



In Search of the Transformational:

Evaluating Exhibitions to Enhance Museum User Experience

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Abstract

The following research proposal describes the *Project* I will be undertaking in partial fulfillment for the MS Arts Management degree, and Museum Studies Certificate, I am pursuing at the University of Oregon. This study will examine how exhibit design can be best executed to enhance museum user experience. The research will initiate with a literature review, which will form the foundation of the development of an evaluation rubric. The presence and use of eight key elements will be evaluated in pre-existing exhibitions to determine if the exhibitions engender a transformational experience. Utilizing an auto-ethnographic methodology, I will evaluate exhibitions at eight Pacific Northwest museums. The eight museums are representative of four different types of museums: the art museum, the science center, the historical center, and the anthropological museum. The evaluative data will be compared across institutions to identify similarities and differences in employing the eight evaluative elements. By comparing and contrasting the use of the eight elements, this study will propose a method of exhibition design that can engender a transformative museum experience.

Keywords

Multimodal Exhibitions, Interactive, Embedded Technology, Transformative Museum Experience, Aesthetics, Emotionality, Collaborative Participation, Education and Comprehension, Immersive Environments, Visual Thinking Strategies, & Exhibition Design

Introduction and Background

The National Association for Museum Exhibitions published *Standards for Museum Exhibitions and Indicators of Excellence* in 2012 that include seven essential considerations for museum exhibition development, design, and implementation. In the section dedicated to indicators of excellence the concept of a “transforming experience” was highlighted as a sign of a particularly exemplary exhibition. This qualitative assessment is comprised of many elements and this study *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience* starts with these indicators of excellence to develop an exhibition evaluation rubric.

A growing trend in museum exhibition design is to move from an object focused curatorial perspective to a visitor-centered engagement experience. As described by Sunghee Choi in her article *Relational Aesthetics in Art Museum Education: Engendering Visitor’s Narratives Through Participatory Acts for Interpretive Experience*, “visitors will continue to objectify artworks until they specifically engage...cognitively, emotionally, and/or physically...” (Choi, 2013, p. 51). This sentiment is echoed in Maggie Stogner’s article *The Media-enhanced Museum Experience: Debating the Use of Media Technology in Cultural Exhibition*. She describes the evolution of exhibitions, which initially incorporated “hands-on” interactive elements, then developed a “minds-on” educational approach, and now embrace a holistic “hearts-on” approach to design that encourages an empathetic experience for the museum visitor (Stogner, 2009, p. 387). It is in this “hearts-on” experience where transformational moments occur; this study explores the potential for transformational experiences in exhibits across a variety of museum types. This study will employ eight elements to evaluate museum exhibits to determine if they can inspire a transformational experience; the eight key elements include aesthetic robustness, education and comprehension, visual thinking strategies, emotional evocativeness, interactive elements, embedded technology, immersive environments, and collaborative participation.

Museums are social environments where informal learning occurs, the educational experience is created through a marriage of objects, technologies, participation, and interaction. A preliminary technique that museums employed was to install an exhibition with a multimedia aspect that relies on a

single user interface and employs a screen. Kate Mondloch in her book *SCREENS* unpacks the various obstacles that screen viewing and interaction can pose for viewers (Mondloch, 2010). Christian Heath and Dirk Von Lem in their article *Interactivity and Collaboration: new forms of participation in museum, galleries, and science centers*, unpack the need to consider museums as social environments (Heath et al., 2003). These two perspectives recommend that the single user interface is becoming not only obsolete, but also a potential barrier to collaborative participation. Museums are environments that host community experiences enlivened by the collections and art objects; implementing a strategy that encourages communal interaction, education, and collaboration is suggested because this will allow museums to continue to enhance user experience.

This study will produce a multi museum evaluation that compares and contrasts eight primary elements that contribute to engendering transformational museum experiences. The eight Pacific Northwest museums represent four of the common museum types. Little research has been conducted that examines exhibition design across a variety of museum types. This study endeavors to distil the common effective exhibition design elements used across museum types to help inspire a transformational experience for museum users.

Conceptual Framework

The National Association of Museum Exhibitions published the *Standards for Museum Exhibitions and Indicators of Excellence*, which outlined basic exhibition design requirements and highlighted key elements of exceptional exhibits. The indicators for excellence establish the foundational elements of this study (NAME, 2012). The *Standards for Museum Exhibitions and Indicators of Excellence* identify an exhibition's ability to have a transforming effect as a key indicator of excellence. *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience* employs an evaluative rubric aimed at ascertaining if an exhibition engenders a transforming experience. This study looks at museum exhibitions from a variety of museum types so that elements of design can be identified to enhance all museum exhibitions: there have been few evaluative studies that examine evaluations across museum types.

Ranjit Makkuni, exhibition designer and architect, has created exhibitions that embody the transformational experience (Makkuni, 2007). Makkuni created the *Eternal Gandhi* museum in New Delhi, India, and incorporated interpretive educational material, interactive technology, and audience collaboration, while implementing an inspired aesthetic harnessing the creative power of indigenous craftsmanship. Makkuni's work is exemplary in engendering an emotional experience while providing historical education and employing innovative interactive technology. His work has garnered him international design awards and, in terms of this study, is considered exemplary of excellent design that engenders a transformational experience.

