywood & Cairns, 2006) and/or digital technologies. Often, the most persuasive evidence that visitors are engaged is that they physically interact with exhibit objects, but this method is not applicable by researchers in most history museums. To examine the process of engagement in a history museum, I would need to consider methods more appropriate for that environment. This realization prompted me to explore a further field of literature, that of engagement in learning.

**Engagement in Learning**

Much of the research on engagement in learning has focused on the school engagement of children and youth. Typically, researchers identify multiple “components” or “dimensions” of engagement. Some frequently recurring dimensions include affect/emotion/identification (sense of belonging, interest, emotional reactions), behavior/participation (paying attention, obeying school rules, participating in class and extracurricular activities, effort to complete assigned work), and cognition (persistent

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8 This is also true of the word “interaction”, which is often used interchangeably with “engagement”.

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Rather than simply categorizing a student as engaged or disaffected, each type of engagement is usually understood as existing on a continuum. Scholars such as Audas and Willms (2001) and Libbey (2004) define engagement as the extent to which students are engaged, as opposed to a quality that is either present or absent. Moreover, an individual learner might be highly engaged across the dimensions, or only in a particular one. So, for example, a student might actively participate to get good grades (behavioral engagement), while caring little about cognitive mastery. Without a multidimensional investigatory approach, this student who is “playing the game” of school can appear to be an enthusiastic, intrinsically motivated learner.

Behavioral indicators of engagement are observable, whereas the emotional and cognitive components “involve the internal psychological experience” (Furlong et al, 2003, p.103). Perhaps the difficulty of gaining access to those experiences explains why behavioral measurements have been so prevalent in the engagement literature (Jimerson, Campos, & Greif, 2003, p. 8).

This focus on observable behaviors, such as time spent on task, is also typical of museum research. The researchers coming from a psychology background, and the researchers in science centers regardless of their background, seem far more likely to study how long visitors spend with a particular label or exhibit (behavioral engagement), rather than exploring its emotional impact (affective engagement). Of course, observable behavior such as time spent reading implies emotional and/or cognitive engagement, but
the link is tenuous without further support. In leisure settings like museums, the choice to manipulate such exhibits and tools signals that the visitor is engaged, but not how or why. The same could be said of the choice to read a label.

Even qualitative studies that analyze visitor conversations do not adequately address these how and why questions, when viewed through the lens of the learning engagement literature. In most such studies, the researcher ultimately interprets the visitor experience, using his or her own judgment to determine the significance of speech and behavior. For example, it is reasonable to presume that visitors are engaged if they speak animatedly and at length about an object. However, not everyone displays engagement in the same way. Individuals may be highly psychologically engaged while showing little outward sign, instead quietly and privately contemplating.

Rarely have visitors been asked to explain their personal responses to museum labels. Museums have surveyed visitors about their satisfaction with labels, and a few researchers have polled visitors about their label preferences. For example, giving visitors a choice between three label types, Gutwill (2006) found that visitors to an interactive science exhibit preferred labels that contained both questions and suggestions. Interestingly, though, label type had no significant impact on visitor actions or time spent at the exhibit. Since there were no observable indicators of heightened engagement, this insight could only be gained by asking visitors directly.

That said, it is important to note that museums are free-choice learning environments. Unlike students in school, visitors in museums are not required to read labels or recall material about the exhibit. Therefore, behavioral indicators may be more confidently linked to emotional and cognitive engagement.
Eileen Hooper-Greenhill (2007) notes that visitors have their own learning agendas, and “are well able to articulate whether they feel they have found out what they were looking for, have moved forward in their understanding of something, have been inspired or have simply had an enjoyable time” (p. 32). Given the multifaceted and individual nature of engagement, there is a need for research that prioritizes visitors’ perspectives on their own experiences.

**Summary**

At present, the majority of label research has focused on large institutions, typically science centers. Studies that investigate visitor engagement tend to focus on interactive exhibits, again favoring science centers. There is often a tendency towards looking at one type of engagement, such as behavioral, instead of taking a multidimensional approach.

The label, history education, and visitor studies literature, when taken together, suggest label design strategies to facilitate visitor engagement in the history museum. The engagement in learning literature, however, provided the missing piece I needed to move forward in my research design. Data collection would need to consider all facets of engagement, including affective and intellectual engagement. To get at such internal experiences, observation and surveys would be insufficient. Interviews were necessary to understand how labels influence the overall process of engagement at a local history museum.
Chapter Three: Methodology

Why a Qualitative Study?

While studying instructional design, I became interested in how captions transform how people interpret an image. This led me to think about museum labels as a potentially powerful tool in education and to ask the following research question: “In what ways might exhibit labels influence the process of engagement in a history museum?” Reading up on label design, I discovered much advice on how to create a label, from formatting issues to the selection and sequencing of content. Often, the guidelines are specific and directive, making them quite useful for museum practitioners. In many cases, the advice is supported with quantitative research demonstrating how label variables correlate with visitor behavior or recall. Given the lack of research in small, local museums, I felt it would certainly be worthwhile to conduct such a study locally, to see if the results are similar. Briefly, I considered an experimental study, where groups would experience the same exhibit under different label conditions.

However, when I thought more deeply about my research goals, I realized that most of the causal questions I had would not be addressed with an experimental approach. Maxwell (2013) explains that

[Q]uantitative and qualitative researchers tend to ask different kinds of causal questions . . . quantitative researchers tend to be interested in whether and to what extent variance in \( x \) causes variance in \( y \). Qualitative researchers, on the other hand, tend to ask how \( x \) plays a role in causing \( y \), what the process is that connects \( x \) and \( y \). (p. 31)
What I really wanted to understand was what visitors are actually thinking and feeling throughout their visit, and their perspective on how labels mediate this process. To get at internal and uniquely personal experiences, and to understand the overall process of engagement, are goals that are best addressed with qualitative methods. Denzin and Lincoln (2011), in their definition of qualitative research, note that “qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them” (p. 3). Since these meanings can be so personal and unexpected, studying them required an in depth, exploratory approach.

**Overall Research Approach**

In order to answer my research question, I designed new labels for an existing exhibit at a local history museum. Other than adding these labels and removing a brochure, I made no changes to the exhibit itself. A public event was held, where participants were invited to visit the exhibit. Three methods were used for data collection: observation, questionnaires, and interviews. This methodological triangulation was intended partially to contribute to the richness of the study, and partially to ensure more informed and productive interviews. All participants completed a questionnaire at the end of the museum visit, and some participants volunteered to take part in follow-up interviews. Fourteen participants completed the questionnaire on the evening of the event, and five more over the following two weeks. Six people took part in follow-up interviews.
This study was not intended to prove that certain kinds of labels are better than others at engaging visitors. As such, there was no before-and-after comparison to establish that the labels changed visitor outcomes. I undertook a qualitative study to explore the process of engagement from the perspective of the visitor. This perspective, as previously noted, is underrepresented in the literature. Since I was interested primarily in visitors’ internal experience, I selected data collection methods that asked them to reflect upon and communicate this experience (questionnaires and interviews). Observations made during the event were used to inform the interviews, rather than to interpret visitor engagement.

Invitations and pre-study consent forms clarified that this study was about museum labels. Visitors were influenced by this foreknowledge; for example, some visitors reported reading more than they would in a typical museum visit. Although this influence was anticipated, I chose not to obscure the focus on labels. The qualitative nature of the study, looking at the process of engagement, did not require that participants be kept in the dark about my research question. Any partial disclosure or deception would needlessly complicate the study, requiring a survey that skirted the label issue, and might therefore fail to yield relevant insights. Full disclosure also seemed the best method to attract participants with a particular interest in labels, a group that could yield valuable insights.

Informed Consent and Confidentiality

This study was advertised on the University of New Brunswick online news page, which is visible to UNB students and staff. An email notice of the event was also sent to
all UNB Education Faculty and graduate students. I personally invited a few people who might have a special interest in the study. The invitations did not obscure the nature of the research; participants were informed that they would be asked to visit a particular exhibit at the Fredericton Region Museum and complete a post-visit survey. They were also informed that light refreshments would be provided, though I do not believe this compromised the voluntary nature of participation.

Before they entered the exhibit, I asked participants to read and sign an information and consent form (see Appendix C). Participants were assured that they would not be recorded during their visit, that the surveys were completely anonymous, and that they might decline to answer any question or withdraw from the study at any time. Participants completed the surveys in a room on the lower floor of the museum, where refreshments were available, while I remained on the upper floor near the exhibit. The surveys did not request a name, and the only identifying information was broad age group (in 15-year ranges) and number of visits to the museum. A UNB professor collected the surveys, and directed attention to a voluntary interview sign-up sheet (see Appendix D).

In the following week, I contacted all those who volunteered to participate in interviews, to arrange a time and place that would be comfortable for them. All interview participants were asked to read and sign the interview consent form (Appendix E). Interviewees were assured that their participation was voluntary and anonymous, they could choose not to allow audio recording, and could choose not to answer a particular question or end the interview at any time.
Soon after completion, I transcribed each interview. Pseudonyms were used, and all other identifying details removed from the transcripts. The audio recordings were immediately destroyed. All consent forms, surveys, and interview transcripts will be destroyed in October 2016.

The Setting

This study took place at the Fredericton Region Museum, a local non-profit. I had previously done volunteer work for this museum, and requested permission to conduct this study via a letter to the Board. Executive Director Ruth Murgatroyd was quite helpful; among other accommodations, she opened the museum in the evening, when it would normally be closed.

The history museum, housed in a striking historic building, features over ten exhibits, including “An Assembled Drawing Room for a typical Aristocratic Fredericton Colonial Family, Pre-Confederation Time (1800-1850).” This exhibit, curated by David Staples, contains portraits and furniture from the period, and is pictured in Figure 1.
The room is located on the second floor of the museum, up a flight of stairs. An exhibit brochure is normally available in the room, detailing the dimensions, provenance, and other information about most of the exhibit artifacts. It can be seen on the table to the left in Figure 1. The only labels in the room are numbers, which correspond to the brochure entries, and a few labels that warn against touching the display objects. I chose this exhibit primarily because there were no labels, and thus repeat visitors to the museum would not be comparing the newly designed labels to a previous version.

**Label Design Methodology**

For this study, I removed the brochure from the room, and designed twelve original labels, with reference to the guidelines specified in the preceding literature review. During the label preparation phase of this project, I spent several months
researching a variety of topics, including 19th-century hair and clothing fashions, the role and evolving aesthetic of the drawing room, and cabinetmaking techniques. Most of this material was new to me, since I had previously gravitated towards 20th century European history. I was searching for fun hooks for labels that would support learners in relating to these and other artifacts in new and engaging ways.
I discovered one of these hooks in an article in one of the museum’s newsletters, which described the beard movement of the 1850s, during which it became much more respectable for gentlemen to sport facial hair. I noticed that only one of the men in the exhibit portraits was bearded, and this was indeed the one portrait completed after 1850. This made me think of the possibilities for dating portraits based on fashion. Were trends in the 1800s as identifiable to a particular decade as they are today? If portraits were not signed or dated, could a novice make reasonable estimates of the period by comparing clothing silhouettes and accessories against other examples? I was attracted to approaches like this for several reasons: 1) The puzzle/challenge aspect; 2) Encouragement to interact closely with display objects, including cross comparison; 3) Opportunity to apply and develop skills historians might use; 4) Transferability of skills to other settings and mediums (film, photography); 5) Potential for rich insights regarding the evolution of gender and class distinctions; 6) There is no linear, set method for tackling this problem, and it is likely that each member of a group would have something to contribute, supporting social learning.¹⁰

This is the first label I began, though the last completed, as it was the most research and design intensive. I settled on presenting a fashion timeline of the first half of the 19th century, with images arrayed along the timeline indicating when certain hair and

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¹⁰ For example, although I focused on sleeves and necklines, one of the people I spoke to actually noticed details of the furniture in the portraits. They pointed out that the arm of the chair in one portrait had similar beading to one of the pieces of furniture in the room, speculating that the portrait was likely painted after such furniture styles became popular.
clothing styles were chic. The label introducing the timeline was created long before the actual timeline was finished, and is reproduced in Figure 2 at smaller than actual size.

### How can we tell when a portrait was painted?

Many portraits aren’t signed or dated by the artist. To determine the date, experts might look at materials, painting technique, and the frame. One other clue you can use is fashion. As illustrated on the timeline below, some clothing and hairstyles were only popular for a short time. Referring to the timeline, as well as any other evidence you see, can you guess the general date of the portraits in this room? When you’re ready, flip up the timeline to see how you did.

