

Understanding visitor happiness in museums

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Abstract

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As museums begin to focus on the importance of visitor happiness and well-being, a growing number of studies have been conducted on how the museum environment can impact well-being. However, there has been limited research into how visitors are experiencing happiness in these settings. The purpose of this study was to explore how and in what ways museum visitors experience momentary happiness. The study was structured as a mixed-methods descriptive survey to understand what happiness means to museum visitors, in what circumstances they experienced momentary happiness, and how they express momentary happiness in a museum environment. Interviews were completed with 180 visitors and 75 visitor observations were collected across three Seattle-area museums. It was found that all visitors in this study experienced some level of momentary happiness during their museum visit. Visitors were most likely to experience momentary happiness throughout their visit, followed by a specific exhibit or activity and they most often expressed momentary happiness through physically or verbally engaging with their surroundings. This study provides evidence of momentary happiness in museums and could inform the design of future museum programs containing happiness-enhancing aspects as well as facets of visitor satisfaction.

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Chapter 1: Introduction

The pursuit of happiness is believed to be a fundamental right (McMahon, 2013) and once a person's basic needs of food, shelter and social support are met, they begin to seek out ways to enrich their lives (Diener, 2000). Determining what is necessary for greater happiness and what factors can lead to living the "good life" – defined as living a life that is enjoyable, full of meaning, engaging, and fulfilling (Diener & Seligman, 2004) causes individuals to take up rewarding hobbies, have careers of interest, and participate in leisure activities. In this pursuit of happiness, one way people find fulfillment and enhanced well-being is through engaging in cultural activities such as viewing live performances, visiting museums, and creating art. Through these activities, individuals can enhance their own happiness and well-being (Ateca-Amestoy, Gerstenbluth, Mussio, & Rossi, 2016). By understanding how happiness occurs in these settings, institutions can actively promote experiences that foster engaging environments.

The field of Positive Psychology was founded to better understand the concept of happiness and factors that influence a person's well-being (Seligman & Csikszentmihalyi, 2000). This can include meaning in life, autonomous needs, positive and negative affect, and life satisfaction (Samman, 2007). Due to the many different influences on happiness and well-being, the construct of happiness is not particularly well-defined and the terms happiness and well-being are often used interchangeably (Seligman, 2002). Happiness can be a momentary experience influenced by state-like circumstances (i.e. the environment) or a stable set point due to trait-like circumstances (i.e. inherent characteristics) (Seligman, 2002). One critical detail to understanding happiness is that momentary state happiness can influence enduring trait happiness (Fredrickson, 2001; Lyubomirsky, King, & Diener, 2005). This fact is crucial since it

suggests that creating opportunities to experience momentary happiness can lead to long-term trait happiness. Taking these factors into account, this study focuses on momentary happiness which is defined as a momentary emotion in which pleasure, the balancing of positive and negative affect, and being engaged in the moment are key components.

Happiness as a momentary emotion can be obtained through participating in arts and culture (Ateca-Amestoy et al., 2016). Cultural experiences have the potential to impact individual momentary happiness levels and become integral to sustained well-being and life satisfaction. Experiences of participation in cultural or leisure activities (such as visiting a museum, attending a live music event, or participating in a community art project) have been shown to positively influence individuals' momentary state happiness, which leads to impact in trait happiness and well-being through improved quality of life, positive health outcomes, having safe environments for acquiring new friendships and skills, and others (Ateca-Amestoy et al. 2016; Ander et al., 2011; Binnie, 2010; Chatterjee & Camic, 2015; Chatterjee & Noble, 2013; Fujiwara, 2013). Research conducted specifically on the positive impact of the museum environment (Chatterjee & Noble, 2013; Fujiwara, 2013) have also shown that experiences in these settings often lead to increased state and trait happiness and well-being.

Many museums have recognized the benefits of promoting health and various facets of well-being, including the broad concept of happiness. The Happy Museum Project, based in England, is a leader in the emerging trend of happiness in museums and has partnered with twenty-two museums across the UK to encourage them to provide happiness-boosting environments. However, the Happy Museum Project focuses on the potential that museums possess influence their visitors' well-being, rather than if visitor momentary happiness is actually occurring. Moreover, the majority of literature focuses on museums potential to influence visitor

well-being and happiness in general, rather than identifying specific museums that have conducted specific interventions. There is also minimal research that has been conducted with visitors to museums and other cultural institutions to determine whether visitors are truly experiencing happy emotions during their museum visit. Given this literature landscape, there was an opportunity to better understand whether visitors are experiencing momentary happiness within museum spaces and if so, how and why.

Therefore, the purpose of this research study was to explore how and in what ways museum visitors experience momentary happiness. The specific questions this study sought to answer were:

1. In what circumstances are visitors experiencing momentary happiness, and to what extent?
2. In which ways do visitors express momentary happiness in a museum environment?

Understanding what role momentary happiness is playing in visitors' experiences could provide insight into the impact museums have on overall visitor well-being as well as insight into specific facets of visitor satisfaction. Determining whether the momentary emotion of happiness is an outcome of museum visits could enable professionals to redesign specific spaces or programs in order to enhance visitor momentary happiness. Additionally, if people feel happy and are experiencing enjoyment, they are more likely to have a return visit and recommend their visit to others (Dilenschneider, 2018). Moreover, creating museum environments for the visitor to experience momentary happiness is important. If museums can provide spaces for visitors to experience momentary happiness, over time people will experience higher levels of trait happiness and more happy people in society is a positive outcome (Diener, 2000). By

incorporating visitor momentary happiness into museum goals, it can allow the museum to interact with the visitor in new ways and help the visitor have a joyful experience.

Chapter 2: Literature Review

Four areas of literature were explored to better understand the concept of happiness and the ways in which museums can promote momentary happiness. The first area of literature centers around defining happiness in order to develop a deeper understanding of the concept. The second area of literature researched what museums are currently doing to incorporate the concepts of well-being and happiness. This material provided insight into what is known about happiness in museums and where there are knowledge gaps. The third area of literature examined various factors that influence the visitor experience to determine whether different circumstances could play a role in influencing visitor momentary happiness. Finally, a fourth area of literature was explored to develop a better understanding of how the concept of happiness is measured and what techniques have informed research around measuring happiness both in general and in museums to provide guidance in study methodology development.

Happiness Defined

The word happiness is often loosely used to describe a basic emotion or an ideal of how one wants to live their life. The concept of happiness can encompass many aspects and frequently has many different meanings depending on the context in which it is used. For example, the concept of happiness can be interpreted to mean a positive emotion, it can mean a permanent state of feeling across your lifespan, it can be a goal to aspire to, or it can be an expression people use when they are willing to do something (as in “I’d be happy to help you with that”) (Diener, 2009; Fredrickson, 2009). Happiness as a descriptor is often not used scientifically due to the many different interpretations of the word and its overuse in describing the many different aspects of happiness. The word happiness is considered unmanageable and

the study of the concept of happiness has involved “dissolving the term into at least three distinct and better-defined routes to “happiness:” (a) positive emotion and pleasure (the pleasant life); (b) engagement (the engaged life); and (c) meaning (the meaningful life)” (Seligman et al., 2005, p. 413). Therefore, many researchers choose to discard the word in favor of more descriptive emotional words or focus on the broader concept of well-being. In this study, momentary happiness is defined as a momentary emotion in which presence of positive affect, absence of negative affect, and being engaged in the moment are key components.

In an attempt to understand the complex notion of happiness and its relationship to the broad concept of well-being, Seligman founded the new field of Positive Psychology. Seligman and Csikszentmihalyi (2000) described this new field of Positive Psychology as “about valued subjective experiences: well-being contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present)” (p. 5). Essentially, Positive Psychology studies how people can grow their level of well-being and introduce more positive emotions and meaning into their lives. There are two types of well-being: hedonic well-being and eudaimonic well-being. Hedonic well-being is concerned with the pleasures in life and how to maximize that pleasure. In contrast, eudaimonic well-being is interested in ways of improving the self through meaning, engagement, autonomy, self-realization and personal growth (Samman, 2007; Huppert & So, 2013). The ideas of hedonic and eudaimonic well-being can be tied back to Aristotle’s view of well-being as being more than pleasure and creating meaning from life as an important aspect (Ryan & Deci, 2001). While hedonic and eudaimonic well-being seem to be two different approaches, they are both necessary components to having a full and well-rounded life (Biswas-Diener, Kashdan, & King, 2000).

There are several factors that can influence individual overall well-being and happiness, such as adaptation and goals, temperament, and culture (Diener, 2000). Layard (2010) calls out five life circumstances that can influence individual levels of happiness: physical health, family status, employment, income, and age. To contend with these external influences, Lyubomirsky (2008) describes the 40 percent solution which attributes the trait of happiness to three distinct aspects: genetics, circumstances, and self. Genetics are believed to account for 50 percent of what influences our ability to be happy, and accounts for the differences in people's various starting levels of trait happiness. Circumstances attribute to 10 percent of what influences our level of trait happiness. This leaves 40 percent unaccounted for, and for which this model is named: "the potential of the 40 percent that is within our ability to control, the 40 percent for room to maneuver, for opportunities to increase or decrease our happiness levels through what we do in our daily lives and how we think" (Lyubomirsky, 2008, p. 22). Having control to change how happiness is experienced, despite numerous personal and societal influences, is key to understanding trait happiness. The 40 percent solution allows individuals to take charge of their happiness and not leave it up to chance.

Subjective well-being (SWB) is a segment of well-being which is often associated with the concept of happiness. SWB incorporates hedonistic components through the presence of positive affect and absence of negative affect, as well as cognitive components of life satisfaction (global and domain-specific) and the concept of flourishing (Diener & Biswas-Diener, 2008). Positive and negative emotions are important components in individual momentary state happiness as they demonstrate ongoing reactions to life events, while life satisfaction demonstrates an individual's level of fulfillment with their life (Diener 2009). While it has been

found that subjective well-being alone is not sufficient for the “good life,” it is a critical component in achieving that state of well-being.

Understanding the role of emotion in SWB is an important part of grasping the concept of momentary state happiness. Momentary state happiness is conceived as a momentary positive emotion that can lead to the long-term disposition to frequently experience positive emotions over time leading to trait happiness (Lyubomirsky, King, & Diener, 2005). According to Fredrickson (2001), “positive emotions are worth cultivating, not just as end states in themselves but also as a means to achieving psychological growth and improved well-being over time” (p. 218). Through experiencing positive emotions, individuals enable themselves to continue to experience positivity which enhances their long-term trait happiness.

Individuals are not biologically hardwired to experience specific emotions under certain circumstances (Fredrickson, 2014), so when and how emotions happen can impact momentary happiness. Experienced emotions are dependent on the context in which they occur, can be influenced by the individual, and are typically associated with meaningful experiences (Fredrickson, 2001). Affective phenomena are also critical in experiencing positive emotions and are considered the “hallmark of wellbeing – [and] may be the cause of many of the desirable characteristics, resources, and successes correlated with happiness” (Lyubomirsky, King, & Diener, 2005, p. 803).

The traditional view of positive emotions is that they signal well-being and guide behavior in the moment. Fredrickson’s broaden-and-build theory (2001) expands on that by giving positive emotions a larger role in building well-being. Through this theory, personal resources acquired during experienced momentary positive emotions outlast any temporary emotional effects (Fredrickson, 2001). Therefore, the resources you build while experiencing

positive emotion last beyond the brief moment in which the emotion is experienced and increase overtime to influence overall well-being: “little by little, these mind-expanding moments of positive emotions add up to reshape your life for the better, making you more knowledgeable, more resilient, more socially integrated, and healthier” (Fredrickson, 2014, p. 8). Experiencing positive affect creates a broadening effect that influences individuals’ habitual modes of thinking and acting. In this way, experiencing happiness as a momentary emotion can have a significant impact on an individual’s long-term well-being and trait happiness.

Summary

It is clear that there are multiple aspects influencing the concept of happiness and the broader state of well-being. While the term happiness is complex and poorly defined, the field of Positive Psychology has developed a rich understanding of what factors contribute to trait happiness and well-being and continues to introduce new theories and concepts to better understand how individuals can live the “good life.”

To create a holistic picture of an individual’s trait happiness, it is important to consider all aspects of subjective well-being. However, positive emotions are a key component in determining whether or not an individual experiences momentary state happiness, which in turn guides behavior to develop long-term well-being. Understanding how affective phenomena contribute to overall happiness is critical in developing mechanisms to capture individual levels of momentary happiness and form a basis for this study. Based on this understanding, momentary happiness, in this study, refers to experiencing positive emotions, having the absence of negative emotions, and being engaged in the moment.

Happiness in Museums

Most research in museums around the concepts of happiness and well-being refer to them broadly, rather than as distinct ideas of momentary emotions or long-term traits. Museums and cultural activities are demonstrated as avenues through which individuals may enhance their personal happiness and well-being. The choice to participate in cultural activities and attend museums, which are designed as environments where individuals can have positive experiences, allow individuals to maintain control over how and when they experience positive emotions and their long-term trait happiness. According to Silverman (2010), museums' interest in well-being is framed around contributing to society and helping them fill their public service role. To do this, museums "should be in the business of making people happy" (McGonigal, 2009, p. 51). McGonigal believes museums already provide experiences that encourage people to experience enhanced well-being, such as participating in satisfying work, being good at something, spending time with people you like, and feeling a part of something bigger than oneself. As museums find ways to provide fulfilling, meaningful experiences to their visitors they will "invent a better future by making us happier today, creating more sustainable sources of happiness and helping us collaborate to save the real world tomorrow" (McGonigal, 2009, p. 53). The Happy Museum Project is attempting to embrace McGonigal's view by creating "a leadership framework for museums to develop a holistic approach to well-being and sustainability" (The Happy Museum, n.d.) and focuses on changes museums can make to create better environments for their visitors and therefore impact the world.

Museums have great potential to influence visitor momentary happiness and therefore well-being through multiple areas of the visitor experience and museum operations. In *Trendswatch 2016*, Merritt discusses how to focus on happiness as a general concept in museums

and in which aspects it should play a role. Key areas identified with the potential to create happiness-enhancing experiences in museums were through incorporating well-being practices to impact employee happiness, understanding how charitable giving can increase donor happiness, using momentary happiness as an outcome for the visitor experience, and partnering with other charitable organizations or businesses to provide well-being outreach services. The emerging trend of happiness in museums is important to consider and will guide museums as they begin to provide experiences to enhance momentary happiness and long-term well-being.

Understanding Well-being in Museums

In an effort to understand how museums and museum programming have impacted well-being, numerous studies have been conducted. While some critics do not believe the concepts of happiness and well-being belong in museums or that museums should be responsible for promoting happiness and well-being (Lynch, 2017), prevailing literature indicates that museums and cultural entities can play a critical role in enhancing individual happiness and well-being which is evidenced by the numerous studies already conducted around this topic. Specifically, studies into museums' role in promoting health and its impact on well-being, the effect of participating in and viewing art on well-being, and how the museum environment and social interactions influence well-being have been explored.

Davies (2014) points out that museums must be one of the 'tools in the toolbox' for well-being in the future and therefore must take their role in health and society seriously. Silverman (2010) argues based on research that museums have demonstrated their effect on improving health in five major ways: through promoting relaxation, encouraging introspection to understand one's feelings and thoughts to boost mental health, disseminating health education to allow individuals to care for themselves, addressing broader social health concerns, and

enhancing healthcare environments. Chatterjee and Noble (2013) believe that a sixth element, museums as a force to support social togetherness and interaction to enhance well-being, could be added to this list. Studies examining museums and other cultural activities' effect on health, often conflate health with well-being, quality of life, satisfaction, and happiness (Chatterjee and Noble, 2013). This means that the studies conducted around health in museums are often researching different aspects of quality of life, satisfaction, or happiness but describe the benefits under the umbrella of well-being.