The Dallas Art Museum undertook an eight year project to ascertain how best to serve their museum constituents; *Ignite the Power of Art, Advancing Visitor Engagement in Museums*, is the publication that details their project (Pitman et al., 2010). The goal of their study was to enhance all of their museum user experiences by tailoring interaction that was both personal and inclusive. The Dallas Art Museum has been identified as an exemplary institution that has invested in transformational and enhanced experiences. The Dallas Art Museum identified four key museum visitors that engage with art

in different modalities. The four archetypes include: *observers*, *participants*, *independents* and *enthusiasts* (Pittman et al, 2010). Observers are “somewhat tentative about looking at art and being in museums... they are the least comfortable analyzing... their experience” (Pittman et al., 2010, p. 44). To enhance *Observers* experiences, the Dallas Art Museum recommends enhancing the physical aspects of their visits (parking, guest services, etc.), orienting the visitors with clear way-finding materials, providing introductory information on how to look at art, providing fun entertainment, emphasizing participation with family and friends, and using straightforward language (Pittman et al., 2010, p. 52).

Participants enjoy learning and socializing, they connect with art through performative avenues (dance, music, and drama), they actively use interpretive resources, and they reflect on meaningful experiences with art (Pittman et al., 2010, p. 55). The Dallas Art Museum identified ways to serve this constituency by creating opportunities for social and intellectual art engagement, utilizing performative entry points, providing a variety of communication programs, encouraging collaborative participation with friends and family, and offering opportunities for art making (Pittman et al., 2010, p. 62).

Independents enjoy solitary art viewing, they engage with artworks on an emotional level, they passionately reflect on their experiences and interpretations of artworks, and enjoy a slowed-down museum experience (Pittman et al., 2010, p. 64). The Dallas Art Museum identified ways to serve this constituency by creating avenues for *Independents* by engaging with and interpret art on their own, by encouraging freedom of choice with museum exhibitions, by offering intellectual programming, by encouraging looking closely at works of art, and by providing primary source information (Pittman et al., 2010, p. 73).

Enthusiasts are confident and socially engaged, they connect with works emotionally and intellectually, they enjoy performative avenues and a wide variety of programming, they enjoy discussing interpretation, and they regularly use interpretive material (Pittman et al., 2010, p. 75). The Dallas Art Museum identified ways to serve this constituency by providing dynamic programming that explores the meaning of works of art, by encouraging social interaction, by offering a wide variety of entry points and

interpretive material, by creating participatory experiences, and by demonstrating of how works of art link to real life (Pittman et al., 2010, p. 82). The Dallas Museum of Art undertook their study to understand how their institution could best serve all of their constituents.

Both Makkuni and the Dallas Museum of Art employ the key elements that the National Association of Museum Exhibitions identify as indicators of excellence: innovative aesthetic design, presenting a new perspective on a topic, presenting information in a surprising or provocative manner, incorporating audience collaboration and participation, cohesive incorporation of interactive technology, evoking an emotional response, and engendering a transformational experience (NAME, 2012, p. 5). The primary research tool employed by *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience* is an exhibition evaluation rubric based on the *Standards for Museum Exhibitions and Indicators of Excellence*. The evaluative rubric explores: aesthetic robustness, emotionality, education & comprehension, implementation of technology, interactive elements, collaborative participation, immersive environments, and Visual Thinking Strategies.

The Conceptual Framework presented in Appendix A illustrates how the key elements of exceptional design work together to enhance museum user involvement by engendering a transformational experience. The exterior petals of the flower each represent one of the eight evaluative measures, they join together at the receptacle to form the center of the flower, which, conceptually, is exhibition design, from the receptacle blossoms the ovule of a transformational museum experience. For the purposes of this study, an enhanced museum user experience is a transformational experience. As the Dallas Museum of Art study illustrates, there are a plethora of ways for individuals to engage with museum exhibitions, hence the experience of the transformational is a particularly singular thing: an exceptional museum exhibition will provide entry points to the transformational for all museum users.

Much of the literature discusses ways that museums have poorly implemented avenues to enhance museum user involvement. In Mondloch's analysis of the benefits and deficits of viewing art via screens and Heath et al.'s analysis of museums as being primarily social gathering points, the most

familiar uses of technology are not best recommended to enhance visitors involvement (Mondloch, 2010, Heath et al., 2003). Essentially, having museum visitors interact with their cell phones, or iPads, or touchscreen televisions in a single-user framework, does not necessarily enhance collaborative participation because it is a solitary experience.

Ranjit Makkuni, Maggie Stogner, and Vince Dziekan suggest that embedded technology, where the primary interface is obscured, can help create interactive installations that engender a transformational moment. Stogner describes immersive environments that present integrated embedded technology, stage and exhibition design, and exceptional execution of detail so that the museum user can walk into the world of the exhibition. Dziekan embraces and describes technology as a main function of installations, encouraging collaboration between digital artists to create a virtual reality for users that reacts to their inputs and participation.

Furthermore, when beginning to unpack theories that contribute to the understanding of how collaborative participation and multimodal exhibits affect users and their experience of art objects, I was prompted to explore Nicolas Bourriaud's work *Relational Aesthetics*, Ian Sutherland and Sophia Kryz Acord's article *Thinking with art: from situating knowledge to situational knowing*, and Choi's article *Relational Aesthetics in Art museum Education* (Bourriaud, 2002, Sutherland et al., 2007, Choi, 2013). These works codified the link between relational aesthetics and how museum users integrate a networked experience that connects emotionality, interaction, and aesthetics (Choi, 2013, Bourriaud, 2002).