**Figure 2: Label Sample (Portrait Timeline)**

During the label preparation process, after moving forward with this fashion timeline idea, I consulted a well-respected museum professional and authority on period furniture. I hoped to learn more about some of the ways experts estimate the date of a piece. I had a number of questions, such as whether specific types of wood were more popular or only available in certain years in New Brunswick. I was so excited about the fashion timeline label for dating portraits, that I was envisioning something comparable for the furniture. I imagined a unifying theme for all the labels, where each would offer ways to look at dating the pieces through different fields of expertise. Do chemists have a role in dating paintings? How do antique experts distinguish between originals and reproductions, or revivals of an older style? However, the authority I consulted stated that
he did not think this would work. First, the dating of furniture requires years of specialized training and experience, and even with guidance it is not something a novice could successfully attempt. Second, he was concerned that such labels would be fundamentally lacking. Offering a quick lesson on museum interpretation, this person explained that I should consider how each object reflects the owner, their society, and the values of each. As I understood this, my proposed labels (tips for examining and interpreting the surface elements) would not help visitors “look through” the object to its deeper original context.

I was discouraged by this response, and started to doubt my original plan. An authority in this area had serious reservations about this approach, and given my own inexperience, it seemed arrogant to ignore his advice. Moreover, I just was not finding sufficient information on dating local furniture through reading books and articles. I decided to loosely focus on historical continuity and change, both from decade to decade in the 19th century, and from the first half of the 19th century to today. This was a prominent theme already embedded in the previous dating idea; in all of the labels I was developing, the key to dating was applying historical knowledge about changing styles. Although this slackening of focus meant the exhibit labels would no longer be tidily themed, it also allowed more latitude for label variety. This is debatably incorrect for an actual permanent exhibit, though there seemed to be benefits for label research. Since each label will be pictured at some point in this thesis, I will not further belabor their content here.

Typographic features were consistently applied, with the Trebuchet MS typeface used throughout. Although varying label typography would be an interesting exercise for
another study, I was primarily interested in how label content affects the process of engagement, and thus typographic consistency was crucial to avoid confusing these issues. Label titles were bolded, in a 20 point size, with label body text in 18 point. Spacing was set at 1.5 lines. Titles were centered, and body text flush left, ragged right. All labels were printed on neutral colored cardstock.

Three of the labels had minimal content, with nothing more than a title listing what the object was and its presumed date. For example:

**Large Mahogany State Armchair, ca. 1835**

Figure 3: Label - Armchair

Five of the labels had one or more full color pictures. Six of the labels included questions or activities. A few of the questions were in the title of the label itself, while others appeared further down. Labels were affixed with tape either to the wall next to the objects or to the objects themselves.

**Description of the Event**

A public event was planned for Monday, October 27\textsuperscript{th}, 2014, at 5:00 pm. This event was advertised on the University of New Brunswick online news page, which is visible to UNB students and staff, a week prior to the event. An email notice of the event was also sent to all UNB Education Faculty and graduate students. People who might have a special interest in the study, such as family members with expertise in 19\textsuperscript{th}-century furniture, were verbally invited to attend. Potential participants were encouraged to
confirm their attendance, but the event also remained open to anyone who wished to spontaneously take part. I understood that this strategy of attracting participants would not produce a representative sample of typical museum visitors, and the results of this study would not be generalizable.

On the evening of the study, participants were greeted as they arrived, and shown the way upstairs to the exhibit. Since people arrived at various points over a two-hour period, there was seldom more than a few people in the room at any one time. The majority of attendees were women. They were asked to read and sign a consent form (Appendix C) before entering the room. I collected these forms and stood outside the door to the room, in a position where just over half of the exhibit was visible, and unobtrusively observed, jotting down notes.

After visiting the exhibit, participants walked down the stairs, and completed the surveys in a room near the entrance to the museum. A UNB Professor oversaw this process, handing out the surveys and drawing attention to the interview sign-up sheet. Refreshments were available. On the evening of 27 October 2014, fourteen participants completed the post-visit survey, and seven agreed to take part in a later interview. The Fredericton Region Museum graciously offered to leave the labels up in the exhibit, with consent forms, surveys and pens available. Although the museum has few visitors in the fall, five further people chose to complete a survey over the next few weeks, bringing the total number to nineteen. Six of the seven people who volunteered for interviews were able to meet with me over the following weeks. All interviews were conducted in person, and audio recorded. One interview was conducted in my home, one at the home of the interviewee, and four in an office on campus.
Observations

Since I was far more interested in visitor’s states of mind than their behavior, I was skeptical about observation as a method of studying engagement. As previously mentioned, there are multiple difficulties with seeing and interpreting internal experiences, and observation seemed ill-suited to my purposes. I nevertheless chose to include informal observation in this study. This decision was partially to hedge my bets, as it was possible that I was unfairly dismissing observation as a stand-alone method of engagement research. I did not want to risk missing some surprising insight that could only come from observation. It also seemed useful to challenge my expectations, even if only to confirm that observation did not yield the quality of data that would come from participant self-report. Most significantly, I thought that observation would be helpful in developing interview questions. I could get a sense, in broad strokes, of what was happening in the room: how people moved about, whether people spent more time with particular artifacts, and how people interacted. This would better prepare me to ask informed interview questions, so that I might get the participants’ perspectives on what I noticed. Although observation would not be sufficient to understand visitor engagement, it had potential when used in concert with other methods.

Though I originally considered placing video cameras in the room, this idea was rejected due to the potential discomfort of participants. Instead, I chose to stand outside the room and take unobtrusive notes in a book. Before the event, I entered a few headings to track, such as “movement” and “popular/unpopular artifacts.” However, most of my note-taking was spontaneous, based on what I was noticing at the event, such as pronounced patterns or surprising behaviors.
Due to handling consent forms and interacting with arriving and departing visitors, note-taking was neither continuous nor thorough. In some cases, I was unable to take any notes or perform sustained observation for up to a five minute stretch. However, conversations, particularly with departing visitors, did yield some intriguing information; for example, several visitors chose to ask me about a label question, or speak about something they had seen or done in the room.

McManus (1990) notes that label reading behavior is subtle, and observations may not be accurate. She reviews the results of a museum label study that employed two data collection methods: observation of label reading, and recorded transcripts of visitor conversations. In this study, observers noted that 66 out of 114 visitor groups were seen to read the labels. The recorded transcripts, however, provided evidence that 86 of these same groups quoted or paraphrased the label text; 22 groups who were coded as non-readers had in fact read the labels. Therefore, to counter the possible inaccuracy of my observations, I included the main behavioral question (about label reading) in the questionnaire as a self-check.

**Survey Instrument**

To increase survey response rates, Judy Diamond (1999) advises researchers “to minimize the amount of time it will take for someone to fill out a questionnaire” (p. 97). Fowler (2009) agrees that “ease of response is a priority to maximize returns” (p. 72). Although a lengthy survey with many open-ended questions would provide the richest data, participants might not be willing to complete such a survey, and it would almost certainly harm their enjoyment of the experience. For this study, the questionnaire was
kept to two pages, with a balance of question types. The complete, formatted survey can be found in Appendix A.11

In the first section of the survey, checkbox questions were included to gather basic demographic information (frequency of visits to the Fredericton Region Museum, and general age group). In the second section, phrase completion scales were used to gather information on attitudes. These unidimensional scales, described by Hodge and Gillespie (2007), ask respondents to select a number from along a continuum marked 0-10, with 0 representing the complete absence of a trait and 10 representing its maximum presence. This design could potentially avoid a few issues with Likert scales, including over-selection of the “neutral” option. The phrase completion questions were:

a) I felt interested . . .

Never
0 1 2 3 4 5 6 7 8 9 10

b) I felt challenged . . .

Never
0 1 2 3 4 5 6 7 8 9 10

c) I felt bored . . .

Never
0 1 2 3 4 5 6 7 8 9 10

d) I felt frustrated . . .

Never
0 1 2 3 4 5 6 7 8 9 10

11 As a check that the questions were understandable and not too time consuming, I asked three adults to review the survey prior to this study. As a result of this process, I tweaked the design of the phrase completion questions, and altered the wording in open response question two.
In this section of the questionnaire, each type of engagement had at least one associated item. For example, for emotional engagement, visitors were asked to what extent they were “interested”; for cognitive, “challenged”; and for behavioral, to what extent they read the labels. Although words like “interested” are related to engagement, the word engagement itself was not mentioned on the questionnaire, as this might distort responses.\(^\text{12}\) In an attempt to address the acquiescence bias, I interspersed a few opposing items, asking to what extent participants felt bored and frustrated. As Maxwell (2013) notes, numerical data is “important for identifying and communicating the diversity of actions and perspectives in the settings and populations you study” (pp. 128-129), and its use can “check the internal generalizability of your conclusions” (p. 137). Although these items provide a narrow glimpse into engagement as a whole, it was thought that they might inspire some interesting explanations in the open-ended questions.

Open-ended questions were included to help contextualize and enrich the closed question responses. Although I anticipated this would be by far the most fruitful portion of the survey, since it would elicit the visitors’ own words, I chose to limit the number to

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\(^\text{12}\) Sapsford (2006), advises obliqueness when measuring attitudes in surveys: “To the extent that we are open about what we are doing, we tell the respondents what sort of answers we are seeking and, often, what answers are acceptable. Being helpful people, they will generally try to help us by giving the ‘right’ answers, which may defeat the purpose of the research” (p. 106).
four questions. This would reduce the burden on participants, and hopefully encourage well thought out responses for the questions included. The open-ended questions were:

   a) Can you expand on any of the above answers? (For example: What did you find challenging? What makes you decide to read a label?)

   b) Was there one item in the exhibit that stood out for you? Which one? Why?

   c) Which do you tend to look at first: an artifact or its label? Why?

   d) Of the four labels on the next page, which do you think most people would prefer? Why?

The survey was anonymous to address, to some extent, social desirability bias. This bias is the tendency to emphasize traits the respondents perceive to be socially attractive, while minimizing unappealing traits, so as to depict oneself in the best possible light. The final open-ended question was also deliberately worded to avoid this bias: rather than asking which label style the respondent preferred, I asked which style they thought most people would prefer.

**Interviews**

Although, as indicated in the literature review, some researchers emphasize the divisions between dimensions of engagement, these dimensions are of course interconnected. Engagement cannot be neatly isolated as purely emotional, behavioral, or cognitive. This complexity is difficult to capture in an instrument like a survey, so interviews were vital to this research.

Interviews were conversational and loosely structured. All participants consented to audio recording. Interviews were subsequently transcribed with pseudonyms, and identifying details removed. The audio files were then destroyed. During the interviews, I was concerned that interviewees would try to “help” me by trying to anticipate what I
wanted to hear. To avoid this, I did not ask any questions like “Did you find the labels at this exhibit engaging? Could you explain why?” The rough script for the interview is provided below, though in many cases I altered the order of the questions, or asked additional questions, based on what the participants were saying. All of the questions in “category 3” were added to the interview script after reviewing the observation and survey data. Photographs of the exhibit and reproductions of all labels were used as interview prompts. Unless I was asking a specific off-script question, I did not point to or pick up any of the prompts, which were spread out on a table during the interview. I was interested to see which objects and labels the interviewees would notice and choose to talk about.

Interview Script

Category 1: Prior Experience

- How often do you visit museums? Do you usually visit history museums, or other types of museums?
- What do you think most people want out of a history museum visit?
- Can you remember one really neat thing you’ve seen or experienced at a museum?

Category 2: Walk Me Through Your Experience at this Exhibit

- I have some pictures here of the “Assembled Drawing Room” exhibit, and all of the labels. What I’d like you to do is just walk me through your experience, as much as you can remember it. So, for example, I’d like to know what you looked at first, and how you moved around the room. If you can remember, I’d be interested to hear what you were thinking and feeling at any point. Take your time, and we can start whenever you’re ready.
Category 3: Your Perspective on Observation and Survey Data

- A few people told me that they only read the labels carefully because they knew it was a label study. Normally, they only skim labels. Is that your experience in museums?
- This timeline label, a few people seemed reluctant or unsure if they could pick it up. Was that your experience?
- People had very mixed opinions about questions on labels. Some people told me they really liked it, and some people told me they strongly preferred the labels that did not include any questions or activities. What was your reaction to the questions? Was there a question that you particularly liked or disliked?
- What is your opinion of pictures on labels?
- To me, it seemed pretty quiet in the room. Did you hear any conversation, or speak to anyone? Do you remember what you spoke about?
- I noticed a few people stopped to look at objects outside of the room. Did you see anything that caught your eye? Did you look at the label?

Data Analysis Methodology

I used a qualitative data analysis approach, involving reading and rereading, taking notes, and marking items of interest (see Maxwell & Miller, 2008, p. 465). At first, I applied a categorizing approach, segmenting the data into label design “themes” such as label length. Later, when the findings were in danger of becoming decontextualized, I added a narrative connecting approach.

Immediately following the public event, I numbered the surveys, and transcribed all data in tables. The data from each survey was entered across a row of the table, so that
survey number one occupied row number one, and so on. Each table column represented one survey question. I thought that this arrangement might help me to identify patterns in the responses. For example, it would be easier to see if people who reported high levels of interest all tended to prefer a certain label in open-response question four. This strategy was not helpful, and I found no such patterns.