Participation in or being audience to the arts have been shown to have positive effects on health and the broad concept of well-being (Fujiwara, 2013). Museum programs developed to capitalize on benefits from the arts and arts therapy aim to provide inspiration to improve and maintain individual quality of life and influence overall community well-being (Chatterjee & Noble, 2013). Creating opportunities for arts participation in the community allows individuals to come together and engage in a collective creative process which in turn can impact specific health issues, such as reduced stress, or boost overall well-being (Windsor 2005; Devlin 2010, as cited in Chatterjee & Noble, 2013). The activities of making and experiencing art are important endeavors in creating enhanced personal health and well-being.

Museums are important venues for experiencing art and create experiences that allow visitors to restore themselves, relax, and unwind (Packer 2008). Museum objects have also been found to have therapeutic value (Ander et al., 2011; Chatterjee & Noble, 2013; Sayer, 2015) and viewing of art in museums and galleries has been viewed as a mechanism to reduce anxiety. Binnie (2010) looked at the perception of and experience with art in the museum and how this can influence overall well-being and affective responses. Visitors self-reported reduced anxiety levels after viewing art, but it was unclear whether the reduction in anxiety in frequent museum

visitors was due to viewing the artwork, being in the museum environment, or a combination of both factors. Chatterjee and Camic (2015) found similar findings in which art improved health and well-being outcomes for older adults, dementia patients, mental health service users, and others. Museums are also seen as “memory institutions” and can have an impact on well-being for people with mental health issues and dementia (Whelan, 2015).

Many of the studies on art measure ways of reducing experienced negative emotions and claim to increase individuals’ sense of well-being (Chatterjee & Camic, 2015; Chatterjee & Noble, 2013). Participating in and viewing art can also have benefits of “increased positive emotions, such as optimism, hope, and enjoyment; increased self-esteem and sense of identity; [and] increased inspiration and opportunities for meaning making” (Chatterjee & Camic, 2015, p. 183). Improvement in positive affect due to viewing art can increase momentary happiness, boost well-being in general, and improve cognitive processes such as problem solving and social interaction. This suggests that positive reactions to the experience of viewing art in a museum could be longer lasting than an instance of a change in mood (Binnie, 2010). Additionally, according to Fenton (2013), arts can build positive emotions and foster well-being through self-expression, exploring ideas and emotions, and experiencing encounters at the heart of learning.

Participation in museums promotes social inclusion and creates environments where people can come together to be creative, cooperative, and form connections with other individuals (Fenton, 2013). Social inclusion supports improved quality of life, empowerment, self-determination and self-esteem, aspirations, and skills (Whelan, 2015). Museums as institutions can have significant influence on social inclusion by creating safe, positive spaces for individuals in which they can focus on themselves. The environment of the museum often impacts individual’s ability to enhance their well-being: “the environment created by the

communal act of creating and experiencing culture assists in shaping a safe environment where people can form friendships and acquire new life skills” (Stickley and Hui 2012a, as cited in Chatterjee & Noble, 2013, p. 22). Entering and absorbing the museum space allows visitors to experience enhanced well-being or therapeutic benefits due to the inherent “safety” of the environment.

One way museums promote social inclusion is through being safe spaces in which many visitors feel comfortable exhibiting private behaviors. Many of these behaviors are classified as nonverbal involvement behaviors, which are “physical actions that quietly convey attention, interest, and concern as they build and sustain intimacy” (Silverman, 2010, p. 76). These nonverbal involvement behaviors are often seen between pairs during their museum visit: “like moving in similar ways, touching each other unconsciously, and looking at the same things... These intimacy-building behaviors are supported by the free-choice museum setting, its exhibits, and even the intimate interactions of other visitors” (Silverman, 2010, p. 76). Being able to express these intimate behaviors in a public setting not only reflects a safe environment, but also creates enhanced well-being due to positive relationship building. It is critical that museums continue to learn how to promote social inclusion and create these spaces since they have the opportunity to help individuals meet their basic relationships which ultimately leads to increased long-term trait happiness and well-being (Silverman, 2010).

While many studies focus on how museums positively impact health, provide opportunities for engagement with art, and provide safe environments and opportunities for visitor participation, not many studies discuss the impact of these interventions from the visitor perspective. Sayer (2015) examined the visitor perspective by looking at how archaeological digs influence individual and community happiness levels. The study analyzed the positive impact of

heritage on well-being and how community involvement in archaeological digs can give insight to how an individual understands oneself and support enhanced happiness and well-being (Sayer, 2015). This project provided participants with a personal historical connection and helped them form social relationships through using archaeological materials (Sayer, 2015). Overall, the study determined that “community projects and projects incorporating volunteer elements are likely to have a positive impact on participants’ well-being and personal happiness” (Sayer, 2015, p. 257) and concluded that increased well-being and happiness are influenced by outside factors such as personal choice and social context. Understanding how an experience impacts visitor happiness and well-being is a critical component that is missing from many of the other studies focused on well-being in museums.

Summary

Most of the museological studies focus on enhancing well-being, on the museum’s ability to provide positive participatory experiences, or creating environments that enhance individual well-being. However, there is limited research from the visitor perspective exploring whether or not visitors are truly experiencing momentary happiness during their museum visit. This is an oversight in the current literature, since a key piece to understanding whether or not visitor well-being is improving is asking visitors whether or not they are experiencing enhanced levels of momentary happiness during their museum visit.

From the studies discussed in this section, it is obvious that museums are invested in well-being. While studies have been done to understand nuanced relationships between cultural heritage engagement and a range of health and well-being outcomes (Chatterjee & Camic, 2015), there is still more to be done. Even though there is an increasing number of studies that

demonstrate the therapeutic potential and value of well-being in museums and other cultural entities, there is still a lack of robust quantitative and qualitative measures to demonstrate correlation between these encounters and enhanced health and well-being (Chatterjee & Noble, 2013). Moreover, the current focus is on how museums can generate well-being and impact in society and whether museums are fulfilling their civic duty as public institutions (Fujiwara, 2013; Merritt, 2016; The Happy Museum, n.d.; Whelan, 2015), not on how or whether momentary happiness and well-being related outcomes are occurring in the actual museum. This gap provides the opportunity to look more closely at the visitor experience in the museum setting to understand whether or not momentary happiness is occurring and under what circumstances.

Happiness and the Visitor Experience

Visitor momentary happiness in museums can be dependent on whether or not they are having satisfying experiences. Packer (2008) looked at different types of broad experience-based outcomes that capture the full value and benefits of the museum visit in order to determine what was truly influencing the visitor perspective and their levels of well-being. There are three experience levels that visitors value: attributes of a setting, experiences they engage in, and benefits they derive. A framework, created to define visitor motivations, includes five components of psychological well-being: personal growth, environmental mastery, purpose in life, positive relations, and self-acceptance. According to Asquith (2012), Packer's framework "ties in easily with institutional contributors to visitor satisfaction: service elements as well as programmatic ones" (p. 4). The framework provides a mechanism to understand what personal factors could be working in conjunction with environmental factors to produce satisfying visitor experiences.

Satisfying experiences in museums have the potential to influence visitor momentary happiness and therefore long-term overall well-being. Pekarik et al. (1999) designed a satisfying experiences framework which includes four types of valuable museum visitor experiences: object experiences, cognitive experiences, introspective experiences, and social experiences. Museums should design spaces to specifically elicit these four experiences (Doering, 1999) as they produce beneficial outcomes for the visitor (Packer, 2008). These four types of satisfying experiences are also dependent on experiencing various positive emotions such as experiencing beauty, feeling a sense of connectedness, or recalling memories (Doering, 1999; Pekarik et al., 1999). The presence of positive emotions within these four satisfying experiences strengthens their impact on visitor momentary happiness.

Aspects of the museum experience were examined to better understand how they can affect visitor momentary happiness. Specifically, how welcoming the environment is, interactions with other individuals, individuals' level of engagement with exhibits, and motivations for visiting.

The Importance of the Museum's Physical Environment on Happiness

The museum environment can have a large effect on visitor momentary happiness (Asquith, 2012). Visitor experiences are enhanced through a welcoming environment and designing for visitors' needs increases the likelihood of a positive experience. Servicescapes describe the "effect of atmospherics, or physical design and decor elements, on consumers and workers" (Bitner, 1992, p. 57) and are known to influence behaviors and create customer expectations in service businesses. Museums, as customer-centric organizations, can apply the concept of servicescapes to better understand how they affect their visitors.

Visitors respond to their environments holistically, and the combination of three categories of discrete stimuli (ambient conditions, spatial layout and functionality, and signs, symbols and artifacts) determines how they view the environment (Bitner, 1992). According to Asquith (2012), “museums should be vigilant for any weakness in the physical attributes of their space. The comfort and accessibility of their galleries, way-finding amenities, cleanliness, and even parking facilities can greatly affect the visitor satisfaction. Ambient conditions, such as noise levels and temperature, and comfort elements, such as seating, can strongly influence whether visitor experiences are positive or negative” (p. 9). By using the principles of servicescapes as best practice, museums can create positive experiences for visitors. Creating good signage, providing benches, clearly pointing out restroom locations, keeping line lengths short, setting a comfortable ambient temperature, ensuring exhibit text is easy to read, and other comfort inducing practices, allows museums to focus on other aspects that contribute to positive visitor experiences and increase visitor momentary happiness.

Various servicescape elements can influence visitor behaviors and allow visitors to have a range of experiences. Visitor behaviors are influenced through cognitive, emotional, or physiological responses to their environment (Bitner, 1992). Physiological responses to a servicescape often influence whether or not an individual will stay and enjoy an environment, as well as influence beliefs and feelings about a place and the people there. Personal perceptions of a servicescape have been found “to have influenced seemingly unrelated feelings about the products” (Bitner, 1992, p. 63). Other situational factors, such as the individuals’ reason for being in an environment, can also impact “what the individual notices and remembers about the environment, as well as how he or she feels about it” (Bitner, 1992, p. 65). Both of these factors can influence an individual’s beliefs or impressions about a place and other service attributes

(Bitner, 1992). In addition to individual responses to an environment, personality traits and mood can also impact how an individual reacts to or interprets their physical surroundings: “each individual enters an environment in a particular mood state (e.g. happy, depressed, lonely, anxious, excited, impatient). Such mood states are likely to affect as well as be differently affected by variations in physical surroundings” (Bitner, 1992, p. 65). Understanding how individuals respond to the servicescape can help predict what behaviors those individuals will display.

How individuals perceive servicescapes can be categorized into two components: pleasure-displeasure and degree of arousal (i.e. amount of stimulation or excitement) (Bitner, 1992). Pleasurable experiences can be expected to increase hedonic well-being. Perceived personal control over one’s environment is positively related to pleasurable emotions. Elements that increase perception of personal control are clear signage, good ventilation, adequate space, and other general comfort aspects (Bitner, 1992). Increasing visitor control through providing comfort aspects can lead to greater receptiveness towards an environment and boost visitation, satisfaction, and revenue (Asquith, 2012). Typically, high arousal environments are viewed positively unless the arousal is associated with unpleasantness (Bitner, 1992). Unpleasant, high arousal environments have a lot of stimulation, noise, or confusion in a negative way. It is critical that museums address basic servicescape needs for visitors to ensure that the servicescape is perceived as pleasurable and encourages positive experiences during their visit.

The Importance of Social Interactions in the Museum Environment on Happiness

An important piece of creating a positive visitor experience is offering high quality visitor service (Asquith, 2012). An individual’s response to an environment can affect their social interactions with other people in that environment. Museum servicescapes are built around

interpersonal services, in which both visitors and museum staff are present and carrying out behaviors within the servicescape (Bitner, 1992). High quality staff interactions have been shown to have a strong positive relationship with overall visitor satisfaction (Asquith, 2012). Creating a well-managed customer experience gives museums a competitive edge (Direshan & Azize, 2011) and by creating an overall ‘experience,’ a museum “can attract visitors, encourage repeat visitation, and hold visitors’ attention in exhibit elements” (Asquith, 2012, p. 7). Ensuring that visitors are having positive staff interactions increases the likelihood of a positive overall experience.

Moreover, social interactions with other visitors, whether they are visit companions or strangers, can impact an individual’s museum experience. Museums provide opportunities for positive social experiences (Chatterjee & Camic, 2015) which give an increased sense of social support and friendship while reducing feelings of isolation and loneliness (Chatterjee & Noble, 2013). It has been shown that individuals who are more socially connected are happier (Chatterjee & Noble, 2013) and that social interaction is the key to well-being (Fenton, 2013). Fredrickson (2009) states that “people gain more positivity by being with others than by being alone” (p. 191) and that experiencing positive momentary emotions also increases involvement with activities, number and frequency of social interactions, as well as more energy (Lyubomirsky, King, & Diener, 2005). Social interactions have a circular relationship with momentary and long-term trait happiness; the happier someone is the more likely they will partake in social interactions and the more social interactions one has, the happier they will be.

The Importance of Visitor Engagement with Exhibits on Happiness in Museums

Servicescape elements create environments in which visitors can safely and comfortably have an engaging experience. Specifically, exhibit environment, design, and content are critical

for visitor engagement and satisfaction in museums (Asquith, 2012). Understanding how exhibits produce positive experiences helps determine why they are one of the largest contributors to overall visitor satisfaction (Asquith, 2012).

Afonso and Gilbert (2007) discuss how exhibit design affects visitors' use, understanding, and evaluation of these exhibits. Many types of exhibits have been designed based on the expected level of attraction and "holding" power they will have on visitors (Afonso & Gilbert, 2007). The level of "exhibit load," or time and energy an exhibit requires a visitor to use while interacting and interpreting an exhibit, is important to consider as it will influence the amount of fatigue a visitor experiences during their museum visit (Veverka, 2012). "Exhibit load" can also influence the level of engagement and type of interaction a visitor will experience with exhibits in a museum. Additionally, different content has varying intrinsic value to visitors based on their own personal connections and ability to have meaningful experiences (Veverka, 2012). Engaging with an exhibit can create a positive experience and visitors may recall pleasant memories to make sense of an exhibit (Afonso & Gilbert, 2007). Interactive exhibits facilitate hands on experiences (Afonso & Gilbert, 2007) which allow visitors to try new things, be good at something, or participate in a satisfying experience (McGonigal, 2009). Interactive and static exhibits also provide opportunities for social experiences, whether it is interacting with group members or with other visitors in the space. Positive experiences due to engaging with exhibits can be attributed to positive affect, which encourages approach behavior or continued action which "prompt individuals to engage with their environments and partake in activities" (Fredrickson, 2001, p. 219). Individuals engaged in activities frequently experience mild positive affect (Fredrickson, 2001), therefore participating and engaging with exhibits creates positive experiences that can lead to increased momentary happiness.

The Importance of Motivations for Visiting on Happiness in the Museum

Motivation is a complex topic that involves understanding intrinsic versus extrinsic motivation. Intrinsic motivation is characterized by something that is inherently interesting or enjoyable, while extrinsic motivation is due to an external force or self-regulation that leads to a separable outcome (Ryan & Deci, 2000). Motivation is when an individual is moved to do something and can vary based on level and orientation, which concerns “underlying attitudes and goals that give rise to action – that is, it concerns the why of actions” (Ryan & Deci, 2000, p. 54). Every visitor comes to the museum with a mixture of motivations (such as desire to learn something new, a social interaction, or have a relaxing experience), but certain motivations are more important depending on the context of the visit (Rowe & Nickels, 2011). Rowe and Nickels (2011) state that “[the] underlying assumption... has been that the motivations expressed during a visit will directly impact how visitors conduct their visit and what meanings they will make from the experience” (p. 162). Ander et al. (2012) argue that motivation, along with physical environment, social context, and personal interest, is one factor that can influence how a museum visit will impact a visitor’s momentary happiness and long-term well-being.

Summary

Satisfying experiences in museums have the potential to influence visitor momentary happiness. Understanding what these experiences are and how broad experienced-based outcomes can influence momentary happiness provides insight into how visitors are interacting with the museum environment. Moreover, aspects of the physical environment, including how individuals perceive and behave in the environment due to servicescape elements, social interactions, level of engagement with exhibits, and motivation can also have an impact on how

visitors experience momentary happiness. Considering these four concepts when designing a museum space creates the opportunity for the visitor to have a positive museum experience.