Evaluative studies are included in the discussion of topics museums have poorly implemented, focusing primarily on demographic information and issues such as dwell time, which indicate the average time a user stands before an installation, does not accurately reflect the multitude of effects museums have on their visitors. In *Creating a Program to Deepen Family Inquiry at Interactive Science Exhibitions*, authors suggest evaluating success as an iterative and personal experience that is comprised of many levels of meaning that expand beyond the museum visit (Allen et al., 2009). In Nina Simon's book *The Participatory Museum* she presents a new museology that envisions the museum as a

community hub where audiences engage not only with objects and interpretive materials, but also with each other, where substantive meaning-making occurs through collaborative participation and interaction (Simon, 2010). Simon suggests that a foundational concept that needs to be reworked is how museums measure success.

In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience endeavors to present an exhibition evaluation rubric that encapsulates eight key elements that contribute to a transformational experience. As a summative evaluation, this study plans to examine exhibitions from a variety of museum types to ascertain how to best serve museum users in a myriad of environments. Suggested further literature review includes a deeper analysis of aesthetic influence in museum exhibitions, more in-depth analysis of presentation of education material and how to ascertain comprehensibility, and a deeper inquiry regarding the development of exhibition evaluative measures.

Research Methodology

The purpose of this study is to determine which exhibition design features are essential across museum type to create an enhanced user experience; an enhanced museum user experience is synonymous with a transformational museum experience. This study examines eight key exhibition design elements that contribute to the creation of a transforming experience. This project utilizes a standardized evaluative rubric to closely examine eight exhibitions at Pacific Northwest museums classified in one of four museum types. The primary research question is *how can exhibition design be best executed to enhance museum user experience?*

The methodological paradigm utilized in this study is grounded in interpretivist/constructivist epistemological framework; the primary avenue for data collection is auto-ethnography. Auto-ethnography is inherently steeped in a constructivist epistemology. This epistemology will influence my research in that it encourages me, the research tool, to be acutely aware of my biases as a researcher, and how my cultural indoctrination has contributed to the development of my biases.

Role of the Researcher

Utilizing auto-ethnographic methodology based in an interpretivist/constructivist epistemology indicates that I am the research tool. Auto-ethnographic research procedures require an acute awareness of researcher bias. I am a multi-ethnic North American female researcher with many years of experience in not only exhibition development and implementation, but also in the creation of art. My perspective will be influenced by my cultural experience: as an English speaking, 33 year old female, that has lived on the West Coast of the United States for the past 23 years, as the daughter of a Chinese mother and European father, who was raised with both Mandarin and English spoken at home. Furthermore, since I am first generation born in America from my matriarchal line, I have been raised with a focus on my Chinese ancestry and culture.

My perspective will be influenced by my academic experience, as a graduate student who has attended not only a large university, but also a small rigorous liberal arts undergraduate program. My

perspective will be influenced by my appreciation and admiration for the museum field, generally, and my past positive experiences had in museums since childhood. As an Arts Management graduate student at the University of Oregon with a focus in Museum Studies and Exhibition Design, my position as an evaluative researcher indicates that my experience in museum exhibitions will be different than the average museum attendee.

Primary Research Questions

The primary research question of this study is *how can exhibition design be best executed to enhance museum user experience?* Follow-up questions include *what is an 'enhanced experience'?* The preliminary answer to this follow-up question is that an enhanced experience is synonymous with what the National Association of Museum Exhibitions refers to as a “transforming” museum experience. Hence, a parallel research question is *how can exhibition design be best executed to inspire a transformational museum experience?* This is the source of the title of this research project *In Search of the Transformational*.

Definitions [The following lexicon terms represent foundational elements of this study, for complete definitions please refer to Appendix I].

Aesthetics, Emotionality, Education & Comprehension, Embedded Technology, Interactive Elements,

Collaborative Participation, Immersive Environments, Visual Thinking Strategies, Summative

Evaluation, Exhibition Design, and Transformational Experience.

Delimitations

This study is specifically focused, to explore a multifaceted concept. This section discusses the primary delimitations of this study.

The eight museums included in this study are Pacific Northwest museums that fall into one of four types; the eight museums are either accredited or attached to a University. The four types of museums include: the art museum, the science center, the historical center, and the anthropological

center. Institutions categorized as museums that are being excluded include: zoos and aquariums, children's museums, pop-up museums, maritime museums, historical sites and homes, and heritage sites. All eight of the museums are located in one of the following cities: Eugene, Portland, or Seattle. The eight institutions are: the Jordan Schnitzer Museum of Art, the Portland Art Museum, the Oregon Museum of Science and Industry, the Pacific Science Center, the Burke Museum of Natural and Cultural History, the Museum of Natural and Cultural History (University of Oregon), the Oregon Historical Society, and the Experience Music Project.

A total of eight museums will be visited; within each museum one exhibition will be examined and evaluated. The exhibition will be part of the museum's permanent collection. The observation and evaluation procedures will be standardized: three hours will be spent in each exhibition, all exhibition visits will occur on a weekday, all evaluation procedures will use the standardized evaluation rubric, and all observations will be recorded by hand; however, for institutions that allow photography images will be collected in support of evaluative data.

Limitations

The limitations of this study are primarily related to budget and time. As the primary researcher, I do not have the resources, nor the time, to include museums outside of the Pacific Northwest; furthermore, the regional culture, while not homogenous, is consistent in this region of the United States. This study needs to be completed within the time frame prescribed by the University of Oregon which contributes to the necessity to focus on the Pacific Northwest. Furthermore, since I have resided in the Pacific Northwest for the past 15 years, I am inculcated in this cultural framework.