I then began reviewing the observation notes and survey data, reading repeatedly and pausing to think, making notes with each reread. At first, I looked for topics that seemed to recur, checking if the data actually matched my impressions. So, for example, I searched to see how often, and in what context, respondents mentioned label questions. In this case, I found that many respondents did indeed comment on questions, and marked this as a topic that should definitely be raised in the interviews. In other cases, my impressions were misleading. I had the idea, for example, that culture was mentioned several times, but it was only raised by a single respondent in a single response. At times like this, I highlighted the lines for further deliberation, and returned to them repeatedly over the following months: why did certain statements weigh so disproportionately in my memory?13

Prominent topics, as well as observations that surprised me, were incorporated into the interviews. Participants were asked to share their perspective on what was happening, and to corroborate or contest my observations. All interview participants granted permission for audio recording, and I fully transcribed interviews shortly after

13 The statement in question: “none of [the labels provoked me] except for the fact that they are so alien to me. They represent such a different culture and time which are was hostile to my culture + time.”
completion. Transcription forced me to slow down and process every word, which was helpful for data analysis. I paused frequently to jot down ideas, and refer back to the observation and survey data. After reading over each interview, I compiled a preliminary list of topics, and chose a symbol for each (example: ♥ for emotions). I went through all the survey and interview transcripts once again and placed symbols where appropriate, then read through the data thematically rather than chronologically.

In this categorizing approach (Maxwell & Miller, 2008), I was trying to make sense of the data by sorting it into neat, defined groups. In this process, I believe I was overly influenced by my prior research, and the categories identified tended to emerge straight from the literature review. Since I spent so much time reading and thinking about label design, I immediately picked up on everything participants said that related to label length, label titles, typography, etc. Based on this data, I identified a number of label factors that were relevant to visitor engagement. I began fleshing out each of these categories in attempt to understand what was happening. For example, when people alluded to label length, how was this spoken of in terms of engagement or disengagement?

While developing these categories, I started to notice a pattern that held true across each: although visitors tended to agree about general label design principles, in ways that confirmed most prior label research in the literature review, this consensus broke down when it came to specifics. So for example, all participants might agree that labels should be x, but when I explored this conviction further, it became clear that each had a quite unique understanding of x. Approaching these results from a design
perspective was frustrating, as the credible design advice was not as prescriptive as it first seemed. Creating labels with qualities x, y, and z was far more an art than a science.

After I noticed this uniting pattern, it clarified some of the unease I was feeling during the data analysis process. In segmenting the data into neat label design categories, and comparing these isolated results to previous research, I was losing my focus on the overall process of engagement. Considering each interviewee’s experience holistically seemed the missing piece to contextualize the other results, since each visitor’s individual identity was clearly determining how they interacted with the labels.

In the early drafts of this thesis, the findings chapter was organized according to the label design categories I had identified as significant. So, for example, I pulled together all mentions of label length from the various surveys and interviews, and wove them into a story about how label length influenced the process of engagement in this study. In later drafts, I augmented this thematic approach with short visit narratives for each interviewee, to illustrate how identity factors influenced visitor perspectives on labels. In this final version, I have scrapped the thematic approach to the interviews entirely, in favor of rich, extended visitor narratives. This technique was most consistent with my goal of understanding the overall process of engagement.

Limitations of this Research

The small scale and single location of this study is certainly a limitation, as is the method by which I invited people to the event. Participants were disproportionately frequent museum visitors, and many were associated with the UNB Faculty of Education.
Further studies would be required to understand the process of engagement of other types of museum visitors.

Although the social aspects of museum visits are fascinating, the set-up of this particular study meant that most participants attended singly. Since I did not record the visit, and no pairs volunteered to be interviewed, I have little of substance to add about how labels influence family or social group interaction.

As this research was dependent on participant self-report, response bias is a concern. There is some indication that this bias compromised the survey results. I was particularly alerted to this possibility by replies to Question 4, where a few participants justified why they did not choose Label 3 (the label that encouraged visitors to look for rosewood in other pieces in the room): “I do like #3, but again, trying to find other examples takes time, and then one can’t be certain that what they are finding is what one is looking for.” I reflected upon these responses at length. I suspect that many participants connected Label 3 most closely with the type of labels I had created for the exhibit. Perhaps they believed I wanted people to select Label 3, and thus were trying to be gentle about what they perceived as rejection, or defending what they correctly predicted would be a minority answer. It is possible, and frankly I believe probable, that demand characteristics (Orne, 1962) played into the overwhelming preference for Label 3; perhaps visitors, in their survey answers, were attempting to be proper or ideal study
participants. Readers of this research should keep this possibility of response bias in their minds when interpreting the data.\(^{14}\)

A notable data analysis limitation of this research is that I chose not to employ member checks. The interview audio recordings were clear, and I am experienced in transcription, so I am confident that the transcripts accurately represent what the interviewees actually said. However, readers should be cautious regarding my interpretation of the interviewees’ words. To this end, I have been careful to distinguish between what interviewees actually said (in quotation marks), and what I took these words to mean. I considered sending the visit narratives to interviewees, but opted against it, for a few different reasons. I had already placed significant demands on their time. There was also a substantial lag between the collection of the data and completing the visit narratives, since at first I adopted a collective and thematic rather than individual approach. As the interviewees were asked to walk me through what they remembered thinking and feeling during the visit, their perspective six months later might be quite different. I prioritized the earlier, spontaneous responses.

\(^{14}\)The phrase completion results were overwhelmingly positive, with all participants saying they read all or nearly all label text, and were interested all or nearly all of the time. Response bias is one possible explanation for this pattern. Alternatively, volunteers for a museum label study are presumably, as a group, likely to be interested in museum exhibits and museum labels. Perhaps also, limiting this study to a single small exhibit prevented energy and interest from flagging, which tends to happen over the course of a longer museum visit.
Finally, although it certainly could be counted as a limitation of this research, I am not sure whether my museum outsider status ultimately helped or hindered this study. I was free to try things that were unusual or even improper, though I must admit this was sometimes due to inexperience rather than deliberate choice. Amateurishness harmed my credibility with professionals. For example, the gentleman referred to in the above label design methodology section was curious as to why I was attempting such research when I lacked museum expertise. However, when they pegged me as an amateur, professionals were willing to share their knowledge on how labels ought to be done in a frank and descriptive manner, perhaps more candidly than they might respond to a fellow expert. Even though their advice was excellent, I am not convinced that taking a different path was necessarily wrong.
Chapter Four: Findings

The interviews presented a rich picture of the ways labels can influence visitor engagement, and revealed far more variation in visitor experience than was evident in the observation or survey data. Since the usefulness of various data collection methods has implications for label researchers, this chapter is structured by data source, explaining in turn the results of observation, the post-visit survey, and the interviews. Interview results are presented in individual, comprehensive visit narratives. The chapter closes with a data cross-analysis.

Observations

During the event, I was stationed outside of the exhibit room, taking discreet notes. I was able to see the majority of the exhibit from this position, but could hear very little of the visitor conversation. Roughly two thirds of the participants proceeded around the room on a circular path, with equal numbers moving clockwise and counterclockwise. The remaining one third of participants crisscrossed the room to look at certain objects or labels again. It seemed that people spent slightly more time looking at the labels than the artifacts, perhaps due to their awareness of the purpose of the study, though some visitors looked closely and carefully at details on the exhibit objects. A frequent pattern involved the visitor looking at the label, then the artifact, then returning to the label.

Most of the labels were of the familiar single layer type, either affixed to the wall or placed on the object, and designed to be read rather than physically interacted with. I did not witness anyone attempt to pick up or move these labels. Visitors had a number of different reactions to the one label that was intended to be picked up and flipped over (the
fashion timeline label). This label was visually distinct from the others in a few ways, including a significantly larger size, its placement on a shelf rather than on an exhibit object or the wall, and a clip in the corner indicating that there were multiple layers. An introductory label posted on the wall next to this timeline encouraged visitors to “flip up the timeline to see how you did.” Some visitors did not touch the label at all, while others seemed comfortable picking it up and walking around the room with it. I wondered if the people who did not touch the label were just disinterested, or if it was unclear that the label could be moved.

I was unable to get a sense of how long this process took for each visitor, as I was frequently distracted by greeting newcomers, dealing with consent forms, and answering questions as people left the exhibit. I did notice that there was significant variation in how long people spent; in a few cases, a visitor arrived before and then left after several subsequent visitors. Of the artifacts in my field of vision, visitors seemed to spend the longest with the pole screen, which can be seen in front of the fireplace in Figure 1. The portraits also attracted noticeable attention. The three artifacts with minimal labels, nothing more than a title, seemed to attract little or no attention. It was unclear whether that was due to the minimal labeling, or some aspect of the artifacts or their positioning.

The room was fairly quiet. Frequently, only one visitor was in there, though even with multiple people present many visitors seemed to speak in hushed voices or not at all. I was unsure why some visitors were silent, while others spoke, or why some visitor speech was hushed, while other speech carried outside of the room. Occasionally, visitors spoke to seeming strangers, and a few visitors spoke to me about a label question as they were leaving the exhibit. One visitor, for example, said that they looked for carved leaves
on the furniture in the room, but could not find any other examples. Another visitor said they were pleased to have correctly finished a task, and a third asked me to confirm their answer to a label question. Some of the visitors who spoke with me had been silent in the room, while others had spoken with other visitors.

I noticed three people, when leaving, stop short at a quilt hanging in the hall, which was not part of the exhibit. Each of these people scanned the label after looking at the object.

I followed up on several of these observations in the later interviews. I added to the initial interview script questions about how the visitors interacted with the timeline label, whether they had engaged in or heard any conversation, and what they had noticed in the museum outside of the study exhibit.

Survey Responses

Closed questions. Nineteen participants completed the survey, which included seven closed questions (checkbox and phrase completion) and four open questions. The closed question data is presented below. Tables 1 and 2 summarize the data for the checkbox questions, and table 3 summarizes the data for the phrase completion scale questions, indicating how many of the 19 participants chose each answer. In this section of the survey, every participant completed all the questions. In the instance of one participant, who marked two of the phrase completion scale questions between two numbers rather than circling a particular number, I have rounded each answer down by 0.5.
Have you been to the museum before?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>3</td>
<td>15.8%</td>
</tr>
<tr>
<td>1-2 times</td>
<td>6</td>
<td>31.6%</td>
</tr>
<tr>
<td>3+ times</td>
<td>10</td>
<td>52.6%</td>
</tr>
</tbody>
</table>

Table 1: Number of museum visits

What is your age group?

<p>| | | |</p>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>6</td>
<td>31.6%</td>
</tr>
<tr>
<td>25-39</td>
<td>3</td>
<td>15.8%</td>
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<tr>
<td>40-54</td>
<td>3</td>
<td>15.8%</td>
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<tr>
<td>55-69</td>
<td>5</td>
<td>26.3%</td>
</tr>
<tr>
<td>70-84</td>
<td>2</td>
<td>10.5%</td>
</tr>
<tr>
<td>85+</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2: Participant age group

<table>
<thead>
<tr>
<th>I felt interested . . .</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0) . . . The entire time (10)</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>I felt challenged . . .</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0) . . . The entire time (10)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I felt bored . . .</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0) . . . The entire time (10)</td>
<td>15</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I felt frustrated . . .</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0) . . . The entire time (10)</td>
<td>14</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I read . . .</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No part of any label (0) . . . Every word on every label (10)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Phrase completion questions

To summarize, just over half of the participants were quite familiar with this museum. A wide range of age groups attended; about one third were under 25, another third were between 25-54, and the remaining third were 55 or over. There were no apparent patterns connecting number of museum visits or age group with the phrase completion scale answers. For instance, frequent museum visitors were neither more nor less likely to feel interested or challenged. There were also no distinct patterns in individual phrase completion answers. A visitor who felt interested the entire time, for
example, was no more likely to have read every word than a visitor who reported less interest.

There was a strong pattern evident in most of the phrase completion scale questions, with far more consensus than I had expected: every respondent found the exhibit engaging. All participants indicated, for instance, that they were interested for most of the time, and that they read most or all of the label text. Likewise, all participants indicated that they were seldom or never bored or frustrated. The only category with a significant range of responses was “I felt challenged.” Participants answered everything from “never” to “the entire time.” This is the one phrase that is ambiguous, having positive or negative connotations depending on the reader. I included this item partially to identify connections between feeling challenged and feeling interested or frustrated, and partially to spark mention of cognitive engagement or disengagement in the open answer questions. Surprisingly, the degree to which participants felt challenged did not seem to influence their level of interest. However, several participants did write and speak about challenges in their responses to the open survey questions.