Happiness as a Measurable Concept

Understanding how to measure momentary happiness is a critical piece in this study. It is important to know how to measure the concept of happiness in general, and then determine how it has been measured in museums. The literature in this section provided a jumping off point for informing the methodology and designing the instruments for this study.

Measuring Happiness

While the terms happiness and well-being are often used interchangeably, when attempting to measure the two concepts some differences emerge. Well-being is a construct considered to be made up of many different elements and therefore can only be measured in separate parts. In contrast, the concept of happiness is a singular measurable entity (Seligman, 2011). Moreover, emphasizing that happiness is an individual self-reported interpretation is critical to understanding how to measure happiness as a concept.

Subjective well-being is determined by an individual's self-evaluation of their life and is therefore measurable based on how one perceives and describes themselves (Diener, 2000; Diener, 2009; Kim-Prieto et al., 2005). Measuring all aspects of SWB can become biased due to current mood or other situated factors and many people often respond in socially desirable ways: "If they believe that happiness is normatively appropriate, they may report that they are happier than other types of assessments may indicate" (Diener, 2000, p. 35). Measuring levels of happiness based on individual interpretation gives each person the ability to choose whether or

not and in what ways their life is meaningful and whether or not they are living the “good life” (Diener, 2000).

Key components to measuring momentary happiness are positive and negative affect. Using the subjective areas of positive and negative emotion as defining characteristics for momentary happiness introduces personal variation into how happiness is measured (Diener & Biswas-Diener, 2008). It is important to understand how these emotions coexist and how to measure them since, it is essential that researchers “use measures of both pleasant and unpleasant affect, because ... these two types of emotions, formerly believed to be polar opposites, form two separable factors that often correlate with different variables” (Diener, 2000, p. 35). Measuring both positive and negative emotions creates a more complete picture and better judgement in self-evaluated SWB. Momentary states of happiness influence individuals’ overall disposition and well-being in a positive way: “Correlations involving long-term happiness are parallel to those of short-term positive moods” (Lyubomirsky, King, & Diener, 2005, p. 806). Therefore, momentary happiness can be best measured through collecting individuals momentary positive and negative emotions (Fredrickson, 2001) as well as measuring engagement in the moment.

Measuring Happiness in Museums

As museums have begun to recognize the importance of the emotion of happiness, they are also in need of determining the best way to measure this construct. To create a better understanding of the link between the concept of happiness and museums, The Happy Museum project commissioned a report from Daniel Fujiwara in the London School of Economics (2013) to determine whether or not visiting a museum and participating in other cultural arts are associated with higher levels of happiness (Merritt, 2016). The report critically examined how

visitors value their levels of happiness due to visiting or participating in museum activities (The Happy Museum, n.d.).

Fujiwara (2013) conducted a large quantitative study that used a Wellbeing Valuation Approach which estimated the monetary value of the impact museum goods and services have on individuals' levels of well-being. It was found that visiting museums and participation or being audience to the arts have positive effects on happiness (Fujiwara, 2013). This finding was corroborated by Ateca-Amestoy et al. (2016) who found that leisure in cultural activities increases the probability of self-reporting higher levels of happiness and well-being. Happiness was chosen as the measure for well-being in Fujiwara's study for three reasons: it was the metric that was used for well-being valuation in the U.K.'s *Taking Part* survey, it measures affective well-being and therefore picks up on positive emotions, and "happiness fits more closely with the concept of well-being and resilience set out in the Happy Museum Project" (Fujiwara, 2013, p. 10). Overall, this study "creates a strong positive foundation and argument for the role of museums and the arts in society" (Fujiwara, 2013, p. 35) and developed a way to measure museums' impact on happiness.

Understanding how to measure the general idea of happiness in museums is an important step and ties back to the sixth guiding principle of the Happy Museum project: measuring what matters. Fujiwara (2013) steps away from counting visitor numbers as a museum outcome and looks at what value visitors are gaining from their experience. This approach is consistent with Whelan (2015) who believes that "quality and impact of the museum's wider contribution to society and well-being are excluded from consideration when simply counting numbers" (p. 216). Butler (2011) also emphasized that museums should be measuring what matters and that visitor numbers do not provide information about the quality of visitors' experience and whether

or not it is contributing to visitors' well-being. He suggests asking visitors what affects them emotionally and believes that talking to visitors about what makes them happy will allow museums to accurately measure visitors' levels of well-being and happiness (Butler, 2011). Developing more robust measurements will allow for an expanded evidence base which is critical if museums and the cultural sector are going to demonstrate their value to society under well-being (Chatterjee and Camic, 2015).

Summary

Momentary happiness, defined as experiencing positive emotion, lacking negative emotion, and being engaged in the moment, is a measurable construct that can be captured through self-reported assessment. Subjective well-being is based on one's evaluation of their own life and therefore is highly variable between individuals. Moreover, measuring positive and negative emotion allows for a full picture of happiness as a construct and leads to a long-term impact on well-being.

In museums, the Happy Museum Project commissioned a report from Daniel Fujiwara (2013) who determined a positive correlation between well-being and participating in the arts. Measuring the relationship between well-being and participating in the arts was a critical step forward in museums to demonstrate that in order to really understand what factors are important to well-being, museums need to measure more than visitor numbers and ask visitors how they are feeling. Determining more consistent ways to measure the construct of happiness in museums will enable researchers to create a more robust evidence base in this topic.

Conclusion

Research on the broad concepts of happiness and well-being is a growing field of study. While there are many aspects of well-being and happiness being researched, the specific areas of subjective well-being and positive emotion are critical in understanding momentary happiness in museums. Subjective well-being incorporates the four major elements of presence of positive affect, absence of negative affect, life satisfaction, and flourishing. Each of these four elements has been viewed as essential components to long-term trait happiness. Positive emotions are also important in understanding momentary happiness. Experiencing positive emotions regularly enables a broadening effect which causes individuals to cultivate psychological growth and improved well-being over time.

Understanding what aspects of well-being that museums have the potential to influence provides a way for them to affect change in society or create an environment in which to enhance individual well-being. Incorporating servicescape elements in museum design is critical for creating satisfying, beneficial experiences for visitors. If visitors' basic needs are met within the museum environment, they experience positive social interactions, are given the opportunity to engage with well-designed exhibits, and their motivations are met, then visitors will be able to have more satisfying experiences and enhance their well-being through those experiences. Additionally, knowing how to measure momentary happiness and how museums are already capturing these measurements is critical for developing additional studies and understanding how momentary happiness is occurring in museums.

There have been numerous studies on how museums as institutions can affect visitor well-being, however there has been a lack of research from the visitor perspective. More robust studies on museum experiences from the visitor perspective are needed to determine if, how, and

to what extent museum visitors are experiencing enhanced aspects of well-being. To this end, this study intends to fill the gap of whether or not and in what ways museum visitors are experiencing momentary happiness during their visit.

Chapter 3: Methods

Research Purpose

To develop a broader understanding of visitor momentary happiness, information was captured to describe whether or not and in which circumstances they felt the emotion of happiness while visiting a museum. The purpose of this study was to explore how and in what ways museum visitors experience momentary happiness and was guided by two research questions:

1. In what circumstances are visitors experiencing momentary happiness, and to what extent?
2. In which ways do visitors express momentary happiness in a museum environment?

Research Design

Happiness in museums is a topic that is still being explored. In order to better understand how visitors are experiencing momentary happiness in a museum setting, the study was designed as a mixed-methods descriptive survey. Qualitative methods are traditionally used to collect subjective, self-described experiences of happiness. These self-reported data are combined with empirically tested quantitative scales from the field of Positive Psychology that capture aspects of momentary and long-term trait happiness. Using both qualitative and quantitative approaches allows for a more robust understanding of whether or not museum visitors are experiencing momentary happiness during the museum visit.

Site Selection

In order to develop a detailed understanding of visitor momentary happiness in museums, a broad range of experiences needed to be captured. Three sites were selected in order to have

different settings in which to determine whether or not momentary happiness is occurring in museum visitors. Sites were selected for this study based on several criteria:

1. Location of museum
2. Variation in museum discipline
3. Comparable size and visitorship

These criteria were chosen in order to minimize differences in type of visitor, location, and size, which could affect visitor emotion, while maximizing variation in data collected from visitors who were having a range of museum experiences.

The initial criteria for site selection was that they were located in the Seattle area. Selecting based on location suggests that each site has the opportunity to serve similar visitor populations of Seattle residents and tourists to Seattle who attend museums. Collecting from three Seattle-area museums allowed for relative consistency in external cultural or situational factors due to living in or visiting Seattle which mediates differences in self-reported emotion or experience. Selecting sites based in Seattle also allowed for data collection convenience in moving from site to site.

Next, museums were selected in an effort to provide different experiences based on the variation in discipline. A cultural museum (Museum of Pop Culture), a history museum (Museum of Flight), and a science center (Pacific Science Center) were chosen. The variation in discipline captured a range of experiences, since different types of visitors attend each museum based on content interest. Additionally, a third variable of museum size and visitorship was considered when selecting these sites. While exact numbers of square footage and visitor numbers were unavailable, a brief assessment on size of museum and rough estimate of yearly visitors suggested that all three sites were similar. Taking these three factors into account during

data collection and analysis enabled the researcher to paint a broad picture of momentary happiness across several different types of institutions.

On-site Location Selection

Once the three sites were chosen, the sites were scouted in order to determine similar on-site locations in which to collect data. Attempting to choose similar spaces in each museum allowed for reduction in variables that could influence visitor momentary happiness across sites. Choosing similar areas of the museum in which to collect data created a universality across different experiences which enabled aggregation of the types of situations in which visitors are more or less likely to experience momentary happiness. Areas within the museum where data were collected were chosen based on several factors:

1. Exhibit layout
2. An iconic or recognizable area that offered interactive experiences
3. Exemplified servicescape design

The first factor was finding a place within the museum that was fairly open which allowed visitors to explore and where the researcher could observe them from a distance. The second criteria was two-fold; the space chosen within the museum was an area that contained well-recognized or iconic exhibits that visitors often associate with that museum as well as provided visitors with various interactive exhibit experiences (If VI was IX guitar sculpture in the Museum of Pop Culture (Figure 3.1), the Great Gallery in Museum of Flight (Figure 3.2), and Ackerley Family Exhibit Gallery (Figure 3.3) where the Butterfly House is located in the Pacific Science Center). Finally, various museum elements, such as those discussed around servicescapes were considered. Some factors considered when spaces were chosen were whether or not an area had seating for visitors, natural light (except for the Museum of Pop Culture which

does not have windows within the museum), limited noise as possible, and engaging and well-labeled exhibits.

Figure 3.1
If VI was IX
sculpture at Museum
of Pop Culture



Figure 3.2
The *Great Gallery* at the Museum
of Flight



Figure 3.3
Ackerley Family Exhibit Gallery at
the Pacific Science Center



Study Methods

Qualitative self-reported data, quantitative measurement scales, and quantitative behavior occurrences were collected through visitor interviews and visitor observations. A facilitated semi-structured interview using open- and close-ended questions (See Appendix A) was designed to capture visitor responses. The researcher guided the discussion and recorded visitor responses during qualitative questions and visitors self-completed quantitative measurement scales and demographic questions. An observation sheet (see Appendix B) was designed to record visitor behavior and interactions with exhibits and other visitors as they moved throughout the designated museum space to determine how momentary happiness manifests itself.

Each method was collected separately from the other; no visitor who participated in the interview was observed (or vice versa). Interviews were conducted from a single, consistent

location in the museum while observations were conducted within the designated area. Both methods were conducted on the same days by a single researcher at the three different Seattle-area museums identified above during the months of February and March 2018.

Visitor Interview

Interviews were conducted in order to measure visitors' overall trait happiness levels, capture their positive and negative emotions in the moment, to develop an understanding of generally what visitors think happiness is and whether they are experiencing momentary happiness within the museum space. By gathering this information, a visitor's baseline level of trait happiness could be determined; and by capturing their level of positive and negative emotions and self-reported happiness during their visit experience it could be determined whether or not momentary happiness is occurring during the museum visit. Additionally, visitor perceptions of museums as happy places were captured in order to determine the overall sentiment of whether museums are places where visitors expect to experience momentary happiness.

The instrument (See Appendix A) used during these visitor interviews captured quantitative and qualitative data. Quantitative, close-ended questions from the literature were used to measure trait-happiness levels and state-happiness levels (Ander, n.d.; Lyubomirsky 2008; Seligman, 2002) and qualitative, open-ended questions were asked to capture how visitors generally talk about happiness and experience momentary happiness. Additionally, visitors were asked questions to determine if external factors influence the level of momentary happiness experienced during their museum visit.

The facilitated questionnaire was administered to individual adult visitors (age 18 and older) in various group compositions (i.e. alone, with a group of adults, in a mixed group of

adults and children). Visitors were sampled systematically; every third visitor was approached after crossing a predetermined imaginary line upon entering or exiting the designated collection area. Verbal consent was obtained from each participant prior to conducting the questionnaire. A total of 180 visitor interviews were conducted, 60 visitors participated at each museum.

Visitor Observations

The goal of this method was to understand whether visitors are expressing themselves physically or verbally in a positive way as they go through their museum visit. Observations were chosen in order to objectively observe visitor behavior and interactions without introducing potential bias due to interactions with the researcher (Chatterjee & Noble, 2013; Diener, 2000; Lyubomirsky, 2008). An observation sheet (See Appendix B) was designed to measure visitors verbal and physical behavior as they interacted with a museum space and fellow visitors, as well as estimated demographic variables of age, gender, and group composition. The observation sheet was used to record expected behaviors that have been associated with positive emotions in the literature (Fredrickson, 2009; Fredrickson, 2014; Lyubomirsky, 2008).

Visitor observations captured the behavior of individual adult visitors (age 18 and older) in various group compositions (i.e. alone, with a group of adults, in a mixed group of adults and children). Visitors were observed for the entirety of their visit within that space, or for up to 30 minutes. Visitors were sampled systematically, with every third visitor entering into the space being observed. Visitors entering the space were presented with signage indicating research was taking place within that museum space. Those who entered implied consent to participate in the study and were subject to observation. A total of 75 visitor observations were conducted, 25 visitors were observed at each museum.

Pilot Testing

Pilot testing was conducted at the Pacific Science Center to test the structure and wording of both the facilitated questionnaire and observation sheet. Observation sheet pilot testing took place on February 9, 2018 and facilitated questionnaire pilot testing took place on February 12, 2018 in three different museum spaces. Pilot testing of the observation sheet allowed the researcher to become familiar with observations as a data collection method as well as determine modifications to the behaviors listed based on visitors observed. Pilot testing the facilitated questionnaire allowed the researcher to determine how long it would take visitors to complete the interview and to incorporate minor language modifications to ensure that the questions being asked were clear to visitors and to include additional prompts for follow-up questions. Additionally, pilot testing allowed the researcher to test various areas of the Pacific Science Center to determine what specific attributes should be considered in selecting a museum space to collect data. These attributes were then applied in the selection of museum spaces at the Museum of Flight and the Museum of Pop Culture.

Data Analysis Plan

Data from all three museum sites were combined and analyzed in order to describe the overall trend of momentary happiness in museums. Careful site selection ensured similar experiences which allowed for analysis of data in aggregate. Due to the mixed-methods approach of this study, both qualitative and quantitative data analysis methods were used. Qualitative data were analyzed using deductive codes from the existing frameworks: satisfying experiences (Pekarik et al., 1999), servicescapes (Bitner, 1992), motivation (Hood, 1981; Falk, Moussouri, & Coulson, 1998), and positive affect and eudaimonic traits (Seligman, 2002). Emergent coding was also used to extend these frameworks for various items which did not fit. Close-ended

quantitative scale questions were analyzed based on previous methods from the literature (Ander, n.d.; Lyubomirsky, 2008; Seligman, 2002).

For observations, visitors' behaviors were analyzed using descriptive statistics to determine what types of experiences were observed. Demographic questions were analyzed using descriptive statistics.