Research Objectives

The purpose of this study is to examine the interplay of eight key design elements and how they contribute to the creation of an enhanced museum user experience; furthermore, this enhanced museum experience is synonymous with a transformational museum experience. This study examines eight key

design elements across museum types to ascertain the similarities and differences in how the elements are used and to what effect. Little work has been conducted that examines exhibitions across museum types, by examining exhibits from a variety of museum types this study aims to determine what recommendations the science center could offer the historical center, what recommendations the anthropological center could offer the art museum, and vice versa.

This study is contributing to a growing body of knowledge that explores how exhibitions in informal learning environments disseminate information spatially, and how the public interprets the content. I intend to continue this research to further unpack how exhibitions provide informal educational experiences and how audiences respond to how material is presented. My professional focus is museum exhibition development, design, and evaluation, hence this study will further my exploration of what contributes to exceptional exhibition design, which will enhance my professional work.

Research Design

In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience explores how eight key design elements interactive to create a transformational museum exhibition. This evaluative study is a summative evaluative study that examines eight exhibitions in eight Pacific Northwest museums with the goal of creating an across institutional comparison that highlights similarities and differences, resulting in potential exhibition design recommendations. The results of this summative evaluation are intended to be used to enhance future programs and exhibits. The primary research question explored in this study is *how can exhibition design be best executed to enhance museum user experience?* An enhanced experience, for the purposes of this study, is synonymous with a transformational museum experience.

In *Practical Evaluation Guide: Tools for Museums and Other Informal Education Settings* the authors describes a summative evaluation as a study that explores “the impact of a project after it is completed... conducted after the exhibit has opened to the public” (Diamond et al., 2009, p. 4). The primary strategy of inquiry utilized in this study is auto-ethnography with the execution of a standardized evaluative rubric created by the synthesis of a literature review and vetted by museum professionals’ pre evaluation. In *Autoethnography, An Overview*, published in *FORUM: Qualitative Social Research*, the authors describe auto-ethnography as “an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience” (Ellis et al., 2011, p. 2). Discussed in more depth in the section *Role of the Researcher*, my position as a graduate student, who studies museums and exhibitions, positions me in a complex role, one where I am not the average museum visitor, nor am I a full-time museum professional; these considerations recommend auto-ethnography as a poignant and relevant research strategy.

The evaluations generated in this study will be analyzed utilizing a mixed methods analysis process. Examples of quantitative data include: the number of touch-screens present in an exhibition, the average length of interpretive labels, and the presence/absence of physical take-aways, etc. Examples of

qualitative data include: the emotional reaction inspired by an exhibition, the assessment of educational information and if it is comprehensible, and the quality of technology used in an exhibition, etc.

The primary research question of this study asks: *how can exhibition design be best executed to enhance museum user experience?* The follow-up question: *what is an enhanced museum user experience?* In this study a correlation is being drawn between an enhanced museum user experience and a transformational museum experience, which leads to the parallel question *how can exhibition design be best executed to inspire a transformational experience for museum users?*

Research Participants

This study will examine eight exhibitions housed in the permanent collections of eight Pacific Northwest museums. The eight museums fall into one of four categories: the art museum, the science center, the historical center, and the anthropological museum. Each museum category is represented by two museums. The exhibitions were selected because they are demonstrative of exhibitions normally found in the selected museums and do not represent travelling exhibitions that are less predictable with regards to their availability to the general public. All of the museums included in this study are located in Pacific Northwest cities and are either independently accredited by the American Alliance of Museums and/or they are affiliated with a research university. The eight museums were selected because they are strong institutions that are representative of their museum type. The museums will be recruited with an introductory letter or email, followed by a phone call.

General Timeline

This study began in January of 2014, and though the research methodology and scope of the project has evolved, the primary research question has remained the same. The primary concepts being explored in this study pertain to enhancing museum user experience through the execution of exceptional and innovative design. Throughout the research process a literature review will be undertaken, the preliminary literature review has resulted in the development of the exhibition evaluation rubric based on

eight key design elements. The next step of this study, to commence in January of 2015, is the review and vetting of the evaluation rubric by museum professionals. Once the evaluation rubric is properly vetted, travel to and evaluation of museum exhibitions will commence, in mid-January. Data collection will conclude by the end of February. Data analysis will be completed by the middle of March; the interpretation of the analysis will be completed by mid-April, and a draft of the completed study will be submitted by April 24th. The final rendition of *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience* will be submitted to my research supervisor by Friday, May 29th, 2015. The final bound copies will be submitted Tuesday, June 9th, 2015. For a detailed rendition of the timeline please refer to Appendix C.

Expected Results

The primary research tool in this study is the exhibition evaluation rubric which examines the following eight elements: aesthetic robustness, emotionality, educational aspects & comprehension, use of technology, interactive elements, collaborative participation, immersive environments, and Visual Thinking Strategies. These eight key elements were selected because they have been successfully used in tandem and alone to create inspirational and effective museum exhibitions. This study hopes to find exhibitions that successfully incorporate some aspects, or all eight ingredients, to create a transforming exhibition. The eight museums were selected so that a cross institutional type analysis could be conducted that highlights similarities and differences with regards to the eight design elements indicated above. This study hopes to unpack recommendations for exhibition design between museum types. The museums were selected because of their institutional and exhibition strength, hence it is expected that each museum exhibit will employ at least some of the evaluative criteria.