**Open question 1: Can you expand on any of your previous answers?** Though label questions were never mentioned on the survey, many participants chose to write about them here. Although one respondent wrote, “I can’t decide if I liked looking for

15 By “questions,” I am addressing both direct questions (ending with a question mark) and implied questions. As an example of the latter, the sofa label concludes with the sentence “Foliage motifs were common in this era; if you look closely, you will find carved leaves elsewhere in this room.” Several
things in the room or if I would prefer just being told,” most indicated they enjoyed the questions. The below quotes suggest that the respondents found these types of labels cognitively engaging:

- “The questions at the bottom of the labels challenged my thinking and caused me to ponder about the paintings in more detail. After the explanation about the different periods of the paintings and what to look for in changes of style, I was pleased that I was able to pick out the two paintings that were in the later time period.”

- “The labels with the question were engaging and thought provoking.”

- “I felt a bit more challenged when asked to ‘work’ at an answer. For example, compare items, look for things, figure out dates etc.”

One participant also explained that questions in the title made them more likely to stop and read a label, while “others attracted my interest far less.”

Another significant factor in label reading for the survey participants seemed to be length. Multiple people indicated that label length determined whether they became, and remained, engaged to read the label. Some clarified their preference for labels that were relatively brief, but at the same time substantial. For example, one participant explained, “I like to read labels that aren’t too long and that are in depth as well. They need to have the right amount of information.” In response to a later question, another expressed a

visitors indicated they grouped such implied questions with the direct ones, and had similarly positive or negative reactions to each.
preference for a label that “keeps it short, to the point and not only doesn’t bore with information not everyone would necessarily care for (ie dimensions) but also challenges visitors to find a like piece.”

One participant commented that the objects in the room felt “alien,” explaining that “they represent such a different culture and time which was hostile to my culture + time.” I found this statement so intriguing that I regretted making the surveys anonymous; because of this research design choice, I was unable to follow up on such lines of inquiry with the individual respondent.

**Open question 2: Was there one item in the exhibit that stood out for you?**

About half of the respondents wrote about artifacts only, and the other half about both artifacts and labels. In accordance with my observations, several people reported their fascination with the pole screen and the portraits. An equal number of people, however, noted their interest in the 1830 sofa, something I was unable to predict from observation alone. Other popular objects included the tall case clock and the portraits. Nobody mentioned any of the unlabeled artifacts, or the artifacts labeled with only a title and date.

Even more varied than the objects people noticed were the reasons they gave for noticing them. A large number spoke of a label question or activity, suggesting that they connected intellectually. For example, one person wrote “The question – what do we use to show wealth made me think.” A few participants also alluded to how a label surprised them, and heightened their interest in an object: “it is decorative as well as useful in all seasons whereas I thought it was just an art piece.” One respondent said they were particularly interested in labels “which included pictures or photos.” Some people wrote of how they felt personal connections to certain objects. For example, one person liked
the clock because it “reminded me of my family and their ‘old’ clocks,” and another favored the Nisbet table because he or she “did research on him.” A few participants spoke of their aesthetic appreciation for an artifact, noting it was “eye catching” or admiring the “beautiful carving.” In a type of connection I found particularly compelling, a few visitors identified with the people who created, owned, or used the artifacts, and tried to imagine their lives. One respondent said the people in the portraits “stare at you and want you to understand what they are saying,” and another envisioned the “stories” the sofa might tell of “what happened on or around it.”

Open question 3: Which do you tend to look at first, an artifact or its label?

The overwhelming majority of participants reported they look at the artifact first. A few people implied that this is because the artifact is the significant part of the exhibit, while the label is secondary (“the artifact is the focal point”). Some participants said that they based their decision to read or not read the label on their interest in the artifact itself. Other participants noted that they form guesses or questions while looking at the object, before reading the label to “verify” if their assumptions were correct. For example, one such visitor likes “to visualize its purpose then find out for sure.” Only a few visitors reported the approach I had observed frequently in the exhibit space, of looking at the artifact, then label, then back to the artifact. Had I the chance to revise the survey after the fact, I would alter the wording of this question to ask about patterns of looking at artifacts and labels, rather than just asking which the visitor looks at first.

The visitors who look at the label first all said they hoped to contextualize the artifact, and/or learn something else that would inform their viewing. One person explained, “I tend to read the label first to get background information before looking at
the artifact. It provides context, possibly information I need to pay attention to about the artifact.” A few of the visitors who look at the label second, however, also wrote of their desire to put the artifact in context.

**Open question 4: Which label would most people prefer?** The four sample labels that were included in the survey are reproduced below. I deliberately avoided using color or images, so as to maintain focus on content. All sample labels were adapted from Canon D.R. Staples’ excellent exhibit brochure.
Nobody selected Label 1. Although a handful of people picked Label 2 or Label 4, and some people suggested combining multiple labels, most participants chose Label 3. Even
though the word “engage” did not appear on this survey, many of the people who selected 

*Label 3* used the word in their explanation:

- “The 3rd label because it engaged the reader to examine the artefact and compare it with others in the space”
- “engages viewer with the piece and with other pieces in the exhibit”
- “It offers explanation as well as an activity to get engaged”
- “The third label is the most engaging”
- “Label 3 encourages you to interact with the exhibit. It provides information about the desk but adds an extra dimension by giving you additional information that will help you answer the question – kind of a conspirator-like invitation. Requires more engagement of the reader – (tho’ someone interested in working might like #2)”

In the other open response questions, variations of the word engage appeared only twice, both times also in reference to label questions or activities.

Interestingly, two of the people who selected other labels chose to justify why they did not select *Label 3*:

- “I do like #3, but again, trying to find other examples takes time, and then one can’t be certain that what they are finding is what one is looking for.”
- “4. Most information without asking an interactive quality. (Prefer this over the Question based #3, #3 would be my pick for a children’s event. School based project.)”

These responses suggest ways a label could cause visitors to become disengaged. The first respondent indicates that activity-based labels might cause visitors to feel burdened or apprehensive, while the second respondent implies such labels are inappropriate for adults. Also alluding to disengagement, a few respondents wrote that information about the dimensions of an artifact is “bor[ing]” and “not of much interest” to many people.

Some participants answered this question quite personally, using phrases such as “I prefer” and “it appealed to me.” Others were more authoritative, making statements about museum labels in general: “The best labels have information about the creation of
the item, its history and occasionally the history surrounding it.” It is unclear whether
these more far-reaching opinions were formed before arriving to the study, or upon
reflection while participating in the study. I noticed no connection between such
statements and visitor age, nor visitor experience in this museum.

Summary. The surveys suggested that many participants connected label
questions with visitor engagement. Most approved of such techniques, but a few
expressed reservations. Although only two respondents talked about label pictures and
color, most of the labels mentioned in the survey were ones that contained images. After
reviewing these results, I added two new questions to the interview script, addressing
label questions and label images.

The survey data reinforced some of my observations. For example, I saw that
people did not spend much time with the unlabeled or minimally labeled artifacts, and the
survey results support this lack of interest. However, the survey revealed much that I
either had not observed or could not observe. Most notably, I gained insight into the
diversity of reasons people are attracted to certain artifacts or labels. Through
observation, I could often deduce interest correctly, but I had no way of knowing what
was motivating that interest. I saw that people were looking at the portraits longer and
more intently than many of the other artifacts, for example. But it took reading the survey
to understand that some people were absorbed attempting a label dating activity, some
were admiring the “good condition” of the paintings or appreciating them aesthetically,
while still others were trying to connect personally and emotionally with the portrait
subjects.
The survey data exposed several promising lines of inquiry for interviews. Perhaps speaking with visitors directly could help to tease out some of the more ambivalent experiences, where people had mixed reactions to the labels. I also hoped to get a sense of the internal process of engagement, something that is difficult to grasp adequately through observation or survey responses. I had gained some understanding of the qualities many people liked in a label, such as brevity, but I did not yet know how having these preferences met or influenced their overall experience.

**Interviews**

The shortest interview lasted fifteen minutes, and the longest forty-seven minutes, with the remaining four all in the twenty-thirty minute range. Six women participated in interviews. These volunteers were not a representative sample: all of the interviewees were more frequent museum goers than most Canadians, and two had actually worked in museums.

Table 4 summarizes the ages and museum experience of the interview participants. To maintain anonymity, all names are pseudonymous, and ages are presented in wide brackets.

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16 For example, statistics suggest that in the year 1998, less than one third of Canadians age 15 and over visited a museum (Hill Strategies, 2003). I have been unable to find more recent data, but would expect that this attendance rate has not changed drastically.
<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Museum experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maureen</td>
<td>60+</td>
<td>Visits history and science museums 1-2 times per year</td>
</tr>
<tr>
<td>Elizabeth</td>
<td>60+</td>
<td>Visits history museums up to 1-2 times per year</td>
</tr>
<tr>
<td>Marisa</td>
<td>30-59</td>
<td>Visited 50 art museums last year</td>
</tr>
<tr>
<td>Leah</td>
<td>30-59</td>
<td>Visits a wide variety of museums up to once per month</td>
</tr>
<tr>
<td>Carrie</td>
<td>18-30</td>
<td>Professional history museum experience. Visits history museums frequently.</td>
</tr>
<tr>
<td>Rose</td>
<td>30-59</td>
<td>Professional history museum experience. Visits museums frequently.</td>
</tr>
</tbody>
</table>

Table 4: Interviewee demographics

In this discussion, participants are arranged in the order they were interviewed.

**Maureen.** Maureen visits museums once or twice a year. She had visited science and history museums in the past, and shared memorable experiences that had engaged her senses. For example, when she visited a living history museum, “I just enjoyed the old houses, walking into the old houses and seeing the women cooking, and the smells and the sounds. The different furniture and everything.”

In the room, Maureen was attracted to objects that provoked her imagination. She liked looking at the portraits, and creating stories that combined the pieces in the room:

I really enjoyed the painting over the fireplace. Let’s see, this one here. I enjoyed that painting. It made me have a sense or a feeling for the people who would have been using that room at the time. I pictured him as the man of the house, you know? And her [indicates portrait of Miss Smith] probably as the woman. I put them together [laugh].

Maureen’s curiosity was sparked when she noticed something that was at once familiar and surprising, such as the fireplace pole:

It really caught my eye because I like embroidery, and I know how hard that is and the time that’s involved with it. So it really caught my eye, and I
thought, what is that? Is that some kind—at first I thought it was, you know, they had, what do you call that, that they carry things on a tray. A tray on a pole.

Although Maureen sometimes used the labels to satisfy her concrete questions about an interesting object like the fireplace pole, she also read labels hoping they would help her engage with other, less naturally appealing pieces. Reinforcing and clarifying what I had observed during the study, Maureen said she did not care for the basic labels with only a name and date. These labels did not allow her to form a connection with the object: “It’s the ones with the words on them that I like. You know, that explain what I’m looking at, otherwise I did just walk by it I guess. You know, I’d give it a glance and go mm-hm, I don’t know what that is [laugh].” Without such information, there was no opportunity to engage with the artifacts beyond aesthetic appreciation, and Maureen was primarily interested in the historical context.

Establishing a pattern that would hold true through nearly all of the interviews, Maureen raised the topic of label questions before I did. She was most enthusiastic about the Hoit label pictured below, that challenged visitors to deduce which portraits were created earlier.
Maureen described her process, which led her ultimately to a correct answer:

I found that was very interesting, these pictures here. And then trying to decide which picture was from what time period like you had asked. And then you had mentioned that the background in the later paintings they put more detail into it? So then right away I went over and I decided, oh, this lady here must have been in that period. I looked a little farther, and realized she wasn’t
one of the group of four that you had mentioned. So I had to go back and re-
choose who I had chosen. Because definitely I had chosen this gentleman
first, and then this woman here. So I went back and thought about it some
more, and had chosen the gentleman and the little girl I think it was.

Interestingly, Maureen combines two of the “clues” into one for the purposes of solving
the puzzle. Instead of looking for more detail in general, and balancing this with the
contrast between figures and background, she looked for the more detailed backgrounds,
which was an effective strategy. Maureen explained, “I loved the way it got me to think
about more than just looking at the picture. It got me to think about what was behind
things.” There was no indication on or near this label as to the correct answer. I suspected
this might frustrate visitors, but this was not the case with Maureen. She seemed
certain in her choice, and was able to confirm it by referring to the fashion timeline
label elsewhere in the room.

When looking at the label and photograph prompts, Maureen remarked on a few
things she “should have noticed” or “didn’t realize.” She attributed these lapses to some
quirk in her personality or mood, rather than the exhibit or label design. For example,
when she had difficulty remembering the pianoforte label, she recalled trying to link it
with a different artifact, a portrait. She said, “I was looking at the picture, and I was a
little confused for some reason, that was just the way I was that day. Nothing to do with
this [the label], I’m sure [laugh].” However, when I referred back to images of the
exhibit, it was clear that Maureen had identified a weakness in how I had positioned that
particular label. It was on top of the pianoforte, but also directly underneath the unlabeled
portrait. This ambiguous placement was indeed confusing.
In her visit, Maureen clearly wanted to learn, but she was flexible about what form that learning might take. Maureen found a wide variety of label types engaging, perhaps partly because she was accustomed to seeing short, factual labels. Interpretive labels that strayed from this familiar pattern tended to be engaging, whether the novelty was due to an unexpected challenge or simply a curious piece of information.