Limitations of the Study

Challenges of this study involved nuances of language, potential to over generalize findings, and reliance on self-reported data. Happiness can be a complicated concept with many nuanced meanings. Determining what the idea of happiness means to individual visitors may be difficult especially since what makes one visitor happy may not make another visitor happy. To address these issues, it was important to have a clear definition of momentary happiness and to be precise with language when asking visitors to describe their experiences and to express generally what happiness means to them.

Additionally, it was critical to not over generalize these findings. Each visitor experience is unique and therefore these findings can be seen as informative, but not applicable to all museum settings. Relatedly, not all museum experiences are designed to elicit feelings of happiness and therefore momentary happiness should not be expected in all experiences.

Another challenge was the self-reported measurement of state and trait happiness provided by visitors which informed the bulk of the data. Visitor momentary happiness was captured but was difficult to discern whether the happy emotions identified by visitors were due to the museum experience itself or because they were generally happy people. To mitigate this, baseline levels of trait happiness were measured in an effort to determine whether the level of momentary happiness experienced during the museum visit was drastically different from

normal. Moreover, self-reported measures have been used throughout the literature and were considered a valid and reliable way to measure happiness (Diener, 2000). Therefore, even though responses were subjective in nature, measuring visitor momentary happiness in this way was considered an acceptable practice.

Chapter 4: Results and Discussion

Museum visitors were interviewed and observed in order to determine in what ways they experienced momentary happiness during their museum visit. These methods enabled collection of data to answer the questions: 1) how visitors generally describe happiness and what are their baseline trait-levels of happiness; 2) in what circumstances are visitors experiencing momentary happiness, and to what extent; and 3) in which ways do visitors express momentary happiness in a museum environment.

Description of Sample

Data were analyzed in aggregate across sites in order to develop a broad understanding of how and when momentary happiness occurs in museums. A total of 180 facilitated questionnaires (60 per museum) and 75 observations (25 per museum) were collected across the three research sites. Questionnaires were collected from the same location within each museum, and observations were consistently performed within a defined area. Questionnaires and observations were done concurrently from February 16 to April 1, 2018 on a mixture of weekdays ($n = 88$) and weekend days ($n = 92$) between the hours of 12-3pm.

Observation Demographics

Estimated age, gender, and group composition are recorded in Table 1. The majority of observed visitors appeared to be between the ages 26 and 55 years. More females were observed than males and visitors seemed more likely to visit in a mixed group of adults and children.

TABLE 1. Observed Visitor Demographics (n = 75)

Age	n		Gender	n		Group Composition	n	
18-25 years	8	11%	Female	45	60%	Mixed Group	40	53%
26-35 years	27	36%	Male	30	40%	Adult Group	29	39%
36-45 years	21	28%				Alone	6	8%
46-55 years	14	19%						
56+ years	5	7%						

The amount of time spent and the level of crowdedness in the observation area was recorded for each participant and can be seen in Table 2. Generally, as time spent increased, there were fewer number of participants within each bracket. For the majority of observations, visitors were exploring a relatively empty exhibit area, meaning that the area was at zero to twenty-five percent capacity.

TABLE 2. Observation Characteristics (n=75)

Time Spent	n		Level of Crowdedness	n	
1-3 min	26	35%	Empty	46	61%
4-6 min	10	13%	Moderate	20	27%
7-9 min	12	16%	Crowded	8	11%
10-12 min	8	11%	Extremely Crowded	1	1%
13-15 min	8	11%			
16-18 min	2	3%			
19-21 min	3	4%			
22-24 min	1	1%			
25-27 min	1	1%			
28-30 min	4	5%			

Interview Demographics

Visitors were asked to provide their age, gender, race or ethnicity, and zip code (see Table 3). Visitor ages were fairly evenly distributed across age ranges. Respondents were evenly

distributed between genders and predominantly identified as Caucasian. Visitors were most frequently from out of state which suggests a high tourism visitorship at these three museums.

TABLE 3. Visitor Interview Demographics (n=179)

Age	n		Gender	n		Race/Ethnicity	n		Zip Code	n	
18-25 years	23	13%	Male	93	52%	Caucasian	110	62%	King County	39	22%
26-35 years	48	27%	Female	86	48%	Asian	32	18%	Washington State	39	22%
36-45 years	37	21%				Hispanic	16	9%	Out of State	73	41%
46-55 years	31	17%				Pacific Islander	4	2%	International	27	15%
56+ years	39	22%				Native American	3	2%			
						Black	2	1%			
						Two or more races	6	3%			

Context of Visit

Forty-five percent (n= 80) of visitors interviewed indicated being at the beginning of their museum visit, 32 percent (n= 58) were in the middle of their visit, and 23 percent (n= 41) were at the end of their visit. This distribution suggests that a variety of experiences were represented in this data set. Only 33 percent (n= 59) of respondents reported prior visitation to the museum suggesting relatively low familiarity with the museums in this sample. In contrast, the 67 percent (n= 120) of visitors who had not been to the museum before were having a new experience.

Visitors were also asked who they were visiting the museum with, and to select their group composition (see Table 4). Visitors most often reported being in a mixed group of adults and children and most frequently mentioned that they were visiting with family.

TABLE 4. Group Composition of Interview Participants (n=179)

Group Composition			Who are they with?		
	<i>n</i>			<i>n</i>	
Mixed Group	90	50%	Family	99	55%
Adult Group	74	41%	Friends	33	18%
Alone	15	8%	Partner/Spouse	30	17%
			Alone	16	9%
			Organized group	10	6%
			Colleagues	3	2%

The majority of visitors (83%; n= 149) stated that the people they were with that day were typically those who would accompany them to that type of museum. Twenty-three respondents (13%) said that they were visiting with people who were not typical of those who would accompany them to that type of museum. These respondents indicated that they would typically like to visit the museum with family or friends (see Appendix C for further analysis).

When asked what motivated them to visit, respondents most frequently said they were visiting the museum because they were out-of-towners on vacation or business, or they had people from out of town visiting them. This finding is reflective of the large number of visitors who were visiting from out of state. Responses were coded for multiple reasons to capture when visitors demonstrated more than one motivation for visiting. Categories were initially coded a priori using a modified motivation framework (Hood, 1981; Falk, Moussouri, & Coulson, 1998), additional codes were added as they emerged from the data; categories that were mentioned less than ten percent of the time are not shown in Figure 4.1, for a full list of codes see Appendix D.

Figure 4.1
Visitors' self-reported motivations for visting the museum that day (n=179)



The majority of visitors (63%; n= 113) had an unfocused visit (Falk, Moussouri, & Coulson, 1998) which meant that they stated that their motivation did not influence where they went in the museum. The remaining 37 percent (n= 66) of visitors had a semi-focused or focused visit (Falk, Moussouri & Coulson, 1998) and said that there was some factor of their motivation that was influencing where they went in the museum. Semi-focused and focused responses were coded into five categories. The most frequently mentioned category, at 65 percent (n= 43), was that they or a group member wanted to see a specific exhibit at the museum. Eighteen percent (n= 12) of respondents said following someone around or doing specific activities for someone, like their children, was influencing where they went in the museum. The remaining categories visitors listed include “Other” (14%; n= 9) visiting their favorite areas (11%; n= 7), and where their visit started was influenced by their motivation to visit (8%; n= 5).

How do visitors describe happiness?

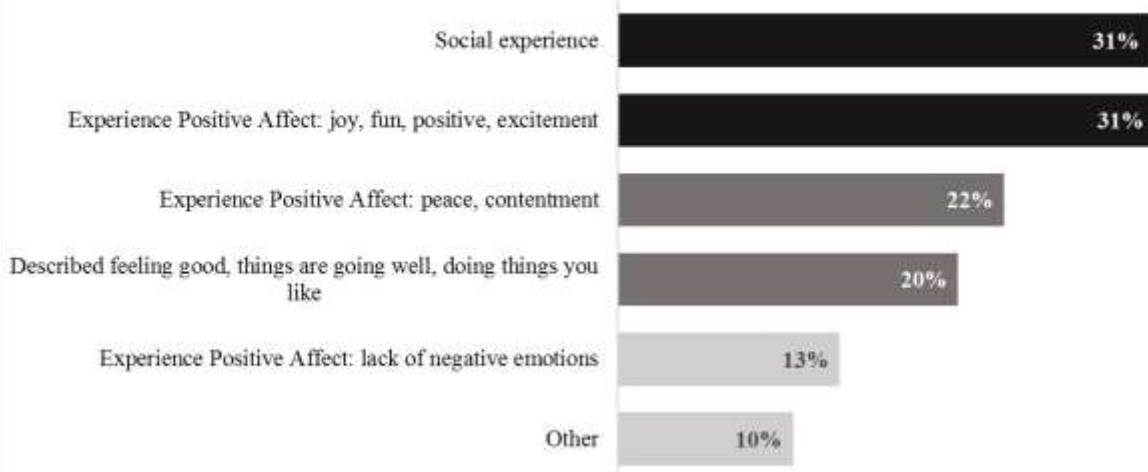
To determine how momentary happiness was occurring in museum visitors, it was important to understand how they generally think about and experience happiness. Responses provide context to interpret how people talk about and experience momentary happiness in the museum and if the level of momentary happiness experienced is reflective of how visitors generally experience happiness. This information also sheds light on whether or not generally happy people visit museums in the first place or if people are experiencing heightened happiness during the museum visit. To that end, visitors were asked three context-setting questions: describe what happiness means to them, how they feel when they are happy, and to fill out a Subjective Happiness Scale to measure their baseline levels of trait happiness.

Describing visitors' perceptions of happiness

When asked what happiness meant to them, visitors most frequently described a social experience, such as “being with my family,” “smiles on our kids’ faces,” or sharing experiences, and positive affect surrounding joy, fun, positivity, and excitement. The next most frequent response was also around positive affect including peace, comfort, contentment, and satisfaction. Responses were assigned multiple codes as appropriate and the breakdown amongst categories that were mentioned by at least ten percent of visitors can be seen in Figure 4.2; an explanation of all codes can be found in Appendix D. This question was coded using an a priori approach, utilizing the framework from Pekarik et al. (1999) around satisfying experiences and incorporating elements of positive affect and eudaimonic traits (Seligman, 2002), then emergent categories were added as responses were analyzed.

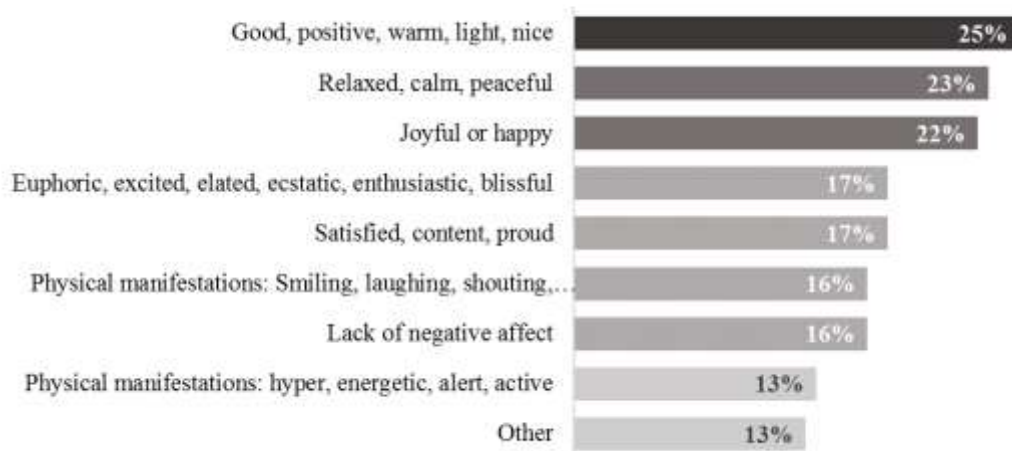
Figure 4.2

How visitors describe what happiness means to them (n=179)



Visitors were also asked how they feel when happy, and they most frequently described positive affect emotions. Followed by physical manifestations of happiness such as smiling, laughing, shouting and dancing. Notably, visitors also listed a lack of negative affect occurring when they feel happy. The breakdown amongst categories that were mentioned by ten percent or more of visitors can be seen in Figure 4.3 and an explanation of all codes can be found in Appendix D; responses were assigned multiple codes as appropriate. This question was coded emergently, pulling in aspects of positive and negative affect, eudaimonia, and the satisfying experiences framework (Pekarik et al., 1999).

Figure 4.3
The ways visitors describe feeling when they are happy (n=179)



Responses to these two questions provided a general understanding of how this sample of visitors experience and describe happiness in general. If visitors recounted their museum visit in similar ways to how they generally described happiness, it suggests a connection between the museum experience and experiencing momentary happiness.

Subjective Happiness Scale

Visitors completed a baseline trait happiness measurement scale, the Subjective Happiness Scale, by rating, on a scale of 1 to 5, four questions which asked them about their general perceptions of their personal level of happiness (see Appendix A, self-administered question 2). The four questions asked generally how happy the individual thinks they are, compared to most of their peers how happy they think they are, if they are generally happy no matter the circumstances, or if they are generally unhappy or not as happy as they might be. The ends of the 1 to 5 scale varied depending on the question. The four scores were averaged to determine visitors' trait happiness scores. The Subjective Happiness Scale was modified from Sonja Lyubomirsky's (2008) seven-point scale which finds the average trait happiness score of

adults to be 5.6 which corresponds to 80 percent and equates to a score of 4 out of 5 on the modified 5-point scale.

The average score on the Subjective Happiness Scale in this sample of museum visitors was 3.98, which is comparable to the 80% average score found by Lyubomirsky (2008) and suggests that the trait happiness scores of this sample of visitors is representative of the population. Visitor scores are further broken out in Figure 4.4 which shows a relatively even distribution of scores on both sides of the population average score of 4. These baseline trait happiness scores can be used to determine whether visitors are generally happy people.

Figure 4.4
Visitor trait-level Subjective Happiness Scale scores
(n =178)



Summary

The average Subjective Happiness Scale score of this sample of visitors is similar to the population average, which suggests that the range of trait happiness levels in this group is a normal representation. Moreover, since visitors generally describe the concept of happiness in terms of expressing positive affect, experiencing physical manifestations of happiness, and

referring to social experiences, it can be assumed that when similar language is used during the museum visit they are experiencing momentary happiness.

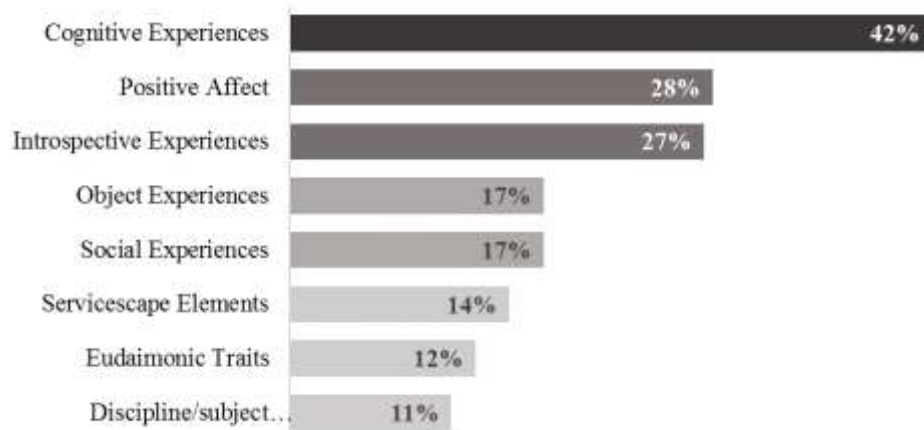
Happiness in the Museum

After developing a broad understanding of generally what happiness means to museum visitors, how visitors view the concept of happiness in museums was examined. Visitors were asked whether or not they thought of museums as happy places and to rate how happy they felt during their museum visit that day. Asking visitors whether they think of museums as happy places allowed them to reflect on their museum experiences and captured their perceptions of if, how, and in what ways museums provide spaces to experience momentary happiness. Visitor perspectives on happiness in museums can provide insight into whether or not and in what ways they actually experience momentary happiness during their museum visit. These two questions enabled the concept of happiness to move from a broad idea in the museum, to whether or not it is specifically being experienced.