Intended Audience & Potential Benefits of Study

The primary audience for this study includes museum professionals (exhibition designers, curators, educators, and evaluators), exhibition design consultancy firms, the National Association for

Museum Exhibitions, museum funders, and museum trustees. The primary product of a museum is its exhibitions; therefore this study offers many potential benefits, not only to museum professional, but also to the public who enjoy the exhibitions.

Data Collection & Analysis Procedures

In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience employs a five phase process for the collection and analysis of data. For a complete copy of the data collection schematic, please refer to Appendix B.

Phase I: Comprehensive Literature Review & Development of Museum Exhibition Evaluation Rubric, by synthesizing information gathered in the literature review, I created the first version of the exhibition evaluation rubric (Appendix D).

Phase II: Refine Museum Exhibition Evaluation Rubric, continuing the literature review and with the assistance of museum professionals (Dr. Alice Parmon, David Turner, and Dr. Jon Erlandson).

Recruitment of the eight selected Pacific Northwest museums occur simultaneously.

Phase III: Museum Exhibition Evaluation. I will travel to the selected museum sites and evaluate a single exhibition housed within the permanent collection. The eight museum sites are: the Jordan Schnitzer Museum of Art, the Portland Art Museum, the Oregon Museum of Science and Industry, the Pacific Science Center, the Burke Museum of Natural and Cultural History, the Museum of Natural and Cultural History (University of Oregon), the Oregon Historical Society, and the Experience Music Project. I will spend 3 hours in each exhibition observing and recording data prompted by the standardized questions of the evaluation rubric: I will record both quantitative and qualitative data. If allowed, I will take photographs as supportive evidence. All museum visits will occur on a weekday.

The following chart illustrates the distribution of institution with regard to museum type:

Art Museum: PAM + JSMA
Science Center: OMSI + PSC
Anthropological Center: BMNCH + MNCH
Historical Center: OHS + EMP

Phase IV: Analysis of Data. Data will be organized utilizing data matrices based on the eight evaluative measures for each institution. Quantitative and qualitative data will be analyzed. Examples of quantitative data include: number of touch-screen displays used in an exhibition, the average length of labels, the number of objects on display in an exhibition, and the number of interactive elements employed, etc. Examples of qualitative data include: the strength of a selected typeface to engage museum users, the emotional response to a work of art, and the depth of understanding gained via interpretive material, etc. The data will be organized utilizing data matrices across institutions to assist with comparing and contrasting exhibitions.

Phase V: Interpretation of Data. The interpretation of the analysis is rooted in two methodologies: 1) determining if an exhibition was successful in engendering a transformational experience, and, if so, how that was achieved; and, 2) comparing and contrasting elements of design between exhibitions and potentially identifying recommendations from one exhibition for another.

Data Collection Instruments

The primary data collection instrument is a standardized exhibition evaluation rubric that explores eight key elements. For a complete copy of the preliminary exhibition evaluation rubric, please refer to Appendix D. Furthermore, if allowed, photographic evidence will be collected in support of the findings contained in the summative evaluation. The exhibition evaluation rubric examines the following eight elements: aesthetic robustness, emotionality, educational aspects & comprehension, use of technology, interactive elements, collaborative participation, immersive environments, and Visual Thinking Strategies. These eight key elements were selected because they have been successfully used in tandem and alone to create inspirational and effective museum exhibitions. The *Standards for Museum Exhibitions and Indicators of Excellence* describe a key indicator of excellence as an exhibition that incorporates a transformational element. The indicator of excellence, as described in *the Standards for Museum Exhibitions and Indicators of Excellence*, guided the creation of the evaluative rubric; however

the evaluation rubric is more robust than the NAME Standards. The following list presents a synthesis of the indicators of excellence:

1. The exhibition offers a new insight on a topic. (Education & Comprehension)
2. The exhibition presented existing knowledge in a provocative way. (Visual Thinking Strategies)
3. The exhibition includes the audience in an innovative manner through design. (Collaborative Participation, Interactive Elements, & Immersive Environments)
4. The exhibition includes innovative media, material, and other design elements. (Innovative use of technology)
5. The exhibition is particularly beautiful. (Aesthetically Robust)
6. The exhibition is exceptionally capable of engendering an emotional response. (Emotionality)
7. The exhibition evoked responses from viewers that are evidence of a transforming experience. (Transformational experience)

Often characterized by these responses:

“It was haunting.”

“I’ll never see _____ the same way again.”

“It knocked my socks off.”

(NAME, 2012, p. 5)

Recruitment Letter

The eight Pacific Northwest museums will be invited to participate in this study by letter or email, followed by a phone call. For a complete copy of the recruitment letter, please refer to Appendix E.

Informed Consent

The eight selected Pacific Northwest museums will be given a consent form that allows me to evaluate the selected exhibition, publish their institutions name in my final documents, publish the exhibitions name in my final documents, consent or prevent the use of photography in the exhibition, review the evaluations prior to the publication of data, and elect to use a pseudonym for their institution. For a complete copy of the consent form, please refer to Appendix F.

Data Collection & Disposition Procedures

All data will be collected by me in the exhibition with paper and pencil. All data will be collected via the evaluation rubric. If the institution allows photography, I will record supportive photographic evidence relating to an aspect included in the evaluation.