**Elizabeth.** Elizabeth, like Maureen, visits museums about once or twice a year. She is primarily interested in history, and spoke of the aesthetics and atmosphere of the Alhambra in Spain: “it was just the sheer beauty of everything and the workmanship. Everything was amazing, and so old. So very old.” In the exhibit, Elizabeth liked looking at the furniture she found most aesthetically appealing. She prefers the “plainer,” or less fussy, pieces such as the Nisbet drop-leaf table. Interestingly, however, the object that made a strong impression on her was the carved sofa, a piece that she “didn’t care for.” Even though she did not find it attractive, she imagined “the work that went into it” and was impressed with “the amount of carving and the detail.” She also approved of the suggested activity on the label (Figure 5), to look for carved leaves elsewhere in the room.
Sofa, ca. 1830

As Saint John became a major shipbuilding centre in the early 19th century, many fine craftsmen immigrated to New Brunswick. Talented woodcarvers were much in demand. Men who worked for the shipbuilders might also be hired by cabinetmakers, who liked to use carving to finish their work. This sofa is the most heavily carved piece in the room, with carving on the arms, skirt, and crest rail. Foliage motifs were common in this era; if you look closely, you will find carved leaves elsewhere in this room.

Elizabeth liked that it was not too time-consuming, but she did not attempt to find the other leaves. In addition to feeling a bit rushed that day, she felt more reserved due to the research set-up. “Probably if I were looking at it, if I were just in that room and it wasn’t for a study and it wasn’t with a little reception, you know, it would’ve been more informal, so you might’ve done things just a bit differently.”

Elizabeth did attempt the fashion timeline activity. She was one of several survey and interview participants who chose to talk about this label, which challenged visitors to date the portraits in the room using evidence such as hairstyle and clothing. An

17 To find the other carved leaves, visitors would have had to bend over and look closely at a number of artifacts. In an occupied room, a person doing so would likely have drawn attention. Anyone with physical limitations would have found this task difficult.
introductory label on the wall (Figure 2) presented the activity. The fashion timeline (Figure 6) gave examples of styles that were only popular during certain eras, and a portrait timeline affixed underneath arranged the exhibit portraits chronologically. These were placed on a ledge next to the introductory label, so that visitors might pick them up and carry them around the room as they looked at the portraits.¹⁸

![Figure 6: Label - Fashion Timeline](image)

¹⁸ Some interviewees mentioned that they did not realize they could pick the timeline up and take it around the room, or that they did not at first understand that there was a second “answer” timeline underneath the first. This suggests that my design was flawed, since I did not adequately compensate for the general taboo about touching and moving things in a history museum. If there is any uncertainty in such an environment, many visitors will not risk making a mistake.
Even though Elizabeth struggled to date certain portraits, she remembers this as her favorite label. She explained, “It wasn’t easy. But it shouldn’t be I guess.”

Like Maureen, Elizabeth was intrigued by the fireplace pole because she was not sure what it was. This stood out for her as interesting because “most things you know what the use of the article was for.” Although she read that label hoping to get a concrete answer, Elizabeth nearly always looks at museum labels. She reports that the only time she would not do so is if she was very familiar with the subject, pieces, and the historical period.

Though Elizabeth tends to always read museum labels, I do not believe she approached this exhibit with strong opinions on what labels ought to look like or contain. In many ways, her account was similar to that of Maureen. When speaking of museum elements such as the labels, she concentrated on what she enjoyed: novelty and challenges. Also like Maureen, and in contrast with the later interviewees, Elizabeth spoke about how she should behave to get the most out of an exhibit, but rarely spoke about what the museum should do to improve her visit.

**Marisa.** Marisa is an unusually frequent visitor to art museums, estimating 50 visits in the last year. She also appreciates history museums where the setting and arrangement are aesthetically pleasing, and spoke enthusiastically about architectural elements of the Fredericton Region Museum. Before going upstairs, she was delighting in the setting:

> And it’s really beautiful. It’s quite nice. It makes you feel nice. It’s just so . . . it’s like a warm palette. Like home almost? . . . I just like the visuals and the old antiques. And the structure of the building and the inside; I love old
buildings . . . It’s almost like the place you’re in is the art . . . And then the big doors are gorgeous . . . just the visuals of the doors. It’s really a nice old barracks traditional, just like beautiful. I love that about it.

Once in the exhibit space, Marisa continued to be attracted to pieces she found “stunning,” such as the tall case clock. She also relished “classic” arrangements, such as the wall with a portrait above a piano. When she is drawn in by the appearance of an artifact or arrangement, Marisa will look at the label: “just like at the Beaverbrook, if you like a thing you read it.”

Marisa found the label images aesthetically appealing, saying of the photograph of Belmont, “I think that visually this looks well,” and that the image of mahogany made the music stand label “stronger.” She did clarify that the image should “correlate” with the artifact, so the images of Belmont (Figure 7) and mahogany (Figure 8) worked because they were relevant, and not merely ornamental.
This piano resided for many years in “Belmont”, an 1820 neoclassical house in Lincoln. One famous inhabitant was father of Confederation Robert Duncan Wilmot (1809-1891).

Music was a staple form of entertainment in the 19th century. Usually, mothers would teach their children how to play. Most families could not have afforded a piano in the early colonial days, but violins and flutes were also suitable instruments for ladies.
In this account, she speaks of the pianoforte label (Figure 7) more than a week after her visit, using only a photograph of the room as a prompt:

That wall is stunning. And then the story about the girls and what expectations were, to try and draw you in, I thought that that was my favourite story. So of all the written things, I loved it more after reading that, because it gave it a little bit more thoughts. A little more depth . . . I think it talked about, I don’t know, females of the day and their expectations. You know, it would be acceptable to play this instrument. But it was just nicely
easily written, there was no negativity, it just brought me in and made me smile.

For Marisa, the value of labels seems to be in extending—rather than initiating or transforming—engagement. When she is already interested in an artifact, she seeks out more of this engaging experience (“more thoughts”/”more depth”), as opposed to seeking out a different experience entirely.

Unlike the other interviewees, Marisa did not spontaneously raise the topic of label questions, sharing her opinion only when directly asked. Marisa had a strong negative reaction to the questions, and said that they should never be included on labels. When she saw a question or implied question, she skipped over it or even stopped reading. Marisa, like all of the interviewees, preferred labels that provoked thought. However, the questions had the opposite effect on her, causing near immediate withdrawal. “Because they’re all things that, you can tell you’re in education kind of by the . . . but they’re all things on a little bit different level than to engage somebody. Like, the purpose of the museum is to kind of showcase and to engage.” What I take from this comment is that Marisa wants to learn from a museum visit, but on her own terms. The questions were too blatant a pedagogical device, and reminiscent of school.19

19 When I was designing these labels, my husband had a similar reaction, connecting the direct questions with formal education. When he visits a museum, he said, he does not want to be given assignments to complete. Clearly, designers should remember that what is a fun game for them might be another person’s tiresome slog.
Marisa was interested in stories that “complement” the pieces, adding to the engaging experience she was already having. Her strong aversion to label questions and activities, I infer, was due to the fact that they interrupted her pleasant state of contemplative admiration. Instead of supporting the way she wished to relate to the artifacts, questions and activities tried to impose a more analytical approach that conflicted with her motivations for a museum visit.

Likely in keeping with her extensive experience in art museums and photography, Marisa gave suggestions for improving the lighting in the room. She believed upgraded lighting could “serve” the walls, floors, and artifacts better, creating a more “high end” feel.

Leah. Leah visits an eclectic mix of museums, with multiple yearly visits. She likes to visit when she travels, and mentioned the value of museums in “getting a sense of the history” of a place or a culture. Although she does not visit museums on a monthly basis in New Brunswick, she will go when there are special exhibits that are of interest. She had been to the Fredericton Region Museum for this reason only one month previous.

Leah was game to tackle any challenge, and responded to label questions with energy and enthusiasm. She put sustained effort into a number of activities, and reflected deeply on historical continuity and change. This is evident in the following passage, in which Leah recalls her thought process about the mahogany tall case clock label (Figure 9) over a week after her visit.
Mahogany Tall Case Clock, ca. 1840

Tall case clocks were an expensive luxury in the colonial era. Displaying an item such as this in your drawing room would be one way of showing your wealth and importance. In 21st century New Brunswick, which objects fulfill the same role?

Leah: [T]he questions on the labels I found were really engaging. That’s what made me . . . like, questions such as what in houses today show a sign of wealth, right? So I was trying to think of what would people have in their houses to show wealth, but it would all depend on the person.

Alex: Mm-hmm. Very much so.

Leah: You know, because somebody would have a strong interest in collecting, and paying money for and displaying. You know, cars, six motorcycles and all those kind of things. It might be totally different for somebody who would collect fine crystal. You could make up quite a list of things that people would . . . to show their signs of wealth.

Alex: Electronics.
Leah: Exactly! But then, the one I thought was property. And houses.

Alex: Okay, the house itself.

Leah: Yeah. And when you think of Fredericton, that’s exactly what would have been similar to now. The historic houses in Fredericton are all the great big huge ones, you know, that are downtown. Other people who would have been not as wealthy would have had much smaller houses. So it was interesting how some things stay the same.

Alex: There’s definitely some continuity.

Leah: Yeah! And maybe even in terms of cars. Somebody might have a BMW, but then somebody might have had horses that were purebred, you know. Or ornate carriages, I don’t know. It was interesting. I was trying to figure out what would be . . . it would just be the actual particular things, not maybe the generic . . . look at the two things. For example, houses and houses, certainly houses today would be different from the wealthy houses of long ago. But mode of transportation is still the generic thing that shows wealth. Just the particulars are different.

As was the case with Elizabeth, questions helped Leah to remember the object and the label. She explained, “when you just have information, I read it and I internalize it, but I don’t engage with it or maybe remember it as much as if I have questions that make me think about it a little bit further.”

For the fashion timeline label, the question “How can we tell when a portrait was painted?” stimulated Leah’s curiosity. This title motivated her to read the label, since
“That makes you think, oh, I don’t know! Or, maybe you think, oh yes I do, and you want to see if this confirms it or not.” Leah relates how the activity then prolonged her engagement, and caused her to “go back and forth” looking at elements such as the skirts and sleeves. This extra attention provoked empathetic and critical reflections on the lives of the women in the portraits: “How inconvenient would mutton sleeves be if you had to work? Obviously these ladies did not work, or they would not be wearing these sleeves. It would be hard to serve a cup of tea in one of those.”

Leah also spoke animatedly about the A.G. Hoit label (Figure 4). She actually preferred that there was no answer provided for this question; if the answer was given, she reported, this would reduce her motivation to actually engage with the activity:

Leah: Oh, I think they would just carry on if the answer had been there. I would have. Because if somebody gives me the answer, well what the heck, I don’t need to check. You know. Unless I disagreed with it . . . But I think you need time to formulate your own answer. And again, that made you engage in every one of those pictures again. Because that’s when I went back and started again. I looked at the picture, and I tried to look at the background and see how much, you know, a lighter background was behind the portrait of the person, to see which one. So I had to go back and really examine—in fact, there was another person there, and we talked about it together.

Alex: Oh you did!
Leah: So it also . . . and I didn’t know her. So if you’re standing there and both doing the same thing, and there’s a question that kind of unifies you, there’s more opportunity to socialize.

Alex: That’s interesting.

Leah: Both of us were going, ah, well [laugh]. And I had never met her before.

This type of interaction between strangers in a museum is, I suspect, rare. As Leah indicates, perhaps for certain visitors label questions can be a welcome ice breaker, giving strangers or even acquaintances an opportunity for purposeful exchange.

Like Marisa, Leah volunteered that she was bothered by the short, low-information labels: “I started to look for other information but couldn’t find any. So it was just the label, and that was fine, gave its name, but that really for me wasn’t sufficient. I was looking for something else to tell about the chair.” Because she already felt affectively engaged by the exhibit object, Leah wished to extend or deepen her engagement by reading the label, and the meager content left her unfulfilled.

Beyond the title, Leah believes that the first sentences of a label are key for engaging visitors. She prefers labels “with a bit of story,” as opposed ones that begin with “a lot of factual kinds of things” such as the material and dimensions. However, she acknowledges that “a lot of people depending on their personality might like to know what it’s made of.” Indeed, this is borne out by the survey results.

I believe Leah’s fondness for label questions stems at least partly from her desire to connect personally with the exhibit objects. Several times, she related how a piece of work reminded her of a family member, or empathized with how difficult it would be to
create or wear particular items. She regretted that she was not able to play the piano, or hear the case clock strike, imagining its “deep, rich” sound. Seeking interaction with the display objects, Leah appreciated any label content that helped facilitate that goal.