Visitors overwhelmingly reported that museums are happy places, with 83 percent (n=149) of visitors responding “yes.” The remaining visitors either did not think museums were happy places (6%; n= 11) or said that it depended on the museum (10%; n= 18). All visitors were asked to explain their response and the follow-up responses were coded using an a priori approach utilizing the satisfying experiences framework (Pekarik et al., 1999), positive affect and eudaimonic traits (Seligman, 2002), and servicescape elements (Bitner, 1992); additional deductive codes were added as the data was analyzed (see Appendix D). The most frequent response to why museums are happy places was cognitive experiences which includes gaining new knowledge or enhancing existing knowledge, such as “[it’s] fun to learn new things and explore,” or “[museums are] places of learning and learning is happy.” This was followed by

positive affect, which includes all language around positive affect (joy, enthusiasm, peace, satisfaction, etc.), then introspective experiences. Introspective experiences include imagining other times or places, reflecting on the meaning of what is being looked at, recalling childhood, travels, or other memories, feeling a spiritual connection, or feeling a sense of connectedness or belongingness. Examples of responses coded as introspective experiences are “we get to learn where we came from, all the things that make us what we are, our world,” “makes you think, different experience than normal life,” “brings happy memories,” or “in awe of God’s creation.” Visitor responses were assigned multiple codes as appropriate; the breakdown amongst categories that were mentioned by ten percent or more of visitors can be seen in Figure 4.5.

Figure 4.5
Why visitors think museums are happy places (n=179)



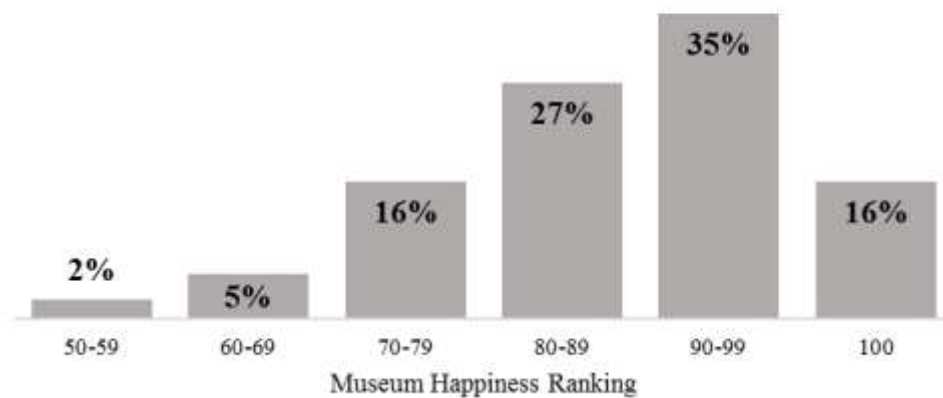
Museum Happiness Ranking

Visitors ranked their overall level of happiness during their museum visit that day. This question was structured as a modified EQ-VAS scale, adopted from Ander (n.d.) which asked respondents to mark an “X” on a scale of 0 to 100, where 100 was happy and 0 was unhappy (see Appendix A, self-administered question 1). Approximately half of visitors (n= 90) ranked their happiness level at 90 or above, while only two percent (n=4) of respondents ranked their

happiness level below 60. Further breakdown across categories can be seen in Figure 4.6.

Overall, the majority of visitors are experiencing a great amount of momentary happiness during their museum visit with no visitors experiencing unhappiness.

Figure 4.6
Visitors' Museum Happiness Ranking
(n=179)



Visitors' Subjective Happiness Scale scores (trait happiness) were compared with their Museum Happiness Ranking (momentary happiness) to determine whether or not there were any patterns between individuals' general levels of happiness and how they ranked their level of happiness during the museum visit. However, the Pearson correlation did not show a relationship between the two measures.

Summary

The majority of respondents think of museums as happy places due to having learning experiences, experiencing positive affect such as joy, excitement, contentment, or peacefulness, and the reflective and connective nature of museums. When asked how happy they were during their museum visit that day, all visitors reported being some level of happy, with just over half of visitors ranking their level of happiness at 90 or above. This suggests that visitors think of

museums as happy places and they generally experience momentary happiness during their museum visit.

In what circumstances do visitors experience happiness?

Several aspects of the museum visit were considered in order to determine in what circumstances visitors were experiencing momentary happiness. First, visitors were asked to rate a series of emotion words based on how they felt in the moment; this exercise allowed visitors to consider various emotions to determine whether or not they experienced them during the museum visit. Visitors also were asked to recall whether or not and when they experienced happy emotions and to describe their favorite museum experience during the visit in order to understand what types of experiences visitors identified as enjoyable. Lastly, visitors were asked to recall if there was anything that frustrated them about their visit to understand if anything occurred at the museum that could detract from their momentary happiness.

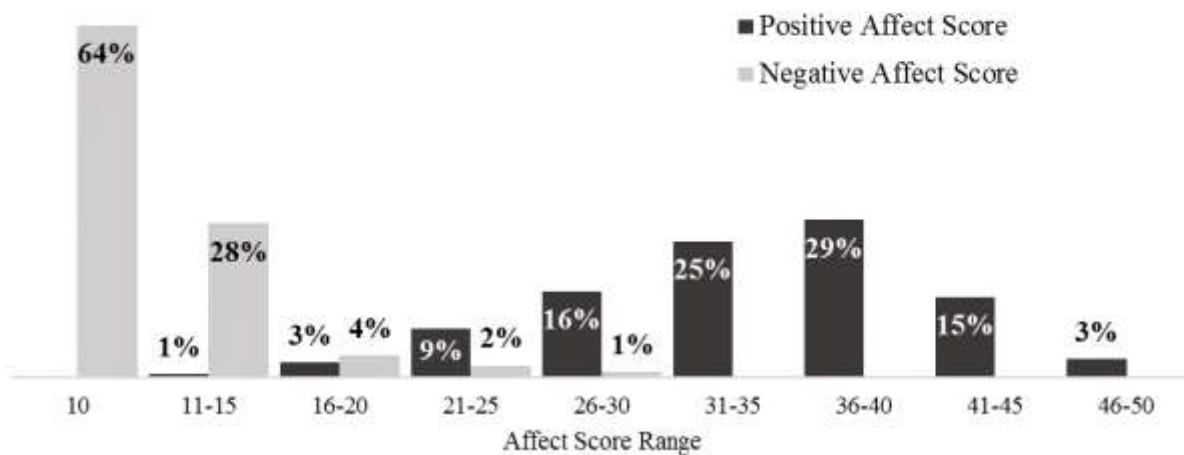
Positive Affectivity and Negative Affectivity Scale

Interview respondents were asked to complete a positive affectivity and negative affectivity scale (PANAS) in which they rated twenty emotion words (10 positive and 10 negative) on a scale of 1-5 based on how they felt in the current moment (Watson, Clark, & Tellegen, 1988) (see Appendix A, question 5). To determine visitors' level of emotion using PANAS, affect scores are calculated based on how respondents rate the twenty emotion words. Ratings for positive affect words are added to determine a score for positive affect and the ratings for negative affect words are added to determine a score for negative affect. The scores can range from 10 to 50 for each category. In the overall circumstance of the museum visit, PANAS allows visitors to reflect on and identify various types of emotions that they may be

experiencing in the moment. If visitors rate positive emotion words highly, it can be assumed that they are experiencing momentary positive emotions and therefore momentary happiness during their museum visit.

The overall average for Americans was provided by Seligman (2002) who lists the average positive affect score at 29.7 with a standard deviation of 7.9 and the negative affect score at 14.8 with a standard deviation of 5.7. The sample of museum visitors had an average positive affect score of 33.8 with a standard deviation of 7.8 and a negative affect score of 11.3 with a standard deviation of 3.4. Based on these average scores, it can be seen that the momentary positive affect and negative affect experienced by this sample of museum visitors is similar to the population. Positive and negative affect scores were broken out further to determine the distribution of the scores across the museum sample (Figure 4.7).

Figure 4.7
Museum visitors' positive affect scores and negative affect scores
(n=179)

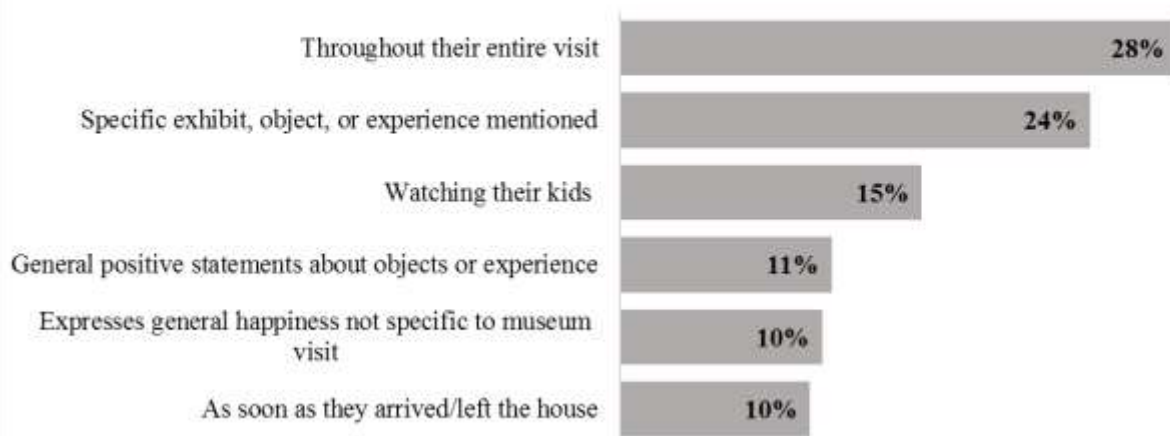


Recalling Happy Emotions

Overall, ninety percent (n= 161) of visitors reported experiencing happy emotions during their museum visit, with approximately five percent (n= 8) saying that they experienced happy

emotions a little bit, and about six percent (n= 10) saying they did not experience happy emotions. Visitors most frequently stated that they experienced happy emotions all throughout their visit and there was not one specific experience that caused them to feel happy emotions (i.e. “at most points,” “the whole time,” “throughout entire visit”). This was followed by a specific exhibit, object, or activity, such as attending an IMAX show, seeing different types of airplanes, or playing instruments in Sound Lab. Visitor responses were coded emergently (refer to Appendix D); responses were allowed to be assigned multiple codes as appropriate and Figure 4.8 depicts categories that were mentioned by 10 percent or more of visitors.

Figure 4.8
When visitors experienced happy emotions during their museum visit
(n=179)



Favorite Experiences

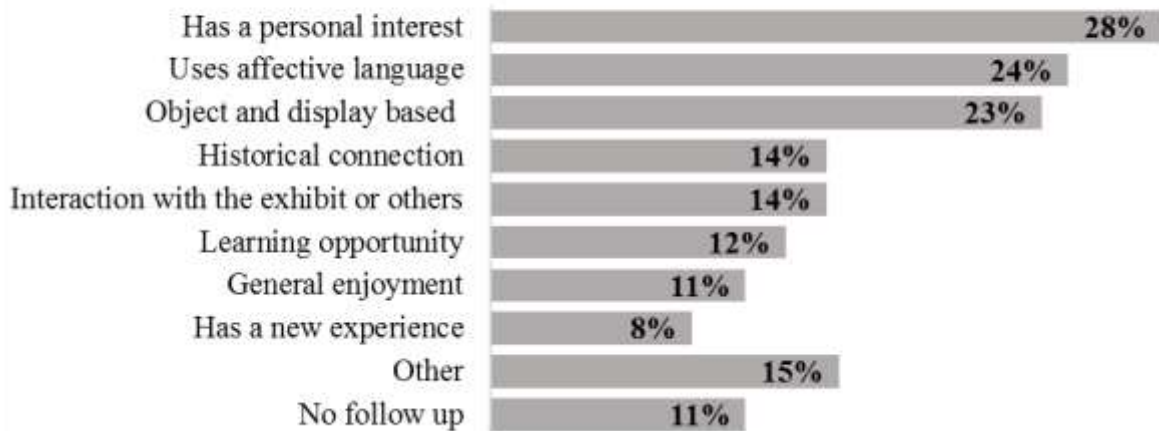
The experiences that visitors identified as their favorite or most memorable shed light on which types of circumstances were enjoyable. Experiences were coded emergently into five experienced-based categories with one category that captured visitors who had not had a favorite experience yet (see Appendix D). Viewing a static exhibit (such as a specific artifact, reading exhibit labels, or generally looking at objects) was recalled by 51 percent (n= 92) of respondents

making it the most frequently mentioned favorite experience; followed by an interactive or immersive exhibit (visitors specifically mentioned “interactive,” “hands on,” or talked about an exhibit where they participated in something) recalled by 32 percent (n= 57) of respondents. The remaining four categories were all mentioned by less than seven percent of visitors.

For visitors who found viewing a static exhibit most interesting, their most frequent reason was that they had a personal interest in the material (36%; n= 33); followed by how the exhibit was displayed or getting to see the “stuff” (32%; n= 29) and seeing the history of things (24%; n= 22). For visitors who found interactive or immersive experiences the most enjoyable, they equally described them using affective language (37%; n= 21) or enjoying them due to being able to participate or interact with the exhibit or other people (37%; n= 21) in relation to the experience.

When examining the sample overall (Figure 4.9), having a personal interest was the most frequently cited reason for why something was considered a favorite experience, followed by describing the experience in an affective way or mentioning something about how the object was displayed or how it was exciting to see the “stuff.” The remaining categories were fairly evenly distributed. Visitor responses were coded under multiple reasons as appropriate.

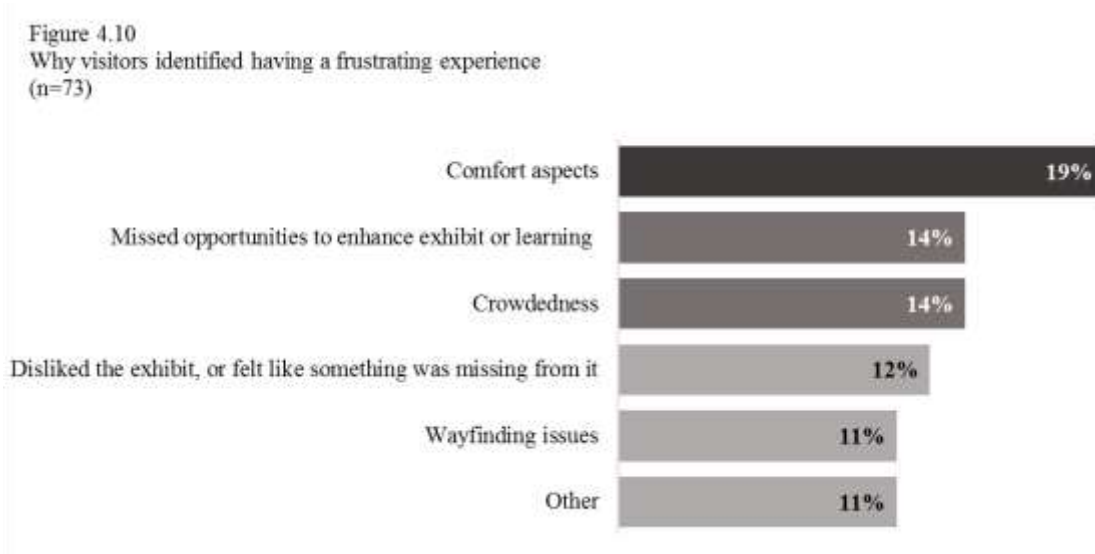
Figure 4.9
Why visitors identified an experience as their favorite or most memorable
(n=179)



Frustrating Experiences

In contrast to measuring favorite experiences, visitors were also asked if they had experienced anything frustrating or if anything could have brought more joy to their visit. This question sought to capture circumstances that may be negatively affecting the visit experience. While 59 percent of respondents did not have a frustrating experience, 41 percent did mention something they found frustrating.