All data will be kept secured at my house in Eugene, OR. After each museum visit and evaluation, I will transcribe my notes from the hand-written evaluation into a word processing document. The original hand-written notes will be secured in my house, and the word processing document will be kept in a password protected file on my computer. If the museum decides it would prefer for me to use a pseudonym, I will create a pseudonym for the institution to be used in the final document. Photographs will be uploaded to my computer and files will be kept in the password protected file along with evaluative data. Photograph files will be deleted from the camera. Data will be kept for use in future research projects and photography will be kept for future presentations and possible publications.

Data Coding & Analysis Procedures

Though still in development, this study will utilize coding schematics to assist in correlating information contained in the evaluative rubrics. The following table illustrates the preliminary codes in development:

AE = Aesthetics
AE 1 = Weak Aesthetics
AE 2 = Mediocre Aesthetics
AE 3 = Strong Aesthetics
EC (EC 1, EC 2, EC 3) = Education & Comprehension
EMO = Emotionality
TEC = Technology
ETEC = Embedded Technology

Otec = Obtuse Technology
INT = Interactive Elements
SU = Single User
MU = Multiple User
CP = Collaborative Participation
IE = Immersive Environment
VTS = Visual Thinking Strategies

Analysis of data will examine both quantitative and qualitative data. Data will be organized utilizing data matrices based on the eight evaluative measures for each institution. Data matrices will condense evaluative information for each exhibition and will assist in a comparative analysis.

Validity of Findings

I have established credibility as a researcher by dedicating my academic pursuits to museum studies and museum exhibition design. This positions me in a different place than the average museum

visitor. I have experience as an exhibition designer and curator, working in both museum and non-museum environments. The validity of my findings comes from utilizing a vetted and standardized exhibition evaluation rubric. Validity will also be established in utilizing a methodical application of coding and data matrices that identify both quantitative and qualitative data. The generalizability of my findings is intended for my audience of museum professionals, exhibition designers, and the National Association of Museum Exhibitions.

Investigator Experience

Beatrice Yeh Ogden received her BA in English from Reed College in Portland, Oregon. She is currently enrolled as a MS Candidate at the University of Oregon Arts Management Program with a focus in Museum Studies and Exhibition Design. She recently received the 2014 University of Oregon Research Award from the Arts Administration Department.

In 2003, Ogden completed her undergraduate thesis unpacking poetry written by Chinese immigrants while detained at the Angel Island Immigration Station; her thesis analyzed poetry as a modality for immigrant detainees to cope with, and understand, their disenfranchised foreign experience.

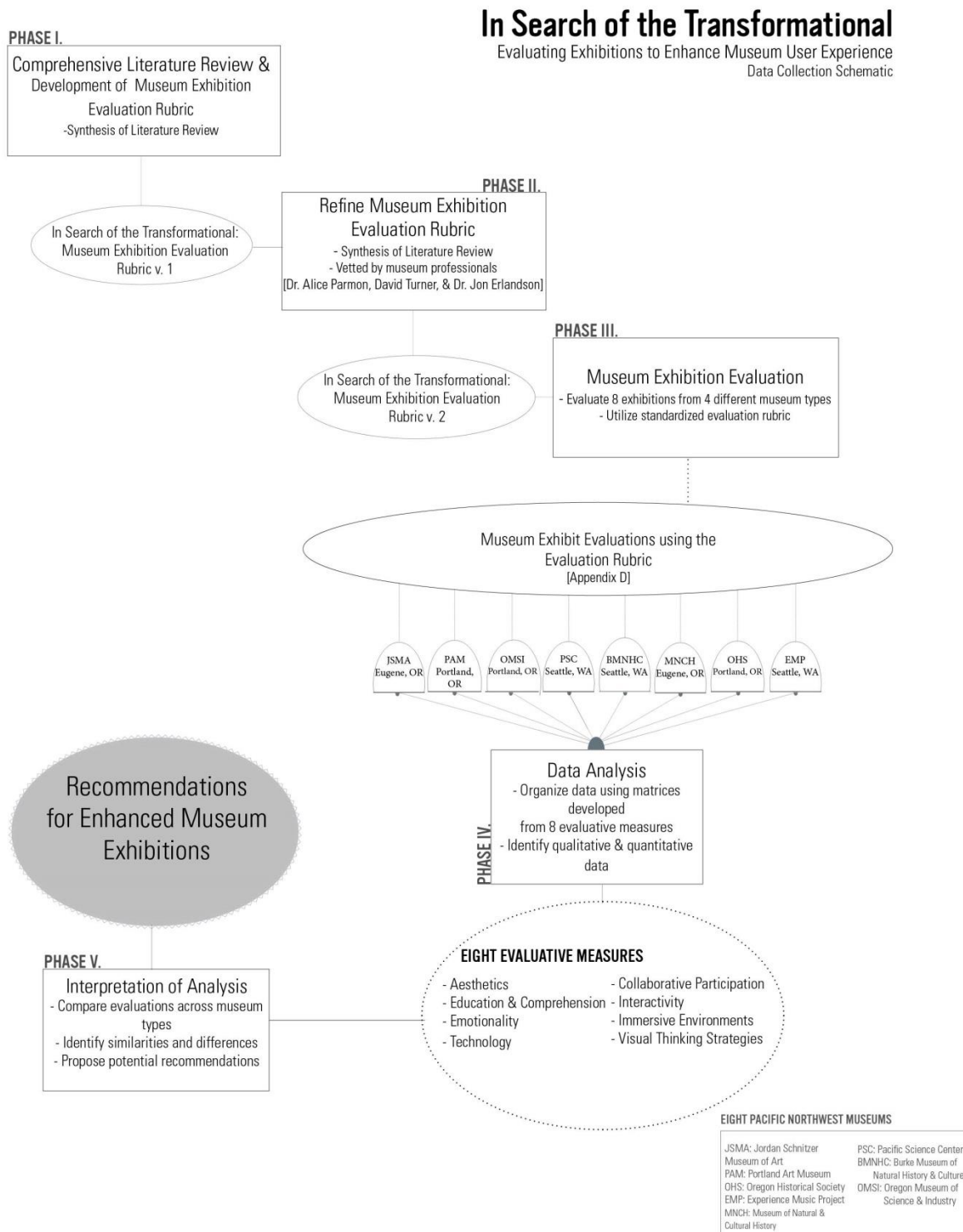
Ogden's visual art practice explores how individuals engage in conversations spatially; she also explores the mediums of photography, sculpture, assemblage, and fiber. Ogden is influenced by the work of Louise Nevelson, Andre Breton, JR, Mark Jenkins, and Jarvis Rockwell.