**Carrie.** Carrie has professional experience in a history museum, interacting directly with the public. She visits museums as often as she can, particularly while traveling. Although she enjoys various types of museums, history is her passion. When asked about a memorable museum experience, Carrie spoke about seeing the immense whale skeleton suspended from the ceiling at the New Brunswick Museum in Saint John. In addition to being awed by the sheer size, she appreciates the substantial time and effort that would be required to put on such a dramatic display.

During the interview, Carrie frequently distinguished between what she found engaging, and what others in the museum audience might find engaging. As an example, she was drawn in by lines about Thomas Nisbet the man: “It’s no longer just a chair, it’s this chair that someone put their time, money, and effort in to make and craft.” However, she believed that children and teens are less likely to identify with such information, and talked about the label design difficulty of finding a “happy medium.”

Carrie did not care for the label questions, preferring to “look at an object, come up with my questions, and then I usually read the thing to see if my questions are answered.” Like Marisa, she favors traditional titles that immediately identify the object. However, based on professional experience in history museums, she thought that others would appreciate label diversity, since “with the museum setting it’s very difficult to know who your audience is going to be.” Carrie suggested that novices, for instance, might be more likely to appreciate label questions.
Throughout the interview, Carrie continued to assume multiple perspectives, both visitor and institutional. Although she did share her personal response to the design elements, this was invariably balanced with other considerations; for example, she discussed issues such as budgets, artifact preservation, and exhibit layout. Carrie also noted the importance of bilingual labels in this province (mine were in English only).

When speaking about label images, Carrie was particularly interested in how they could contribute to visitor understanding of the objects and their context. She appreciated the image of mahogany on the music stand label (Figure 8), saying she found it “very useful.” Being only somewhat familiar with different types of wood, without that visual guide she would have found it “difficult” to look for mahogany in the pieces in the room. Carrie also focused on the images in the introductory label posted at the room entrance (Figure 10), and how they contributed to historical understanding.
Carrie remarked that, since drawing rooms are so uncommon today, the visuals (in Figure 10) would help visitors “see different styles,” and see other examples of the pieces that might be found in such a room. She noted “that’s very important for people that don’t know what a room like that would even look like. My generation, I wouldn’t have that information. We don’t know what a drawing room is.”
Like many survey and interview participants, Carrie mentioned that she was sometimes reluctant to read lengthy labels. However, she was appreciative of longer labels when the artifact itself caught her attention. For example, she found the pole screen “excessively interesting,” and this affective engagement meant she would have felt “disappointed” with a short label. Instead, since the label “had a good chunk of information with it, I was very satisfied when I was done looking at it.”

The only participants who commented on the font and textual layout of the labels were Carrie and Rose (the two interviewees who have worked in museums). Carrie found them easily legible, which was appreciated. “When I come into museums I don’t expect there to be good labels, and when there are it’s always a pleasant surprise.” Perhaps these design elements stood out in contrast to the one “do not touch” label on a couch that Carrie found disconcerting:

But it was just really small, really low, the font was very chunky and hard to read. Out of my whole experience, I think that was the only thing that stuck out as a negative to me. Because you’re trying to portray the information, but that’s just not happening because you can’t read the information. Especially for people that may not be native English speakers, or learning English. If it’s so chunked together, then it’s really difficult to see.

Interestingly, in her one negative experience, Carrie mentions concern for other visitors. Just as Marisa’s experience in art museums conditioned her to notice the lighting, Carrie’s experience working in a history museum influenced what elements she attended to, often aspects of the exhibit that were more or less invisible to others.
**Rose.** Rose has extensive professional museum experience, including curation. She visits history museums frequently, since heritage is “the way I connect with a new community.” When speaking about memorable museum experiences, Rose vividly described the “emotional wrench” she felt during a recent visit at a national museum. Although she was impressed and excited by the exhibit design, she was at the same time skeptical of and troubled by the underlying message. In this recollection, it seems that her prior knowledge positioned her to critically evaluate not only the museum’s design, but its agenda.

Rose’s first reaction to the 19th-century drawing room exhibit was confusion. She was searching for clues as to what this exhibit was about, and did not find answers in the introductory label (Figure 10). In contrast to Carrie, Rose felt there was no connection between the photographs of King’s Landing and the exhibit room. She found these introductory images misleading, leaving her dissatisfied with the experience:

See, the exhibit told me that it was going to be an assembled, pre-Confederation drawing room, and it didn’t even look like a lived-in room, so it already failed as far as I was concerned, because it hadn’t lived up to this expectation. Now this [pointing to picture of King’s Landing] does feel like a pre-Confederation drawing room, and it’s a living space. What I was seeing in front of me wasn’t a living space.

Rose was not opposed to label visuals, and indicated several other images that she found helpful, such as the picture of Belmont (Figure 7). Her reaction was entirely based on the relevance of the King’s Landing images. The pictures seemed unrelated to the exhibit, so she became distracted and bothered trying to establish the connection.
Partly due to the discrepancy between the King’s Landing images and the exhibit room, Rose “didn’t understand what the message was.” Rose expected to identify the big idea or “logic” that tied these pieces together in a more profound way, and was frustrated when her expectations were not met. With this problem in mind, Rose was continually thinking of solutions, including making the fashion timeline the focal point of the room. She would like to have seen a theme of “People over time. Yeah, dating, and people over time. And how fashions have changed over time. Fashions in the clothing, fashions in the furniture, and how they’ve changed over time. Because I liked this indicating the timeline, but I wasn’t getting this message from the exhibit.”

Voicing the prevailing sentiment of both survey and interview participants, Rose said, “I don’t spend time standing and reading things unless I think it’s worth my while.” One factor significant to this calculation is label length. Rose, along with a few other visitors, pointed to the 1830 Sofa Label (Figure 5) as an example of a long, reading-intensive label: “if I want to read the book, I’ll stay home and read the book.” Several physically larger labels with more words were included in the exhibit, but these other labels were all divided into at least two paragraphs, and typically included images as well.

Another influential factor in label reading, for Rose and most other participants, is the title. Like Leah, Rose was intrigued by questions. The label titled “Was this music stand made in New Brunswick?” (Figure 8) made her curious about “a question that hadn’t occurred to me.” Beyond the title, Rose (again like Leah) noted the importance of the first few lines. If the first sentence or two fails to grab their interest, most visitors will stop reading. This happened to Rose with the Nisbet label (Figure 11).
Thomas Nisbet

Thomas Nisbet, NB’s most famous cabinetmaker, moved to Saint John from Scotland in 1813. There are two Nisbet pieces in this room: this drop-leaf table (ca. 1824), and the armchair to the right (ca. 1835). Both pieces have a Nisbet label attached. This helps us to estimate the date, since Nisbet’s labels changed over time. In 1834, Nisbet added “& son” to his labels; this is how we know the armchair was created after the table.

Without labels, it takes years of expertise to accurately date furniture. Information on the provenance of a piece (its history of ownership) is very helpful. For example, this table was purchased by the J.J. Fraser Winslow family in 1897, when the contents of Government House were sold. Given this provenance, the table is believed to be part of an extensive set of furniture ordered by Government House in 1824, in preparation for the arrival of Sir Howard Douglas (the new Lieutenant Governor).

Figure 11: Label - Nisbet

Rose recounted her reaction upon first seeing this label:

It was on my left. I was looking for something on my left. And I know that piece. And so then I looked at the label that was with it here, and because I know the piece, my first reaction is, are they going to point out the label that’s in the right hand drawer. The Thomas Nisbet label, that identifies it as a Nisbet piece. No, they’re not [laugh]. So then I moved on . . . So I guess what
it is, in this context, I didn’t want to read who Thomas Nisbet was. I wanted to find out about that piece.

Drawing on her familiarity with this piece in particular and her academic background, Rose identified the label affixed in the drawer by the furniture-maker as “the most relevant aspect of that artifact” since it was “extremely rare, that a piece of furniture still be labeled.” Because of this expertise, she had definite ideas about not only the content of the interpretive label, but its sequence. When Rose did not see what she expected and wanted to see at the beginning of the label, she lost interest in reading further. I suspect that Rose correctly deduced that I was an amateur who knew less about 19th-century furniture and this particular piece than she herself did. Given how the interpretive label began, Rose assumed the entire thing was going to be a dull essay on Thomas Nisbet the man. For her, this is “secondary information” that should appear near the end of the interpretive label, not at the beginning.

Rose experienced “label overload” in the room, mainly because the labels were “all the same.” The size of the font and the background paper were identical in all the labels, and when Rose visits a museum she expects to see “a variety of levels.” Rather than removing any information, she would alter the presentation, making use of text features such as large script painted on the wall.

Usually how exhibits are designed is there’s layers of information, right?

There’s levels of information. So the big message is right when you first come into the space. The big overall theme is in the space, here. The third level of information would be large font that you can quickly scan. So if you were in a hurry, you could walk around the room and just look at the large
font, boom I got it, there. I’ve learned enough. Then there’s another level, where it’s giving you details about the object. And another level where they’re giving you secondary information about the context. The trick is in the design of presenting that, not all in the same. So not in the same style of font, size of font, not all on the one piece of paper, and not scattered about the room willy nilly.

Whereas Carrie was pleasantly surprised by features of the individual labels that surpassed her expectations (such as legibility and variety of content), Rose was frustrated when her big picture expectations were not met.

**Cross-Analysis**

Based on the above visitor accounts, labels had a significant effect on visitor engagement. Numerous visitors mentioned that the labels deepened their appreciation of and thoughts about the artifacts. I observed that most visitors spent comparatively little time with unlabeled or minimally labeled artifacts, and this was confirmed and clarified by the survey and interview data. Participants explained that labels can help them connect with exhibit objects in diverse ways, saying that labels intrigued them by posing questions, presenting surprising information, or contextualizing the object. Sometimes visitors were already engaged by the artifacts, and looked to the labels to extend or enrich their experience, while at other times visitors hoped the labels would help them to engage with an object they did not find intrinsically interesting.
Although labels mattered to the participants, nearly all suggested they read labels selectively. Some people explained that they read if they deem it “worth their time,” and visitors who did not find the labels engaging stopped reading.

Four elements of label design were broached frequently and/or vehemently by study participants: length, images, sequencing, and questions. Collectively, their survey and interview responses support the following general principles of engaging label design:

1) Labels should be short enough to read easily, but not so short that they lack stimulating content.

2) Images on labels can be helpful if they are carefully chosen and relevant to the exhibit.

3) The most important information should be presented first, or visitors will lose interest.

4) Labels should provoke thought and/or reflection.

However, the difficulty comes in the specifics. In the interviews, it became clear that visitors have distinct and sometimes contradictory interpretations of what is stimulating, relevant, important, and thought-provoking.

1. **Label length.** Multiple participants indicated that they prefer short and punchy labels, that, as one survey respondent put it, “aren’t too long and that are in depth as well.” Some people said that they decide whether or not to read a label based on its length. A few pointed to the 1830 Sofa label (Figure 5) as an example of one that is too
reading intensive. Many of the other exhibit labels contained more words, but these longer labels were broken into two or more paragraphs.

Interestingly, of the three labels that participants singled out as their favorite, all were over 60 words. Visitors were willing and eager to read longer labels if they found the content appealing. However, along with their different assessments of which labels are too long, participants had divergent opinions on which content is stimulating. For example, both Maureen and Leah reported engagement with the A.G. Hoit label (Figure 4), which had over 100 words. Maureen and Leah enjoyed labels with activities and questions, and the Hoit label fit this criteria. It is likely that other visitors who did not enjoy labels with activities would be particularly dissuaded by the length of the Hoit label.

2. **Label images.** Study participants tended to approve of label images, as articulated by this survey respondent: “The labels I found most interesting were the ones which included pictures or photos.” However, interviewees clarified that such images should be carefully chosen. Everyone who spoke about images believed they should be relevant to the exhibit, but there was strong disagreement about which images were relevant, particularly between interviewees Carrie and Rose. Looking at the same images, one found them helpful, and the other found them distractingly inappropriate.

3. **Label sequence and content.** Although sequence and content could be two separate categories, participants usually discussed them concurrently. When commenting on content, for example, participants typically discussed what they like to see near the beginning of a label. There was general agreement that the most important material
should be presented first. However, visitors had idiosyncratic criteria for determining importance.

It was clear that participants sought specific things when they read a label, including:

- Information on the object and the person who owned it. “People want to know both, not just one.”
- “[E]xplanation as well as an activity to get engaged.”
- “[I]nformation on the artifact, the owner and the context of that period.”
- “[T]he best labels have information about the creation of the item, its history and occasionally the history surrounding it.”
- “[D]etailed description” of the materials and functionality of the artifact.

There are a number of recurring elements in these survey responses, but this does not mean they are simple to interpret. For example, the interviews made it clear that, even if many visitors are interested in the owner of the piece, for some this might mean they want to see a brief mention of their name and accomplishments, for others it might be a story about how they acquired the piece or some charming story unrelated to the artifact, while still others are curious about the provenance and the different owners through time. This problem is compounded since visitors may well be engaged by different types of content depending on the specific owner.