The most frequently mentioned reason for frustration was related to comfort aspects of their visit, such as having a place to store their jackets, experiencing long lines, traffic, or difficulties with parking. Followed by missed opportunities in how content was presented, specifically due to unclear instructions, confusing displays, and timing overlap of presentations. Level of crowdedness was also mentioned as a factor that caused them frustration. The breakdown across categories mentioned by ten percent or more of visitors can be seen in Figure 4.10; visitor responses were coded into multiple categories and explanation of all emergent codes can be found in Appendix D.



Summary

In the overall circumstance of the museum visit, PANAS scores demonstrate that visitors' momentary levels of emotion are reflective of the population. However, it also shows that they experience more positive affect than negative affect which means that the museum visit is generally a positive experience for visitors. Moreover, the large majority of visitors experienced happy emotions during their museum visit specifically due to the overall experience, followed by a specific exhibit or activity. Insight into the circumstances of visitors' favorite experiences suggests that enjoyment and positive emotion most frequently occurred in static exhibits, followed by interactive or immersive exhibits. These experiences were visitors favorite due to having a personal connection to the material, enjoying how content was displayed and getting to see the "stuff", and describing the experience in an affective way. Slightly less than half of visitors had a frustrating experience, which was attributed to general comfort aspects, an issue with how content was displayed, or crowdedness.

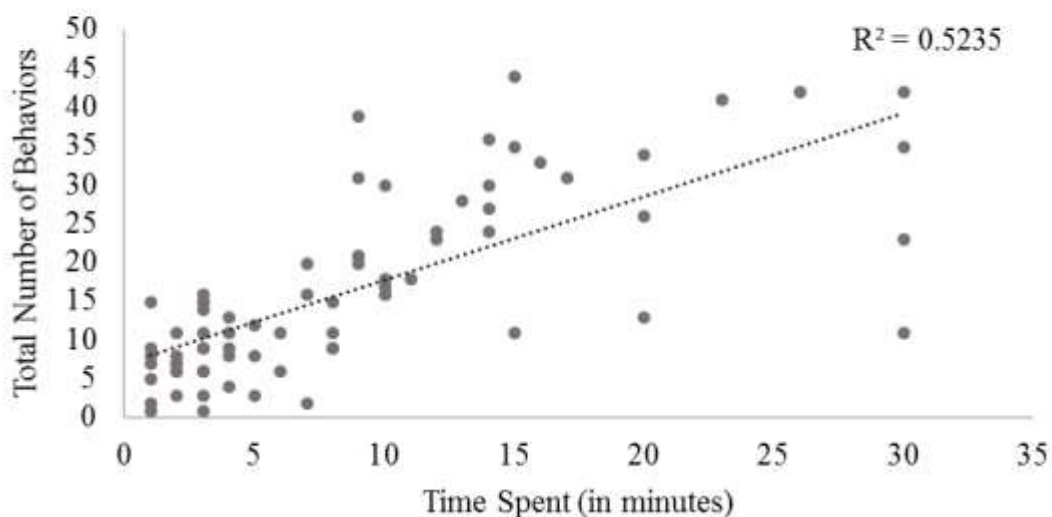
How do visitors express happiness in museums?

Visitor observations were used to answer the second research question. The observations were structured to capture a range of happiness-related behaviors that were then grouped into four categories: engagement behaviors, verbal behaviors, facial expressions, and perceived boredom or disinterest (see Appendix B for instrument and Appendix D for categorization). The goal of these observations was to capture a range of behaviors in order to capture the visible expression of emotion. While visitors identified a range of ways they generally feel when they are happy, observations provided one way to record physical expressions of emotion occurring in the museum space. Since observations and interviews were not collected from the same audience, it was not possible to compare the different ways in which visitors generally described happiness and how they expressed emotion in the museum setting.

Total number of behaviors per participant was compared to the amount of time they were observed. As expected, the less time participants were observed, the fewer number of behaviors they experienced. However, some inconsistencies were evident (Figure 4.11).

Figure 4.11

There is a weak correlation between time spent and number of behaviors observed (n=75)



Ninety-nine percent (n= 74) of visitors exhibited engagement behaviors which consisted of interacting with an object or exhibit, participating in an activity alone or with someone else, watching someone interact with an object, exhibit, or activity, performing physical gestures of pointing, nodding, or leaning towards someone or something, or when they showed excitement, energy, or enthusiasm. Ninety-three percent (n= 70) exhibited verbal behaviors in which the visitor spoke with someone in or outside of their group; sixty-four percent (n= 48) of visitors experienced facial behaviors of smiling or laughing. Boredom or disinterest behaviors were present in 27 percent (n= 20) of participants and were typically characterized as checking their phone or not engaging with the group.

Behaviors were also broken down to look at average number of behaviors per participant. On average, participants exhibited approximately 16 behaviors, which was broken out further into the four categories: eight engagement behaviors per participant, five verbal behaviors per participant, two facial expressions per participant, and less than one boredom or disinterest behaviors per participant. These behaviors are known to be manifestations of happiness (Brown & Ryan, 2003; Chatterjee & Noble, 2013; Fredrickson, 2001; Fredrickson, 2014; Kim-Prieto et al., 2005; Lyubomirsky, 2008; Seligman, 2002) and suggests that participating in these experiences are either enhancing visitor levels of momentary happiness during their museum visit, or visitors are engaging in these types of behaviors because they have high levels of trait happiness.

Summary

Based on observations, visitors most frequently experienced engagement behaviors followed by verbal behaviors during their museum experience. As these behaviors are known to

be manifestations of happiness (Brown & Ryan, 2003; Chatterjee & Noble, 2013; Fredrickson, 2001; Kim-Prieto et al., 2005; Seligman, 2002) it can be presumed that visitors are expressing the emotion of momentary happiness during their museum visit through physical and verbal engagement with the surroundings.

Chapter 5: Conclusion

This study set out to explore how and in what ways museum visitors experience momentary happiness. In order to determine this, two research questions were examined:

1. In what circumstances are visitors experiencing momentary happiness, and to what extent?
2. In which ways do visitors express momentary happiness in a museum environment?

Information was also collected to understand how visitors generally describe happiness and whether or not they think of museums as happy places.

Conclusions

Visitors' baseline levels of trait happiness, determined using the Subjective Happiness Scale (Lyubomirsky, 2008), were found to be reflective of the population. This sample of visitors generally describe the emotion of happiness as expressing positive affect, experiencing physical manifestations of happiness, and referring to social experiences. It was presumed that when similar language was used during the museum visit that visitors were experiencing momentary happiness. The majority of visitors also thought museums in general are happy places because they provide opportunities to learn, generate positive affect, and are reflective and connective in nature. These findings extend the satisfying experience framework (Pekarik et al., 1999) by demonstrating that many of the museum experiences previously identified as satisfying are also reasons why museums are happy places. This means that many satisfying museum experiences may also cause visitors to feel momentary happiness.

Moreover, all visitors reported experiencing some level of momentary happiness during their museum visit, with just over half of visitors ranking their level of happiness at 90 or above

out of 100. These findings link to research previously discussed around the potential for cultural activities to inspire momentary happiness in visitors (Ateca-Amestoy et al., 2016; Fujiwara, 2013). Understanding how visitors identify with happiness in general and in the museum was critical to set the context for whether momentary happiness experienced during the museum visit was due to the visit or a generally happy disposition. Based on these findings it can be assumed that the visitor sample is representative of population happiness levels, view museums has happy places, and are all experiencing momentary happiness during their museum visit.

Visitor PANAS scores (Watson, Clark, & Tellegen, 1988; Seligman, 2002) show that the general circumstance of the museum visit is a positive experience for visitors and most visitors identified experiencing happy emotions. These findings tie back to the definition of momentary happiness for this study by showing that visitors are experiencing positive emotion and have low amounts of negative emotion. The circumstances in which visitors identified experiencing happy emotions or enjoyment due to a favorite experience were found to be either throughout the entire visit or due to an exhibit or activity. Visitors most frequently identified favorite experiences due to a personal connection to the material. Frustrating experiences involving general comfort aspects, missed opportunities in how information was presented, and crowdedness were also identified by visitors. These findings provide new insights into the experiences in which visitors identify feeling momentary happiness during their visit, compared with experiences which have previously been identified as satisfying (Pekarik et al., 1999). While different methodology was used in Pekarik et al., it is interesting to note that in the moment of the museum visit visitors are more likely to talk about their experience overall or refer to a specific exhibit or activity. This is in contrast to when visitors reflected upon museums as happy places and gave responses that more closely aligned with the satisfying experiences framework.

Museum visitors most frequently expressed themselves through engagement behaviors, followed by verbal behaviors. These behaviors are known to be manifestations of happiness (Brown & Ryan, 2003; Chatterjee & Noble, 2013; Fredrickson, 2001; Kim-Prieto et al., 2005; Seligman, 2002) which suggests that visitors are expressing momentary happiness through physical and verbal engagement with their surroundings. Physical engagement with visitors' surroundings, including engagement with exhibits and interactive activities, are known to be related to visitor satisfaction and positive experiences (Afonso & Gilbert, 2007; Asquith, 2012; Fredrickson, 2001). Verbal engagement involves social interactions with others, which has also been shown to positively affect the visitor experience (Chatterjee & Camic, 2015; Chatterjee & Noble, 2013; Fenton, 2013). The findings from this study continue to build upon previous studies by demonstrating that visitors most often express emotions of momentary happiness physically and verbally. Moreover, utilizing observations to determine behaviors associated with momentary happiness provides a mechanism to measure positive emotions without introducing researcher bias (Diener, 2000).

Based on these findings, it can be seen that museums attract an array of visitors with varying baseline trait happiness levels and all visitors experienced some level of momentary happiness during their museum visit. The overall circumstance of the museum visit is a positive experience for visitors and most reported experiencing happy emotions during their visit. Most commonly, momentary happiness is experienced throughout the entire museum visit, but some visitors find increased momentary happiness due to a specific exhibit or activity. Moreover, less than half of visitors identified a frustrating experience. Visitors most often expressed emotion associated with momentary happiness through physical and verbal engagement with their

surroundings. Overall, these findings suggest that all visitors are experiencing momentary happiness during their museum visit in different ways and due to different circumstances.

Recommendations for Future Study

This study provides insight into how visitors think about and experience momentary happiness during their museum visit. Moreover, this study provides evidence of the occurrence of momentary happiness during the museum visit. Researching how momentary happiness is occurring in museums provides context to better understand visitor emotions and how and when they are experienced. It also provides insight into what specific aspects of the museum visit are enhancing or detracting from visitors' momentary happiness which can help museums create more happiness-enhancing opportunities and decrease negative aspects of the museum visit.

The methodology for this study presents one potential way other institutions could measure visitor momentary happiness in the future. Utilizing multiple aspects of Positive Psychology in this study provided a multi-pronged approach to capture visitor momentary happiness. The methodology from this study can be used to inform future research to determine what other factors may be influencing visitor momentary happiness. Museums need to begin to measure more than just visitor numbers (Butler, 2011; Whelan, 2015) and this study provides a robust way to measure one aspect of the visitor experience.

While this study focused on a finite number of factors to describe happiness, there are many other factors that could potentially have a relationship with happiness. As this study was structured as a descriptive study, there are numerous comparative analyses that could be explored. For example, future studies could have a deeper focus into the social context of a museum visit by comparing group composition and the visitors' relationship to their companions with what impact it may have on momentary happiness experienced during the museum visit.

Additionally, whether visitors are at the beginning, middle, or end of their museum visit could be examined to see if the amount of time spent, material seen, or mindset at that point in their visit impacts their levels of momentary happiness. Other contextual factors that could be explored include whether or not visitors are from out of state, on vacation, or first-time visitors to determine if these factors influence visitors' experienced momentary happiness. Examining these factors could provide insight into whether visitors under these circumstances are experiencing momentary happiness due to characteristics of the museum, or if there is a bias towards happiness because they are already happy due to external factors. Moreover, since data for this study was collected during a finite time period, collecting data from visitors across the day and year could provide additional insight into whether time of day, time of year, or other events occurring at the museum (such as free admission days) impacts visitor momentary happiness. This could also allow different audiences to be represented, since it broadens the potential audience that would be captured if data was collected across a wider range of times and days. Finally, visitor identities (Falk, 2009) or motivations could be examined to determine if they influence how and when visitors experience momentary happiness during their museum visit.

Observations also provide opportunities to further understand the different ways and situations in which visitors express momentary happiness. Specifically, it would be useful to examine the type and number of behaviors that are social versus physical to determine if the different types of behaviors exhibited have an impact on visitor momentary happiness.

Comparing age with type and number of behaviors could also be useful to determine if different age ranges express momentary happiness in different ways (i.e. do teens express momentary happiness differently than older adults?). Relatedly, examining social context for observed behaviors could also help determine what types and number of behaviors visitors exhibit when

they are alone, with friends, with a partner, or with their children to determine if these situations influence how they express momentary happiness during the museum visit.

Additional studies could also be done by collecting visitor interviews and visitor observations from the same audience to enable comparative analyses across methods. For example, comparative analysis could examine the differences between high arousal and low arousal environments and how visitors express momentary happiness. It could also provide insight into whether or not there is a relationship between the level and type of positive affect visitors experience and the type of behaviors they exhibit. Or it could be determined if observed behaviors associated with momentary happiness correspond to different types of satisfying experiences (Pekarik et al., 1999). Additionally, matched methods would also allow comparison of visitor self-reported levels of momentary happiness and the type and number of behaviors they exhibit. Looking at all of these comparisons could create a deeper, more well-rounded understanding of what is impacting momentary happiness in museums.

Moreover, while this study focused specifically on the momentary emotion of happiness, there are numerous positive emotions that visitors are experiencing during the visit, as seen by PANAS scores, as well as aspects of well-being that were not captured here. Researching additional positive emotions or aspects of well-being can provide added insight into the visitor experience. For example, there are many museums that are not designed to elicit happiness which deal with difficult topics or horrific events from history, such as a Holocaust museum. However, in these museums visitors still experience a range of emotions and well-being indicators such as meaning-making or experiencing gratitude (Lyubomirsky, 2008, Seligman, 2002). A museum visit is a rich experience with many nuanced outcomes and developing a

deeper understanding of emotion and well-being would be valuable in order to capture the full range of the visitor experience.

Implications

This study can be used to inform museum practices in multiple ways. Happiness as a construct is related to satisfaction (Diener, 2009; Lyubomirsky et al., 2005) and therefore, visitor momentary happiness could be reflective of visitor satisfaction. Paying attention to visitor satisfaction in museums is critical in aspects of marketing and membership (Dilenschneider, 2018). Marketing benefits from visitors who are happy since they are more likely to recommend their experience to others (Direshan & Azize, 2011). Word of mouth recommendations are the most critical factor in driving attendance, and if a recommendation comes from a trusted source, such as a friend or family member, people are more likely to pay attention to and act on that recommendation (Dilenschneider, 2018). This means that the more visitors that are recommending their positive experience, the more likely the museum will see an increase in visitorship. Moreover, the more satisfied someone is the more likely they are to have a return visit (Direshan & Azize, 2011). This means additional revenue as well as opportunities for them to become members which increases funding and support for the museum (Dilenschneider, 2018). Therefore, the museum benefits across multiple areas when visitors experience momentary happiness during their museum visit.

Happiness as a broad concept is a growing focus in museums (Merritt, 2016) as they begin to turn attention to how they can be catalysts for well-being and change (The Happy Museum, n.d.; Whelan, 2015). Developing a better understanding of visitor momentary happiness in museums is invaluable since much prior work has focused on the museum's ability to implement happiness-enhancing programs without a clear idea if that is truly increasing visitor

momentary happiness (Chatterjee & Noble, 2013; The Happy Museum, n.d.). This study fills that gap by demonstrating what visitor momentary happiness looks like in museums and which elements of the museum are important to visitor momentary happiness. Museums should consider these aspects as they move forward in designing, implementing, and measuring the visitor experience in this happiness and well-being conscious era.