Appendix A: Conceptual Framework

In Search of the Transformational
Evaluating Exhibitions to Enhance Museum User Experience



Appendix B: Data Collection Schematic



Appendix C: Research Timeline

Arts and Administration Program Master's Research Timeline, 2014-2015

Fall 2014

- Complete full research proposal, meeting regularly with research adviser
- Draft detailed research instruments
- Draft human subjects documents and complete CITI training
- Create general outline of final document
- Submit human subjects application

Winter 2015

January

- Submit human subjects application documentation (if not completed in fall)
- Refine research instruments: vet exhibition design rubric with Dr. Alice Parmon, David Turner, and Dr. Jon Erlandson.
- Convert proposal into chapter drafts
- Plan with your advisor the dates that chapter drafts will be due; submission of chapter drafts will be worked out in agreement with your advisor over the next several months.

February/March

- Begin data collection and analysis: Visit Selected Museums
- Prepare detailed outline of full document
- Begin to submit chapter drafts

Spring 2015

April

- Complete data collection
- Continue with ongoing data analysis
- Write full first draft of final document, submitting chapters to advisor for review and feedback according to plan
- Friday, April 24: Deadline for draft of full document to be submitted to research supervisor

May

- Week of May 4: Feedback from research supervisor prior to student presentations and approval for readiness of final presentation.
- Friday, May 8: Deadline Audio-visual file to Events & Communication GTF
- Friday, May 15: Student presentations of master's research.
- Monday, May 18: Deadline to submit text (500 word abstract) and images for inclusion in student research journal.
- May 18-29: Continue revisions to full document, soliciting feedback as needed.
- Friday, May 29: Deadline for full final draft to be submitted to research supervisor

June

- Week of June 1: Feedback on the full document. Make final revisions.
- Tuesday, June 9: Deadline for submission of final, bound document copies (collect signature). Also submit digital copy.

Appendix D: Research Instrument {Pages 20 – 29}

In Search of the Transformational: Museum Exhibit Evaluation Protocol

Date

Museum Type:
Museum Name:
Museum Contact:
Contact Phone Number:
Contact Email Address:
Mailing Address:
Museum Mission:

Exhibition Name:
Exhibition Duration:
Exhibition Type:
Traveling/Permanent:
Exhibition Mission:

Consent: Oral Written (form) Thank you card sent

Photography: Allowed Not Allowed

Key Points
CODING

INFORMATION

NOTES

Two vertical lines defining the structure of the coding, information, and notes sections.

Aesthetics

Value:

Color:

Texture:

Balance:

Line:

Shape:

Viewing Height:

Entry:

Awesome or Intimate:

Floor Plan:

Object Arrangement:

Logo:

Typeface:

How do the aesthetics enhance the exhibition?

Education & Comprehension

What are they trying to teach me?

Did they succeed?

What do they offer as a take-away so I can continue to learn outside of the museum?

Did they offer an avenue for me to ask questions?

How does the educational component of the exhibit enhance the exhibition?

Emotions

Does this exhibition inspire an emotional response?

What emotions are inspired?

How are the emotions inspired?

How does the emotionality enhance the exhibition?

Technology

Does this exhibition use technology?

What kinds of technologies are employed?

Is the technology embedded/obscured or obtuse?

Does the technology offer a single-user or a multiple-user interface?

How does the technology enhance the exhibition?

Interactive Elements

Does this exhibition use interactive elements?

How? What are the interactive elements?

Are they directed at single-users or multiple-users?

How do the interactive elements enhance the exhibition?

Collaborative Participation

Does this exhibition provide an opportunity for participants to collaborate with each other?

If so, what does this look like?

How are participants collaborating?

How does the collaborative participation enhance the exhibition?

Immersive Environments

Does this exhibition create an immersive environment?

How? What aspects are immersive?

What is the function of the immersive environment?

How does the immersive environment enhance the exhibition?

Visual Thinking Strategies *What's going on here? What makes you say that? What more can we find?*

Does this exhibition employ Visual Thinking Strategies to engage visitors?

What does this look like?

If there is no VTS leader, how does the exhibition employ VTS methodology?

How does VTS enhance the exhibition?

Notes

Appendix E: Recruitment Instrument

November 24th, 2014

Beatrice Ogden
837 Polk Street,
Eugene, OR, 97402

Dear Museum,

You are invited to participate in a research project titled *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience*. My name is Beatrice Ogden and I am a graduate student at the University of Oregon in the Arts Management program with a focus in Museum Studies. The purpose of this study is to explore how exhibitions can be designed to inspire a transformational experience for museum users.