Even if everyone’s preferences could somehow be satisfied on one label, visitors typically want to see the information they consider most important immediately. Several participants said they will stop reading if they are not engaged by the first few sentences, as happened to Rose with the Nisbet label. Many make their decisions to read based on the title alone. Several participants reported that they were engaged by labels with questions in the title. A few people, though, felt annoyed by such titles.
4. Labels that provoke thought. Nearly every time survey or interview participants used the word “engage,” it was in reference to label questions or activities. The visitors who took part in this study seemed to associate engagement with labels that require their active participation. In almost all cases, interviewees raised the topic of label questions before I did, also suggesting the questions were particularly memorable. Most approved of label questions because they provoked curiosity and thought.

However, this view was not universal, and Marisa had a strong negative reaction to this label technique because “It didn’t purpose to thought provoke. But just telling a bit of information in a way that you wouldn’t have thought, or something you can relate to, that thought provokes.” Marisa, based on the label questions, immediately classified me as a teacher. She regarded the question approach as antithetical to the work of a museum designer, whose job is about “presentation” more than education. Marisa became disengaged when she felt tested, since she prefers contemplative museum experiences.

The visitors who were engaged by label questions seemed willing to tolerate or even relish uncertainty and complexity. The Hoit label (Figure 4) challenged visitors to classify four of Hoit’s paintings as belonging to his earlier or later period. There was no indication on or near this label as to the correct answer. I suspected this would frustrate visitors, but this was not the case with Maureen or Leah, the two people who spoke about the label. Leah actually preferred that no answer was provided. Although the fashion timeline label did include the answer, I was concerned about the difficulty of the task. Even after doing the research and constructing the timeline, I found some of the paintings of men in particular tricky to date. However, Elizabeth explained, “It wasn’t easy. But it shouldn’t be I guess.”
Although most participants found the label questions stimulating, the intensity of Marisa’s feelings cannot be dismissed. Some of those in favor of questions said that they liked that only some of the labels had these elements, since having them on every label would dilute the impact. However, this seeming compromise did not satisfy those who would prefer no questions at all.

**Label expectations.** Though most visitors were able to agree on general principles, when these beliefs were probed in the interviews, it became clear that the seeming consensus was illusory. Visitors had quite different expectations of what these principles should look like in practice. There seems to be a link between expectations and engagement, whereby labels that fall too far outside these expectations can cause confusion, frustration, and disengagement. In this study, the type and level of museum expertise (as a visitor or professional) seemed to dramatically affect what visitors expected to find in a museum label, and thus their process of engagement and disengagement.

In this study, those with firmer expectations, often developed through years of leisure and/or professional museum experience, were more likely to become disengaged when labels did not match their understanding of what a museum label ought to be. A strong example occurred when Rose’s expertise caused her to notice and become deeply distracted by the lack of a unifying message in the exhibit text. She was the only
participant who responded this way. For the visitors without museum design experience, a theme of objects that could be found in a 19th-century drawing room made sense.  

Marisa, the art museum devotee had distinct preferences to the other visitors, but the two interviewees with professional history museum experience, Carrie and Rose, also held contrasting opinions, perhaps partially due to their dissimilar museum roles. In this group of volunteers, the most experienced people were far more apt to use words like “should” in relation to design (the museum should do x). In contrast, less experienced people were more likely to question their own behavior (I should have done/noticed x).

Summary

This research examined the ways that exhibit labels influenced the process of engagement at a local history museum. I designed new labels for an existing exhibit. Volunteers were invited to visit and share their experience in a post-visit survey and interviews. Going in, I anticipated that people would interact with my labels in distinctly personal ways. Although this was the case, in many ways the character and intensity of the responses surprised me. Cross-analysis of the data reveals three key insights: 1) Labels significantly influence visitor engagement; 2) No one label will please all visitors;

20 Of course, I cannot discount the possibility that others became frustrated trying to determine the “big idea” of the exhibit, but chose not to share this experience with me. Perhaps I could have arranged the study to minimize this concern, by concealing the fact that I had written the labels, and/or asking someone else to conduct the interviews.
3) Interviews revealed far more variation in visitor experience than was evident in the observation or survey data. Implications of these findings will follow in the next chapter.
Chapter Five: Discussion and Conclusion

This study considered how exhibit labels might influence the process of engagement in a history museum. As described in the previous chapter, three key findings came out of this research: 1) Labels significantly influence visitor engagement; 2) No one label will please all visitors; 3) Interviews revealed far more variation in visitor experience than was evident in the observation or survey data. Three implications of these findings will be explored in this chapter: 1) Labels matter; 2) Designers cannot expect to create universally appealing labels; 3) In doing this kind of research, observation is inadequate; researchers also need to interact with visitors.

Labels Matter

On the basis of my research, I can state confidently that labels matter. Much of the label research discussed in the literature review considers questions such as whether people read the labels, and what they can remember of label content. What is sometimes overlooked is why any of this matters. People do not attend museums to read, as they could do that far more efficiently at home. They attend museums for an engaging object-based experience, and labels matter to the extent that they shape this experience. The results suggest that labels can influence visitor engagement by initiating, extending, transforming, interrupting, or severing connections with display objects.

Initiating and extending connections. This research supports Bitgood and Patterson’s (1993) finding that labels, rather than distracting visitors, help them to focus on display objects. As demonstrated in this study, labels are capable of stimulating interest in and attention to objects that had previously gone unnoticed, satisfying existing
visitor curiosity about objects while raising new questions, and encouraging attention to details of an already fascinating object. Labels can also help visitors to connect individual display objects with other items in the museum, or with their own lives. These results suggest that labels can provoke and nurture not only engagement, but mindfulness, a state that Moscardo (1996) describes whereby visitors are “active, interested, questioning and capable of reassessing the way they view the world” (p. 382).

**Transforming connections.** Although it is not explicitly articulated in the literature, transforming visitor connections with display objects is an implicit goal for many museum researchers. Several studies grew out of an observation that visitors were leaving exhibits with misconceptions, or different and shallower learnings than the museum intended. For example, when Atkins et al. (2009) designed original interpretive labels for a heat camera exhibit, they hoped visitors would begin exploring the relationship between clothing and warmth with a new understanding that “gloves warm hands by insulating them, not by directly heating them” (p. 164).\(^{21}\) Like that of Atkins et al., this study indicates that labels can dramatically change the way visitors connect with display objects. Of particular note is the way in which labels can transform the character of visitor engagement. As one example, affectively engaged visitors can indeed become intellectually engaged while reading a label.

\(^{21}\) This attempt to correct a common misconception was successful, but what the researchers found more interesting were the unintended consequences of the redesign. Their new, directive label caused visitors to converse and behave as if they were in a more formal education setting, reducing creativity and play.
Something that is rarely addressed in the research (Atkins et al. a notable exception) is the harmful consequences that result when museum designers try to change the way visitors connect with display objects. The literature frequently reports whether or not label interventions had their expected results, and to what extent. However, few studies explore unanticipated outcomes, and fewer still attend closely to individual visitor responses that are unanticipated and atypical in the participant group. This study enhances our appreciation for the way that labels transform understanding by demonstrating that some visitors will withdraw when they perceive an attempt to change the way they engage with display objects, feeling disappointment or even resentment when their preferred way of connecting is not supported. Depending on perspective, a designer might be trying to help the visitor look at objects in a different way, or trying to fix some defect in the way the visitor looks. One interpretation engages, while the other disengages. The fact that this research captured the second perspective—one that should be of great concern to museum designers—argues for the value of qualitative approaches in museum research. It further suggests the need for flexible research questions that enable the exploration of unanticipated outcomes and minority responses.

**Interrupting and severing connections.** This research suggests that labels matter not only because they can positively engage visitors, but also because they can disengage visitors to the extent that their museum experience becomes frustrating and unpleasant. A few visitors in this study who were already in a mindful, connected state became disengaged when the labels did not meet their expectations. When they noticed deficiencies in the individual labels, or were struggling to make sense of the overall interpretation, this bothered them to such an extent that it interrupted or overrode their
engagement with display objects. This is not to suggest that the labels caused such visitors to become mindless in any way; rather, the visitors transferred their mindfulness away from the display objects to the question of what was happening with the interpretive text. This does not suggest that labels should be removed but that their design matters.

**Summary.** When visitors do not find the labels engaging, they stop reading. If most visitors do not read labels, which is an often repeated axiom in the museum literature, this is not because labels do not matter. It is because the labels they are currently seeing, or that they expect to see based on past experiences, fail to meet their needs. Given the role of labels in creating and enhancing visitor connections with display objects, engaging label design is a vital consideration for any museum.

Although there is a buzz around interactive high technology in museums, perhaps because it seems more fresh and exciting than printed labels, it is a misconception that these measures are necessary to engage visitors. Label innovation is one way to support visitor engagement without incurring major expense. This is an important finding for small history museums with limited budgets.

**Designers Cannot Expect to Create Universally Appealing Labels**

This study demonstrates that the label design advice outlined in the literature review is largely reliable, in that most visitors agree with the general principles. For example, they do prefer labels that seem shorter. However, *executing* the advice is far more subjective than many experts acknowledge. In most cases, the problem arises when advice is presented as clear and prescriptive, but is in reality vague. For example, to
recap, most study participants agreed on these principles of engaging label design, each of which receive support in the literature review:

1) Labels should be short enough to read easily, but not so short that they lack stimulating content.
2) Images on labels can be helpful if they are carefully chosen and relevant to the exhibit.
3) The most important information should be presented first, or visitors will lose interest.
4) Labels should provoke thought and/or reflection.

The difficulty comes in the specifics: like designers, visitors have distinct and sometimes contradictory interpretations of what is stimulating, relevant, important, and thought-provoking.

Of course, some strands of museum research both acknowledge and embrace that visitors are not a homogenous group. Academics from the visitor studies realm in particular, who touch on the subject of labels, often speak of the need for design that addresses diverse motivations. Falk and Dierking (2013), for example, argue that “designing exhibitions and programs that are open-ended, allowing for multiple entry points and different outcomes, is critical” (p. 63). Many have expressed a similar sentiment, but it is far vaguer still than the four principles of engaging label design discussed above. Nebulous philosophical statements regarding designing for visitor difference are of questionable practical use to designers. Researchers who concentrate specifically on label design, in contrast, often seek to develop universal standards based on what the majority of visitors find appealing. Bitgood, for example, bases his recommendations on statistically demonstrated links between label interventions and overall visitor outcomes. The particular experiences of visitors, and atypical experiences, are often neglected in such label research. Moreover, as discussed, when viewed through
the lens of visitor difference some ostensibly specific guidelines are vaguer than they seem. This research draws upon and connects with both approaches to the study of museum labels; the results show the value of guidelines as well as their limitations.

**Revisiting the “specific” label design principles.** My research supports the contention that chunking labels lowers the perceived workload to read them (Bitgood, 2002), and visitors are more willing to give a label a chance when it appears to be concise (Bitgood, 2013, p. 102). This confirmation seems particularly relevant for those visitors who are only minimally engaged by the exhibit objects; if shorter or shorter-seeming labels encourage such visitors to read, this increases the chances they will be able to connect with artifacts through the label content. However, this study also indicates that visitors who are highly engaged by the artifact or label content have different preferences. For such visitors, Serrell’s (1996) recommendation of limiting labels to no more than 50 words is too strict; they favored more substantial labels.

This research supports Jensen’s (2006) assertion that vivid color photographs can attract visitors to signage, though this initial attraction can backfire if the visitor does not find the images relevant.

This research supports Litwak’s (1996) idea that labels with questions in the title are motivating for most visitors, Jones’ (1999) claim that questions increase visitor interaction with the exhibit, and Bitgood’s (2002) and Screven’s (1992) recommendations to provoke visitors with challenges. However, some minority of people agree with Serrell (1996) that questions are gimmicky. Visitors who are engaged by label questions seem willing to tolerate more uncertainty than the literature suggests. For example, though Perry warns that omitting the answer to a label question frustrates
visitors (2012, pp. 126-127), my research indicates that some visitors prefer not having an answer available.

Perry’s assertion that, “Visitors expect and want to be challenged . . . Although they want to be able to succeed, they don’t want things to be boring or too easy” (1993, p. 45) is somewhat supported by this study. However, though most participants enjoyed tackling achievable challenges, the few who did not revealed substantial unease with such techniques.