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Appendices

Appendix A – Visitor Interview Instrument: Facilitated Questionnaire

Visitor Happiness Questionnaire

Date: _____ Time: _____ Instrument Number: _____
Museum: _____ Collection Location: _____

Hello, my name is _____. I am a graduate student at the University of Washington. I am interested in speaking with visitors about their museum experience, would you have a few minutes to answer some questions? (If no, thank them for their time; if yes, continue). Thank you for agreeing to speak with me. Participation is entirely voluntary and there are no right or wrong answers, I'm interested in your opinion. All of your responses will remain anonymous and confidential. Your response may be quoted, but no identifying information will be shared. Please feel free to skip any of the questions you feel uncomfortable answering. The interview should take no more than 10 minutes. Do you have any questions before we begin?

1. At which stage of your visit are you in?

- Beginning
- Middle
- End

2. Who are you here with today?

- Is this typically who you visit this museum with?*
- Who do you like to visit this museum with?*

3. What motivated you to visit today?

4. Did the reason you came to visit today influence where you went in the museum?
(Prompt: Do you think your reason for visiting influenced your level enjoyment at the museum? Or level of enjoyment within specific exhibits? (positive or negative influence))

5. The following scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to the word.
Indicate to what extent you feel this way right now, that is, at the present moment.

	Very slightly or not at all	A little	Moderately	Quite a Bit	Extremely
Interested	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5
Afraid	1	2	3	4	5

6. Can you tell me what your favorite or most memorable experience was during your visit so far today?
(Prompt: Was there a specific element in that experience that made you feel happy or positive?; What about that experience caused you to experience enjoyment? Why was that experience enjoyable?)

7. Was there anything that frustrated you or that could have brought more joy to your visit so far today?
(Prompt: *What about that experience caused you frustration?; How was joy lacking from that experience? What could have made it more positive?*)

8. Do you think of museums as happy places? Why or why not?
(Prompt: *What happy feelings do you associate with museums? What happy experiences do you associate with museums?*)

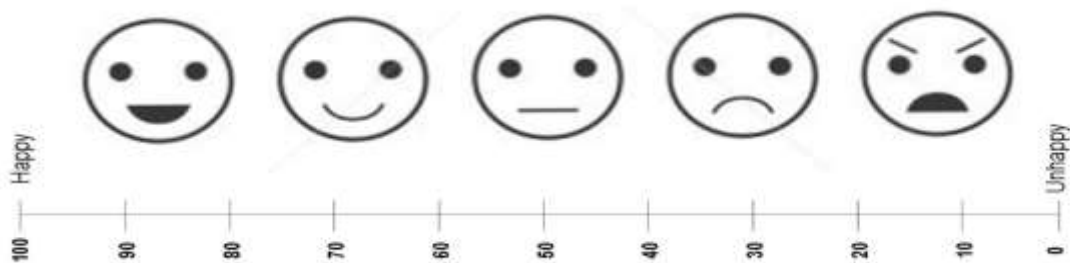
9. What does happiness mean to you?
(Prompt: *How would you define it? How would you describe it?*)

10. Can you describe how you feel when you are happy?
(Prompt: *What **emotions** do you feel when you are having a happy experience?: What **behaviors** do you exhibit? What kinds of things do you do when you are feeling happy? How do you physically express yourself?*)

11. Do you feel like you experienced those happy emotions during your visit today? At what point in your visit?
(Prompt: *What were they? When did they occur?; Did you express them in a way you normally would? Why or why not?; Did the things you just described to me (question 10) happen? Get the context in which these emotions happened*)

The final task will be for the participant to complete the following questions:

1. Please rank your overall level of happiness **during your museum visit today** by marking an "X" on the scale below:



2. Next, I would like you to complete a general happiness scale. Please rate the following statements **according to the scales next to them (they differ by question)**.

	Not a very happy person	A very happy person
In general, I consider myself:	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	5 <input type="checkbox"/>	
	Less happy	More happy
Compared with most of my peers, I consider myself:	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	5 <input type="checkbox"/>	
	Not at all	A great deal
Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	5 <input type="checkbox"/>	
	A great deal	Not at all
Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?	1 <input type="checkbox"/>	2 <input type="checkbox"/>
	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	5 <input type="checkbox"/>	

3. Age Range

- 17 and under
- 18-25 years
- 26-35 years
- 36-45 years
- 46-55 years
- 56+ years

4. What is your gender? _____

5. What is your race/ethnicity? _____

6. Who are you here with today?

- I'm here by myself
- I'm here with other adults
- I'm here in a mixed group of adults and children

7. US Zip Code or International Country: _____

8. Have you visited this museum before?

Circle: Y or N

Appendix B – Visitor Observation Sheet

Date: _____ Time: _____ Instrument Number: _____
 Museum: _____ Collection Location: _____

*Researcher will observe visitors from a distance.
 Individual adults in various group compositions will be observed.
 Observations will be focused on visitor interactions and behavior within a specific area of the museum.*

Time spent: _____ Group composition: _____ # of adults _____ # of children

Estimated Age Range:

- 17 and under
- 18-25 years
- 26-35 years
- 36-45 years
- 46-55 years
- 56+ years

Observed Gender: _____

Crowdedness level:

- Empty (0-25% capacity)
- Moderately visited (25-50% capacity)
- Crowded (50-75% capacity)
- Extremely crowded (75-100% capacity)

Make tally marks whenever behaviors happen:

Behavior	Observed Instances	Observation Notes
Smile (S)		
Laugh (L)		
Engages with or participates in something (exhibit/interactive) (E)		
Watching someone else engage with or participate in something (W)		
Point to something (P)		
Nodding (N)		
Lean in toward someone or something (LI)		
Shows excitement/energy/enthusiasm (EE)		
Displays boredom or disinterest (BD)		

Talk with others in group (G)		
Talk with others not in group (NG)		
Talk with staff or volunteers (SV)		
Call someone over to share something (CS) (i.e. "Hey, look at this")		
Ask someone a question (Q)		

Appendix C – Additional analyses

This appendix contains analyses that were done in the process of examining the data and were not included in the final narrative.

Description of Sample: Interviews

Analysis was done in order to further understand who visitors would like to have accompany them during their museum visit. Out of the 23 respondents who were not visiting with people who they would usually visit with, nine were with friends and family, seven were visiting the museum alone, six were part of an organized group, and one was visiting with colleagues. The fourteen people who were alone, in an organized group, or with colleagues said that they would typically want to visit this type of museum with family (8 respondents), friends (2 respondents), friends and family (1 respondent), or a future partner (1 respondent); two visitors did not respond with whom they would visit. Out of the nine respondents who were with friends or family, four responded that they would typically come with their kids, two mentioned family, one mentioned friends and family, and two respondents did not give a clear answer or did not follow-up. There were also twenty-two respondents who were with typical companions for a museum visit that also mentioned other people with whom they would like to visit the museum. These respondents mainly mentioned kids (36%) or family (36%) followed by friends (23%); twenty-three percent of respondents also mentioned that they would not usually come with specific members of the group they were with that day and 14 percent mentioned specific individuals with whom they would like to visit. Overall, there was a total of fifty respondents (22 who were with typical companions, 22 who were not with typical companions, and 6 people for whose answers were unclear) who mentioned other people with whom they would visit: 18 percent mentioned a specific individual, 18 percent said they would not visit with certain members of their group, 32 percent mentioned their kids, 38 percent mentioned family, 22 percent mentioned friends, and 14 percent mentioned another individual or did not list anyone. This data helps to provide context into whether or not group context is reflective of a visitor's typical museum experience.

Happiness in the Museum

For visitors that answered the question: do you think of museums as happy places as “no” or “depends” the reasons why they gave their answer were broken out.

Visitors who said "no" most frequently (46%) described museums as "not happy, but interesting..." or some variation on that, followed by 27% of visitors who had a negative perception of museums such as they are boring or monotonous.

Visitors who said "depends" most frequently (56%) said that it was dependent on the museums subject or discipline, followed by 22% who said museums weren't happy, but interesting... 22% of these respondents also described museums in a positively affective way.

How do visitors express happiness in museums?

Observations were broken out into three categories: Facial expression, Engagement behaviors, and Verbal behaviors to determine what types of behaviors may influence how visitors express happiness.

- Facial expression behaviors (n=180) consisted of when participants smiled or laughed.
- Engagement behaviors (n=597) were the most frequently occurring type of behavior. Engagement behaviors were characterized as when visitors interacted with an object or exhibit or participated in an activity alone or with someone else, when they watched someone interact with an object, exhibit, or activity, when they performed physical gestures of pointing, nodding, or leaning towards someone or something, or when they showed excitement, energy, or enthusiasm.
- Verbal engagement behaviors (n=429) were characterized as any behavior in which the visitor spoke with someone in or outside of their group.

Appendix D – Coding Rubrics

Observations:

Engagement Behaviors:

- Engages with or participates in something such as an exhibit or interactive
- Watching someone else engage with or participate in something
- Point to something
- Nodding
- Lean in toward someone or something
- Shows excitement/energy/enthusiasm

Verbal Behaviors:

- Talking with others within their group
- Talking with other visitors who are not in their group
- Talking with staff or volunteers
- Call someone over to show them something or share something
- Ask someone a question

Facial Behaviors:

- Smiling
- Laughing

Boredom or Disinterest Behaviors:

- Checking their phone
- Not engaging with the group

Questionnaire:

Question 2: Who are you here with today?

	<i>Code</i>
1	Family
2	Partner/Spouse
3	Friends
4	Alone
5	Organized Group
6	Colleagues

Question 2a: Is this typically who you visit this museum with?

	<i>Code</i>
1	Yes
2	No
3	Unclear/Maybe

Question 2b: Who do you like to visit this museum with?

	<i>Code</i>	<i>Examples</i>
1	Someone they are not with (stated that this person was not with them for this visit)	he is by himself, but would normally come with the whole family; they would normally bring their kids
2	Less people than they are with/Without certain people they are with	usually just one parent comes to the museum; with son and friend but would usually just come with son; would also come alone
3	Their kid(s)	Daughter; son; their kids
4	Family	“Family”
5	Friends	“Friends”; friends who have specific interests or hobbies that match the museum
6	Other	It was their first time to anything like this; a future girlfriend; with out of towners

Question 3: What motivated you to visit today?

	<i>Code</i>	<i>Examples</i>
1	Education: To learn something	For kids to learn some science stuff; daughter needs some “high ed”
2	Social experience	Kids have the day off; both parents were off, first time they all visited together; group outing; friend had never been; great way to spend the day together
3	Entertainment: To have a new experience	Outside of the norm; they always have fun new things; never been here before, wanted to check it out
4	Entertainment: Participate in something	give kids something to do; free time; looking for different activities in the city; getting out of the house
5	Entertainment: Interest/to do something they're interested in (have a meaningful experience)	Seemed interesting; wanted to see a specific exhibit; wanted to try out a new camera lens; just interested
6	Place: They find the surroundings comforting/comfortable	came to have a relaxing day
7	Entertainment: To do something enjoyable	Something fun to do; wanted an interesting date; they like going to museums
8	Place: Out of towners/They are on vacation OR they have visitors	in town and wanted to see it; in Seattle for the weekend; their visitor wanted to come; visit every time they're in town

9	Practical: members	member of a larger organization; member at the museum
10	Practical: weather	Weather; it's sunny; it's indoors (raining outside); get out of the rain
11	Social Event: Group member wanted to visit	Son has been dieing to come back; his wife picked it out; grandkids wanted to come
12	Other	Daughter was volunteering there; try to see every museum in every city they live in; past experience, have been coming for many years
13	Place: The exhibit or museum looked cool/interesting	Liked how the outside looked, thought it was neat; the building itself is attractive; the architecture; theater looked cool
14	Practical: Nearby	Were in downtown Seattle; on the way to the airport; happened to be close by doing business
15	Practical: Discount or CityPass	Bought CityPasses for the weekend; had a coupon; had partial admission tickets
16	Practical: Recommendation	Sister-in-law recommended; daughter had come before; told by a friend it's a nice place to go
17	Practical: Haven't been in a while	Haven't been in a few years; haven't been in a while
18	Practical: There for a specific event	Pastor had a convention at the museum; had a class at the museum; work related event

Question 4: Did the reason you came to visit today influence where you went in the museum?

Coded yes (1) or no (2); yes responses were further coded with the following rubric:

	<i>Code</i>	<i>Examples</i>
1	They (or someone in the group) wanted to see specific exhibits	Granddaughter wanted to see the butterflies; read more about airplanes; wanted to see the new exhibition
2	Following someone around or doing activities for someone in particular	Went to the kids area; following son to what he thinks is interesting; kids picked where to go
3	Have been before, seeing their favorites	See their favorite things: dinosaurs and butterflies; they've been there before so know where to go; remembered fun exhibits from last time, wanted to see them again

4	Impacts where they started in museum, but still plan to see everything	Wanted to see WWII planes first, then wander around; where they started, but wanted to see everything
5	Other	Seeing the interesting things that are here, have never been before; not going into some of the exhibits because not interested

Question 6: Can you tell me what your favorite or most memorable experience was during your visit so far today?

Rubric for experience type:

	<i>Codes</i>	<i>Examples</i>
1	<i>Experience-based</i> : seeing a show, attending a seminar, etc.	Science combustion show; live science air show; attending seminar on modeler
2	<i>Experience-based</i> : watching someone do/enjoy something	Seeing her daughter in engaged in stuff; watching what her kids were doing, playing with puzzles and tinker tank;
3	Interactive/immersive exhibit	Red disc thing; floating mirrors; Indie games; Sound Lab; walking into the 737
4	IMAX/movie/watching a video	Hurricanes movie; Amazon IMAX; horror films
5	Static exhibit (exhibits where you just look at stuff)	The bugs; space sphere; Nirvana; Blackbird plane
6	Nothing specific	Nothing yet, just started; not yet

Rubric for why that experience was the visitors favorite:

	<i>Code</i>	<i>Examples</i>
1	Uses affective language (love, fun, etc.)	Love all the bugs; make you laugh, they're funny; fun to experience it; thinks it's really cool and really likes music
2	Shows a personal interest, or finds it interesting	Interesting info; very interesting; likes Nirvana the best; really relate to that music scene and movement; my entire family is into fantasy; interest in Apollo due to personal connection
3	Experiences enjoyment	Fun watching everyone; fun to see what's going on in real life; enjoyed the subject of Horror;
4	Learning/Challenging	They challenged me; cool to see how things work, very educational; learned

		more about butterflies; noticed that 737 had more leg room back then; learned knowledge about Apollo
5	How things are displayed/getting to see the stuff	Liked seeing the things that were Jimi Hendrix; liked seeing Nirvana artifacts; Blackbird was larger than he thought it would be
6	History of things	Grew up watching Star Trek, liked seeing actual costumes and displays, different than what you see on TV; brings back memories;
7	Participation/interaction (with the exhibit or with others)	Got to play the instruments in Sound Lab; Hurricane simulator; watching the planes from the control tower; cool to sit in the Blackbird cockpit
8	New experience	First time seeing the shape of the Blackbird plane; never seen the Lockheed constellation out front; never seen anything like the phase room in Star Trek exhibit; new Indie Games she's never seen/played
9	Other	Daughter was most captivated by playing the guitar out of everything they saw; grandson got into it and took photos for a friend back home
10	No follow up	Did not expand on experience, or said they hadn't experienced one yet

Question 7: Was there anything that frustrated you or that could have brought more joy to your visit so far today?