**Label expectations.** A unique finding of this research is the extent to which identity factors strongly shaped each individual’s understanding of what the label design principles should look like in practice. Based on the existing literature (for example, Doering & Pekarik, 1996), I believed visitors’ prior knowledge would substantially affect their experience in the exhibit. I assumed that subject-matter expertise would be a major factor in participants’ engagement, as was the case in Smith and Wolf’s (1996) research. In their study, knowledge of art was the best predictor of how visitors behaved in the museum; those with expertise in art history had “definite plans” for their visit, whereas the bulk of visitors, who were less knowledgeable, were “more open to the influence of the Museum” (p. 237). However, it turned out that institutional expertise was a much more significant factor than subject-matter expertise in my study. Those with extensive museum experience, whether in history or non-history museums, were less open to the influence of the museum, and more likely to have formed firm expectations of what a label should be. The particular character of these expectations seem to be related to the amount and type of museum expertise. This study reveals a link between expectations and engagement, whereby labels that fall too far outside visitor expectations can cause
confusion, frustration, and disengagement. I contend that there is a need for further research that explores: 1) how the type and depth of a visitor’s museum experience influences their expectations; and 2) how meeting or disrupting these expectations affects the process of engagement.

Summary. At the close of this study, I see the label design advice as remarkably, even frustratingly, subjective. The guidelines provide an excellent starting point, but adhering to the advice will not necessarily produce an effective label, and will absolutely not produce a label that is effective for all visitors. These results reinforce the conclusion that universally engaging label design is unattainable. Visitors’ diverse needs cannot be reduced to a set of guidelines intended to satisfy a homogenous (but ultimately non-existent) body of people.

Researchers Need to Interact With Visitors

The results of this study support my argument that observing behavior is insufficient in this type of research. This study also indicates that surveys may fail to capture important aspects of visitor experience, in particular the unanticipated effects of labels. To recap, observing the exhibit, all visitors appeared thoughtful and behaviorally engaged. Every survey participant stated that they were interested nearly all of the time, seldom bored or frustrated, and read most of the words on the labels. Working with this information alone, it might have seemed reasonable to assume that visitors were highly satisfied with and engaged by the labels. However, when balanced against the interview data, where participants spoke in their own words about their experience, a different picture emerges. The disparity suggests that it is difficult to get a sense of complex
internal experiences in a survey, even with open response questions. It also reinforces the inadequacy of observation for understanding internal experiences, since in this study I failed to distinguish between visitors who were attending carefully to labels because they were confused, and visitors who were doing the same because they were engaged.

Of the three methods of data collection used, interviews provided by far the most insight into visitor diversity. Interviewing was the only method that gave a sense of how and when visitors became disengaged, and was likewise the only method that helped me to comprehend how patterns of engagement might evolve over the course of a visit. The observation and survey results indicated what worked in the label design, but interviews revealed how and why certain design choices did or did not work for particular visitors.

I am not suggesting that interviews are the best way to do label engagement research, or that observation and surveys are ineffectual. Indeed, analysis of the observation and survey data was invaluable, since it prompted me to add specific, relevant questions to the interview script, which resulted in richer conversations with the participants. There is a role for methods in which researchers track visitor behavior and interpret the visitor experience. However, a methodology that looks only at behavior is inadequate. This research demonstrates the importance of interacting with people.

I argue that observation and survey methods need to be balanced with methods that gather visitors’ in-depth perspectives on their own experiences. Future label engagement research might combine listening in on visitor conversations with post-visit interviews. Visitors could be asked, for example, what they were thinking and feeling during these conversations, and how labels influenced their communication. However, interviews are only one of many possibilities. Another I find intriguing is asking visitors
to think aloud while they experience an exhibit, recording their moment-by-moment thoughts on handheld audio devices (see, for example, Korn, 1992).

While speaking about researchers interacting with people, I should also discuss the potential for museum collaborations with outsiders. Those outside of the museum community, including educators, historians, and social scientists, can bring new questions and insights to the research side of the equation. What is perhaps more exciting, though, is the ways that knowledgeable people from diverse backgrounds could breathe new life into museum interpretation. For an exhibit such as the 19th-century drawing room, I am intrigued by what artists or woodworkers might contribute to labels.

**Conclusion**

Museum labels influence what people pay attention to, what they remember, what they are feeling and thinking. They can stir visitors to see and care about what would otherwise go unnoticed. Alternatively, they can make visitors feel uncomfortable, confused, or unwelcome, “subtly communicat[ing] to visitors that this topic is complicated, difficult, or for someone else” (Perry, 2012, p. 65). Even as museums are experimenting with virtual reality and other sophisticated technologies, the simple device of a label should not be overlooked—because few museum visitors will overlook it.
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Bibliography

http://www.vam.ac.uk/vastatic/acrobat_pdf/research/adams_moussouri.pdf


Appendix A: Visitor Survey

1. Please check the appropriate box.

a) Have you been to the museum before? □ No □ 1-2 times □ 3+ times

b) What is your age group? □ 18-24 □ 40-54 □ 70-84
□ 25-39 □ 55-69 □ 85+

2. Please circle the number along the continuum that best reflects your experience.

a) I felt interested ...
Never 0 1 2 3 4 5 6 7 8 9 10

b) I felt challenged...
Never 0 1 2 3 4 5 6 7 8 9 10

c) I felt bored ...
Never 0 1 2 3 4 5 6 7 8 9 10

d) I felt frustrated ...
Never 0 1 2 3 4 5 6 7 8 9 10

e) I read ...
No part of any label 0 1 2 3 4 5 6 7 8 9 10

Every word on every label
3. *Please answer in your own words.*

a) Can you expand on any of the above answers? (For example: What did you find challenging? What makes you decide to read a label?)

b) Was there one item in the exhibit that stood out for you? Which one? Why?

c) Which do you tend to look at first: an artifact or its label? Why?

d) Of the four labels on the next page, which do you think most people would prefer? Why?
Label 1:

| Late Regency Rosewood Davenport Desk, ca. 1830-1840 |
|

Label 2:

<table>
<thead>
<tr>
<th>Late Regency Rosewood Davenport Desk, ca. 1830-1840</th>
</tr>
</thead>
<tbody>
<tr>
<td>The original owner of this desk was Bishop John Medley, the first Lord Bishop of Fredericton from 1845 through 1892. This desk is rosewood veneer over mahogany. The desk top is green tooled leather, and the hardware is gilt brass. There are three active sliding drawers and a sliding flat surface one side with matching faux drawers and slide on the other. The top portion moves forward to provide the writer space for their feet and retracts to create more floor space when not in use. Height: 90 cm. Width: 47.5 cm. Depth: 52.5 cm.</td>
</tr>
</tbody>
</table>

Label 3:

<table>
<thead>
<tr>
<th>Late Regency Rosewood Davenport Desk, ca. 1830-1840</th>
</tr>
</thead>
<tbody>
<tr>
<td>The original owner of this desk was Bishop John Medley, the first Lord Bishop of Fredericton from 1845 through 1892. Rosewood is a beautiful hardwood that is extremely dense. It is even heavier and more difficult to work with than mahogany. It is easy to confuse these two similar-looking woods, but one trick will help you tell the difference: rosewood has fine black or white rings. Can you find another piece of rosewood furniture in this room?</td>
</tr>
</tbody>
</table>

Label 4:

<table>
<thead>
<tr>
<th>Late Regency Rosewood Davenport Desk, ca. 1830-1840</th>
</tr>
</thead>
<tbody>
<tr>
<td>The original owner of this desk was Bishop John Medley, the first Lord Bishop of Fredericton from 1845 through 1892. As a result of the consecration of Bishop Medley, and the creation of a new diocese, a see city was required. Hence, Fredericton received the elevated status of a city long before numeral strength warranted. Bishop Medley was responsible for overseeing the erection of Christ Church Cathedral.</td>
</tr>
</tbody>
</table>

Note: These sample labels are all adapted from Reverend Canon D.R. Staples' excellent exhibit brochure. Several labels for this study drew on Rev. Staples work.
Appendix B: Interview Script

Prior Experience

- How often do you visit museums? Do you usually visit history museums, or other types of museums?
- What do you think most people want out of a history museum visit?
- Can you remember one really neat thing you’ve seen or experienced at a museum?

Walk Me Through Your Experience at this Exhibit

- I have some pictures here of the “Assembled Drawing Room” exhibit, and all of the labels. What I’d like you to do is just walk me through your experience, as much as you can remember it. So, for example, I’d like to know what you looked at first, and how you moved around the room. If you can remember, I’d be interested to hear what you were thinking and feeling at any point. Take your time, and we can start whenever you’re ready.

Your Perspective on Observation and Survey Data

- A few people told me that they only read the labels carefully because they knew it was a label study. Normally, they only skim labels. Is that your experience in museums?
- This timeline label, a few people seemed reluctant or unsure if they could pick it up. Was that your experience?
- People had very mixed opinions about questions on labels. Some people told me they really liked it, and some people told me they strongly preferred the labels that did not include any questions or activities. What was your reaction to the questions? Was there a question that you particularly liked or disliked?
- What is your opinion of pictures on labels?
- To me, it seemed pretty quiet in the room. Did you hear any conversation, or speak to anyone? Do you remember what you spoke about?
- I noticed a few people stopped to look at objects outside of the room. Did you see anything that caught your eye? Did you look at the label?
Appendix C: Information and Consent Form

"Learning in the History Museum: Designing Exhibit Labels that Engage Visitors"

You are being asked to indicate your willingness to participate in a research project conducted by Alex Cogswell, a graduate student in UNB’s Faculty of Education. The purpose of this research is to learn more about visitor engagement in the history museum, and specifically how labels affect the process of engagement. Participants will be asked to visit the “Assembled Drawing Room” exhibit at the Fredericton Region Museum on 27 October 2014. You may spend as much or as little time as you wish at the exhibit, according to your interest. Your visit will not be recorded on video or audiotape. Following the visit, while still in the museum, participants will be asked to complete a survey about their experience. It is anticipated that the visit and survey will take up to one hour to complete. Light refreshments will be provided.

Of course, your participation is entirely voluntary, and you are free to withdraw from the study at any time. You may also decline to answer any specific questions. Be assured that the surveys will be absolutely anonymous. Your name will not be tied to the responses in any way. The data from all the surveys will be analyzed, and discussed in my thesis, and possibly in conference papers and journal articles. If requested, a copy of this thesis will be sent to you upon its completion. Surveys will be destroyed two years after completion of this research.

Your contribution to this study is greatly appreciated.

I hereby agree to participate in the research described above:

_____________________________________________________
Name (Please print)

_____________________________________________________
Signature
Appendix D: Interview Sign-Up

Are you willing to be interviewed?

Thank you so much for participating in this study! I greatly appreciate the time you have spent attending and completing the survey.

For those who are able to participate further, I will be holding follow-up interviews in the near future. These interviews would be held at a time and place convenient to you, or over email if an in-person meeting is not possible. The purpose of the interviews is to gather more information about your thoughts, preferences and experiences with history museum exhibits and labels, and to better understand your experience today. I will have pictures of the artifacts and labels to prompt your memory, and will ask you to describe what you were thinking and feeling during the exhibit. I anticipate the time commitment will be about 30 minutes.

If you consent, interviews will be audio recorded. These will be transcribed with a pseudonym, with any identifying details omitted. The audio recordings will then be destroyed. All interviews will remain completely anonymous.

This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2014-051. If you have any questions or concerns about this project, please contact Steve Turner (Chair of the UNBF Research Ethics Board) at turner@unb.ca. Again, thank you very much for your participation today.

Interview Sign-Up Sheet: please leave contact information below

____________________________________________________________________  __________________________________________________________________
____________________________________________________________________  __________________________________________________________________
____________________________________________________________________  __________________________________________________________________
____________________________________________________________________  __________________________________________________________________
Appendix E: Interview Consent Form

"Learning in the History Museum: Designing Exhibit Labels that Engage Visitors"

You are being asked to indicate your willingness to participate in an interview conducted by Alex Cogswell, a graduate student in the UNB Faculty of Education. The purpose of this research is to learn more about visitor engagement in the history museum, and specifically how labels affect the process of engagement. During the conversational interview, I will ask about your thoughts, preferences and experiences with history museum exhibits and labels, and will try to better understand your experience at the “Assembled Drawing Room” exhibit. I will have pictures of the artifacts and labels to prompt your memory, and will ask you to describe what you were thinking and feeling during the exhibit. I anticipate the time commitment will be about 30 minutes. With your permission, the interview will be audio recorded.

The interview is entirely voluntary, and you are free to withdraw from the study at any time. You may decline to answer specific questions. If at any time you find you are feeling uncomfortable, you may stop the interview and ask me to destroy any notes as well as the audio recording.

Be assured that the interviews will be absolutely anonymous. When completed, they will be transcribed with a pseudonym, with any identifying details omitted. The audio recordings will then be destroyed. Transcripts will be destroyed two years after the completion of this research. The data from all the interviews will be analyzed, and will be discussed in my thesis, and possibly in conference papers and journal articles. If requested, a copy of this thesis will be sent to you upon its completion.

I hereby agree to participate in the research described above:

__________________________________________________
Name (Please print)

__________________________________________________
Signature
Curriculum Vitae

Alexandra Leah Cogswell

University of New Brunswick, Bachelor of Arts, 2001

University of New Brunswick, Bachelor of Education, 2010