Coded yes (1) or no (2); yes responses were further coded with the following rubric:

	<i>Code</i>	<i>Examples</i>
1	"Negative" perception toward exhibits: disliked the exhibit, felt like something was missing from it, or felt like they were missing something specific (wish they could see something)	Didn't like cockroaches, would have liked a warning; wellbody is a little overboard on some things, turns it into a game; Fantasy is missing Neverending Story; didn't like some of the Indie Games
2	Comfort aspects (jacket storage, long lines, traffic, parking)	Had to hold their jackets before they found lockers; traffic; entrance line was too long, parking lot is too small
3	Issues with membership/admission	Confusion over dual membership upon entry; issue with NARM membership that

		took 10 minutes to resolve; some people in the group didn't come in because of the price
4	Missed opportunities to enhance exhibit/learning (better instructions, different ways to show stuff, timing)	Conflict between IMAX and live science show, so had to miss part of show to go to IMAX; toilets are a missed opportunity to explain something scientific or display some sort of information; not a lot of direction on some stuff; more hands-on things; unclear instructions, no guidance in Indie Games
5	Exhibit not working/out of order	Several things are out of order; a few machines weren't working properly; some exhibits were out of order; beehive wasn't ready yet
6	Wayfinding (getting lost, not understanding map, unclear signs etc.)	Moved virtual reality last week so had to wander around to find it; walked through café entrance, confused about where to go and who to give tickets to; ended up in some dead ends due to exhibit rebuilding/construction; layout of museum is confusing
7	Crowds	A little crowded; a lot more crowded than she prefers; there's a lot of people here, doesn't like people
8	Negative interaction with someone	Friend is on their phone; people were being loud and obnoxious in an exhibit; attendant bent map, which she likes to collect; some visitors were controlling their kids and they were almost damaging displays, it's a bit disrespectful
9	Food/drink related	Wish café was more prominent on the first floor, feels like it closes early on the weekend and they would stay longer if they could eat here; Having a cocktail would bring more joy; free coffee would be nice; wishes she could bring in her coffee
10	More time/better time management	Should have planned more time here; wish she could have seen planetarium show; wish class was shorter so they'd have more time to explore
11	Other	Daughter wasn't tall enough to ride the simulator, very disappointing; more

		variety in exhibits; see more new exhibits; there's so much to see, it's overwhelming
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Question 8: Do you think of museums as happy places? Why or why not?

Coded yes (1), no, or not always (2), and depends (3); responses were further coded with the following rubric:

	<i>Code</i>	<i>Examples</i>
1	<i>Object-based experience:</i> Seeing the "real thing" (object based)	Cool stuff you don't see all the time; nice to look at all kinds of different things; always something interesting to look at; amazing airplanes; seeing things directly
2	<i>Object-based experience:</i> Seeing rare/uncommon/valuable things (object based)	Like a celebration of things people have made; cool stuff, makes stuff important; things you don't see in everyday life; seeing things that aren't anywhere else
3	<i>Object-based experience:</i> Being moved by beauty	Butterflies are magical; they have a lot of beauty and richness that everyone should enjoy
4	<i>Object-based experience:</i> Thinking what it would be like to own such things	No responses in this category
5	<i>Object-based experience:</i> Continuing my professional development	Put together his own museum in Alaska, like to keep/save things and show people who aren't familiar with them; was an art minor, enjoys preservation of the arts
6	<i>Cognitive Experience:</i> Gaining (new) information or knowledge	See art and science and to learn; learning; fun to learn new things and explore; places of learning and learning is happy
7	<i>Cognitive Experience:</i> Enriching my (current) understanding	I'm a nerd, I've always liked science; I like going to them and seeing what they have to offer; art history minor, likes art
8	<i>Introspective Experience:</i> Imagining other times or places (reflecting on history)	We get to learn where we came from, all the things that make us what we are, our world; objects hold meaning and history, stories to learn from; very much into history, seeing historical artifacts and stories is enjoyable; there's so much history
9	<i>Introspective Experience:</i> Reflecting on the meaning of what I was looking at (people doing great things, things you don't normally think about)	Experience things you don't normally think about; makes you think, different experience than normal life

10	<i>Introspective Experience:</i> Recalling my travels/childhood experiences/other memories	Brings happy memories; grew up in DC, so go to museums often; parents used to bring her to museums as a kid, trying to do the same for her kids
11	<i>Introspective Experience:</i> Feeling a spiritual connection	In awe of God's creation
12	<i>Introspective Experience:</i> Feeling a sense of belonging or connectedness	It's like home; you can go to your own place
13	<i>Social Experience:</i> Spending time with friends/family/other people	Family-oriented; people come to museums because they want to be together, can enjoy anything with the right people; brings family and friends together
14	<i>Social Experience:</i> Seeing my children learning new things/kids enjoying themselves	Kids love it; lots of kids learning and interacting; lots of info for kids, good place for kids
15	<i>Positive affect</i> (happiness, joy, excitement, fun, curiosity, exploring, love, inspiring, general affect)	Awe; love science; fun to explore; I love it; good content makes you warm and fuzzy; pleasant experience; fun
16	<i>Positive affect</i> (contentment, calm, peaceful, satisfied, etc.)	Gets the feeling of peaceful environment; low stress; place where it's relaxed; relaxing
17	<i>Eudaimonia:</i> Sense of fulfillment, accomplishment	No responses in this category
18	<i>Eudaimonia:</i> Sense of purpose and meaning	No responses in this category
19	<i>Other Eudaimonic traits</i> (optimism, interest/engagement, self-worth, autonomy, etc.)	Engaging, makes you think; thought provoking and enriching activities; inspiring to see what other humans create; interesting
20	<i>Servicescapes:</i> Atmosphere related	Peaceful environment; some museums have different moods, can feel gloomy or not well attended, PSC is definitely looked after and kids bring it to life, the colors and spaces are great, it's cheery and interesting; color makes them happy places
21	<i>Servicescapes:</i> Layout and functionality of space (includes interactive/interactivity comments)	Interactive; some infrastructure is average; kids can learn with their tangible feelings: hands-on; it's hard not having a place to sit in museums
22	<i>Servicescapes:</i> ease of using signs, symbols, and artifacts in a space	IMAX is great, museums are costly
23	Mentions Holocaust museum	Unless Holocaust museum; not like Holocaust museums; except for Holocaust museums which are not happy

24	Discipline/subject dependent	Science museums-yes, art museums-no; depending on the subject, a negative personal tie could bring up not happy emotions; type of museum, some make you happy some make you sad
25	Negative perception of museums (boring, dislike topics, monotonous, etc.)	I think of museums as boring, you just walk around and look at stuff and if you're not interested in the topic...; usually need to be quiet, can't touch anything; they're usually boring
26	Not happy, but interesting... (or similar variation)	I like to learn, but not considered a happy place; I wouldn't say it's happy, it's more educational, but it's not sad; more relaxed than happy, place to learn something
27	Reference to museums cultural role/role in society (includes preserving history)	Experiencing something culturally adds value to her day; everybody has a story, it's a shame when they get lost, anything that preserves them has great merit in his view
28	Personal interest in the material or subject	I enjoy museums, love going to art museums; look around and find things that you like
29	Other	Experience something new; typically not forced

Question 9: What does happiness mean to you?

	<i>Code</i>	<i>Examples</i>
1	<i>Cognitive Learning</i> : education/learning new things/intellectually engaging	
2	<i>Object Experience</i> : experiencing new things/seeing new things	To experience new things
3	<i>Introspective</i> : learning something new about yourself	Feeling like something buried and you find something new about yourself
4	excitement/enthusiasm/enjoyment	Enjoying life to the fullest; enjoyment; slight excitement or more interest than normal about something; excited about making discoveries
5	<i>Positive affect words</i> : joy, fun, happy, positive	joyful; anything that makes you produce a positive emotion; warm, fuzzy feeling
6	<i>Physical behaviors</i> : being active, laughing, smiling, sensory pleasure	Joy in their smile, laughter; smiles, laughs; active
7	feeling good/having a good time/things are going well	Feeling good; you feel good; good vibe; having a good time; everything is going good

8	<i>Positive Affect</i> : peace, comfort, general contentment/satisfaction/at ease	Feeling of contentedness; overall feeling of peace; peace of mind; being content with where you are and what you're doing; being content and satisfied with whatever you're doing, with what your life's work is
9	Feel safe	Feel safe; feeling of security
10	Lack of negative emotions (anxiety/stress/worry; sadness/upset; fear/afraid)	Lack of anxiety and fear and sadness; not thinking about negative things in life you often have to deal with; not worried
11	doing things that you like/ having things that I want	You can have something to do and free time to do as your want, balance between free time and work; you get what you want; doing things because she likes them
12	<i>Eudaimonia</i> : accomplishing something meaningful/personal fulfillment/ working towards something better/contributing to society	Having a sense of personal fulfillment; being fulfilled in life; working towards something better; contributing to society
13	<i>Social experience</i> : being with family/loved ones	Being with my family; when you're with positive people or people who make you happy; time with his family; being with people you love
14	<i>Social experience</i> : seeing kids happy/learning/enjoying; love/learn/experience new stuff	Makes him happy to see his kids learning and experiencing stuff; seeing her child happy
15	<i>Introspective Experience</i> : sense of connectedness/togetherness	Connectedness; companionship; togetherness
16	<i>Social experience</i> : sharing experiences	Sharing; sharing things with people who appreciate the things you appreciate
17	respectful of others/perspectives	Respect for different perspectives
18	<i>Extent</i> (the environment has sufficient content and structure that it can occupy the mind for an extended period): momentary experience/embrace the environment around you/living in the moment/engaged with surroundings	Enjoying the environment and activity you're doing; embracing the wonderful environment around you; living in the moment; going with the flow; being engaged with the world
19	<i>Other</i>	release of chemicals/happiness is important to them/know it when you feel it/various factors influence it/Jesus Christ, spiritual connection/things happen beyond expectation/leisure time/feel that way most of the time/sense of independence/not working or good balance or alignment/specific scenario recalled/not being rushed, no plans,

		unhurried/helping others enjoy life/a way of life/realizing what you have/confidence that everything is going to be okay/respectful of different perspectives/etc.
99	Skip	Chose not to answer the question
20	Memories	That moment is a good memory; having a good time, making memories; memories being made
21	Health	Good health; being healthy
22	A feeling, mood, attitude / an emotion/ a sense of well-being/ overall happiness	An attitude; a feeling; an emotion; feeling of well-being; an attitude as well as a feeling
23	<i>Positive affect words:</i> inspired, creative, interested, exploring, discovering	Excited about making discoveries; being inspired; exploring; creativity; interest

Question 10: Can you describe how you feel when you are happy?

	<i>Code</i>	<i>Examples</i>
1	Joyful/happy	Joyful; joy in life; general happy
2	Euphoric/excited/elated/ecstatic/enthusiastic/blissful	A little euphoric; blissful
3	Good/positive/warm/light/nice	Good; feel positive; positive; warm; warm fuzzies; the world is right
4	Interest/ Curiosity/Discovery	Exploring new places; interest; curiosity
5	Loving/Feel loved	Loving; feel love
6	Satisfied/content/proud(?)/confident(?)	Satisfied; proud; content
7	Hyper-active/more hyper/energetic/dramatic/alert/activity/bubbly	A little dramatic sometimes; energetic; alert
8	<i>Verbal manifestations:</i> chatty/more likely to engage with others/pleasant to talk to	More likely to engage with student data collectors; talkative; pleasant to talk to
9	<i>Physical manifestations:</i> Smiling/laughing/shout/dance	Smile when I'm happy; a lot more smiling and laughing; laughing a lot; physically feels great
10	Sensory information/looking at things/Engaged with surroundings	Enjoying sensory information; he's a visual person so he finds joy in looking at things; engaged with surroundings
11	No cares/worries/anxiety/stress; Not frustrated/angry	I have no cares; not frustrated; lack of anxiety; not worrying about anything
12	Enjoyment in the moment/losing yourself in the moment	Enjoying the moment; enjoy situation you're in; more in the moment
13	Anticipation/looking forward to something/good future expectations	Looking forward to something; anticipation; good future expectation; looking forward to doing things

14	Feels like doing things/open	Motivated to do stuff, makes him want to get outside; doing what she likes; open; willing to be outgoing; go out more, meet new people
15	Like anything is possible/inspired/optimistic/on top of the world/thinks everything is perfect	Feel like anything is possible; inspired; inspired to achieve new goals; optimistic
16	<i>Eudaimonia</i> : Fulfillment/accomplishment/something has meaning	Accomplished; joy in helping students with art; something has meaning; something outside ourselves give us reward
17	<i>Social experience</i> : Doing something with family or friends/playing with kids/good company/togetherness/meeting people	Involved in something with family or friends; usually with good company; meeting people, togetherness
18	Concentrate better/focus on present/a sense of place	A sense of place; sometimes better able to concentrate on something without distractions; more focused on the present
19	Distracted/takes mind off of the daily grind	Take mind off daily grind, good distraction; kind of forget about day-to-day problems
20	<i>Other</i>	Whole range of human emotions/more humorous/I feel different/happiness is a chemical response in our brain/something outside of ourselves gives us a reward/more prone to emotion; emotional/all needs are met; want for nothing/normal; nothing, should be the same/feels goodwill towards people/describe specific scenario/not a lot of thinking/endorphins are flowing, go in the flow of happiness/thankful/a little touch of mischievousness/spontaneous/fearless
21	Not sure how to answer/don't know	Don't know how to answer that; I'd have to ponder that for awhile
22	Relaxed/calm/peaceful/quiet reflection	relaxed, calm; at ease; peace; calm and at peace
99	Skip	Chose not to answer the question

Question 11: Do you feel like you experienced those happy emotions during your visit today? At what point in your visit?

Coded as yes (1), no (2), or maybe (3); responses were further coded with the following rubric:

	<i>Code</i>	<i>Examples</i>
1	All/throughout/no specific experience	All so far; most points; the whole time; throughout entire visit
2	As soon as they arrived/left the house	From the minute she arrives she was excited, even before she left the house she was excited; when they first got here and the kids saw where they were; when the decided to come in
3	General happiness due to experience at museum, being on vacation, typical disposition, etc.	Already happy; they're on holiday so overall feeling good; first time in Seattle, excited to be here and check out a museum
4	Being with family/people you love/engaging in the experience with a group member	Being with family, people you love; quality time; sharing moments with group, getting to know them better
5	Watching wonder/excitement in kids; watching kids enjoy/engage/learn/be creative/play	Watching the wonder and excitement in granddaughters faces; watching the kids play; kids tried to touch the 3D in IMAX; watching kids enjoy and engage with science show; watching the kids be creative together
6	Playing/sharing/goofing off/laughing/being with kids	Laughing and being with her kids; playing with his son
7	Interacting with own thoughts, away from group (Introspective)	When he detached himself from the group and he was able to interact with his own thoughts; had different inner experiences so enjoyed sharing those with each other
8	Interaction with others (non-group): meeting nice, new people/people watching/talking with me	Talking to me; watching people, especially young people; great high school orchestra was playing when they arrived; positive interaction with a security guard
9	Memories with someone or things on display/going back to childhood/recalling when in school	Going back to ask if you were in school; going back to childhood; thoughts from when he was a kid and how it's the same now, making connections
10	Specific exhibit or object mentioned	Seeing the bugs, I love this stuff; granddaughter became excited at the dinosaurs and jumped up and down; during IMAX; playing the games; happier once in butterfly room
11	General positive statement about objects: artifacts were well done	Almost everything he's seen has been new so he thinks it's good; excited what they could find and learn about today; always looking forward to seeing the exhibits

12	New experience/seeing new things, things they haven't seen before	Almost everything he's seen has been new so he thinks it's good; seeing things he hasn't seen before in real life makes it enjoyable; generally happy because a lot of new things she wants to see
13	Learning about topics/Reading and browsing the exhibits	Learned some stuff himself during the live science air show; most of the sessions in the space area had interesting information; looking around and reading, browsing; learning about aviation
14	Enjoy seeing society's accomplishments, how far we've come	The whole space journey makes her happy to know we did that, all those accomplishments; seeing how far people have come
15	Personal connection with objects: seeing the old stuff lifts you up/topics most interested in/loves the stuff	Seeing the old stuff lifts you up; I'm all about the bugs; making connections; most personally connected to Jimi Hendrix and Nirvana
16	Atmosphere is well done/Inspiring space	High school orchestra set a nice tone for the visit; being in an inspiring space; atmosphere and artifacts are well done; like that it's bright and sunny; visually beautiful today
17	Just started/no experiences yet	This is the first place they've stopped; just started; haven't gone to much yet; no specific point yet because they just started
18	Expects to feel happy later, but hasn't yet	I think I will, I don't know that I have so far; may at times, not yet; I will but haven't yet
19	Other	Escape the world/Worth the trip/something for everyone
99	Skip	Chose not to answer the question