This project explores the question *how can exhibition design be best executed to enhance museum user experience?* This study utilizes an exhibition evaluation rubric to assess museum exhibitions and explores how exhibitions employ eight elements to inspire a transformational experience for museum users. I have selected an exhibition in your museum as one of my seven sites for evaluation. The institutions I have chosen demonstrate a variety of museum types. The five types of museums I am examining include the art museum, the science center, the historical society, the anthropological center, and the pop-culture center. This project initiates with an evaluation of pre-existing exhibitions housed in the permanent collection and concludes with a comparison of exhibitions across museum types. This study aims to determine what elements of exhibition design are at the core of inspiring a transformational experience across museum types. The museums selected for this project are Pacific Northwest institutions located in Eugene, Portland, and Seattle.

Your museum was selected to be a part of this study because it is a prominent museum in the region and exemplary of your museum type. Few studies have been conducted that look at exhibition design across museum types, by comparing and contrasting data collected at a variety of museum types not only will a breadth, but also a depth of information will be cultivated. If you decide to take part in this study I will visit your museum and conduct an evaluation utilizing the developed rubric. The rubric addresses eight elements of exhibitions including: aesthetics, education & comprehension, emotionality, technology, interactive elements, collaborative participation, immersive environments, and visual thinking strategies. I will use a paper evaluation rubric and spend three hours in the selected exhibition making observations and writing notes. If allowed, I will also take photographs of details of the exhibition that correlate to the evaluative measures. When the evaluations have been completed I will share my findings with your institution if requested.

If you have any questions, please contact me at 503-894-2914 or bogden@uoregon.edu, or Dr. Alice Parmon at aparman@uoregon.edu. Any questions regarding your rights as a research participant should be directed to the Office for the Protection of Human Subjects, University of Oregon, Eugene, OR 97403, (541) 346-2510.

Thank you in advance for your interest and consideration. I will contact you shortly to speak about your potential involvement in this study.

Sincerely,
Beatrice Ogden

Appendix F: Consent Form

In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience

Beatrice Ogden, Principal Investigator
University of Oregon Arts and Administration Program

You are invited to participate in a research project titled *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience*. The purpose of this study is to explore how exhibitions can be designed to inspire a transformational experience for museum users, which can result in an enhanced museum user experience.

This project explores the question *how can exhibition design be best executed to enhance museum user experience?* This study utilizes an exhibition evaluation rubric to assess museum exhibitions and explores how exhibitions employ eight elements to inspire a transformational experience for museum users. I have selected an exhibition in your museum as one of my seven sites for evaluation. The institutions I have chosen demonstrate a variety of museum types. The five types of museums I am examining include the art museum, the science center, the historical society, the anthropological center, and the pop-culture center. This project initiates with an evaluation of pre-existing exhibitions housed in the permanent collection and concludes with a comparison of exhibitions across museum types. This study aims to determine what elements of exhibition design are at the core of inspiring a transformational experience across museum types. The museums selected for this project are Pacific Northwest institutions located in Eugene, Portland, and Seattle.

Your museum was selected to be a part of this study because it is a prominent museum in the region and exemplary of your museum type. Few studies have been conducted that look at exhibition design across museum types, by comparing and contrasting data collected at a variety of museum types not only will a breadth, but also a depth of information will be cultivated. If you decide to take part in this study I will visit your museum and conduct an evaluation utilizing the developed rubric. The rubric addresses eight elements of exhibitions including: aesthetics, education & comprehension, emotionality, technology, interactive elements, collaborative participation, immersive environments, and visual thinking strategies. I will use a paper evaluation rubric and spend three hours in the selected exhibition making observations and writing notes. If allowed, I will also take photographs of details of the exhibition that correlate to the evaluative measures. When the evaluations have been completed I will share my findings with your institution if requested.

Any information that is obtained in connection with this study will be carefully and securely maintained. Your museums consent to participate in this evaluative study, as indicated below, demonstrates your willingness to have your institutions name used in any resulting documents and publications and to relinquish confidentiality. If you wish, a pseudonym may be used with all identifiable data. It may be advisable to obtain permission to participate in this evaluative study to avoid potential social or economic risks related to the observations recorded. Your museums participation is voluntary. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

I anticipate that the results of this research project will be of value to the museum sector as a whole, especially in the Pacific Northwest region. However, I cannot guarantee that you personally will receive any benefits from this research.

If you have any questions, please contact me at 503-894-2914 or bogden@uoregon.edu, or Dr. Alice Parmon at aparman@uoregon.edu. Any questions regarding your rights as a research participant should be directed to the Office for the Protection of Human Subjects, University of Oregon, Eugene, OR 97403, (541) 346-2510.

Please read and initial each of the following statement to indicate your consent:

_____ I consent to the evaluative study to take place in your exhibition at your museum.

_____ I consent to the identification of your museum as a participant in this study.

_____ I consent to the identification of your exhibition as a participant in this study.

_____ I consent to the use of photography in your exhibition as part of this evaluative study.

_____ I wish to have the opportunity to review and possibly revise the evaluation prior to these data appearing in the final version of any publications that may result from this study.

_____ I wish to maintain my museums confidentiality in this study through the use of a pseudonym.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies. You have been given a copy of this letter to keep.

Print Name: _____

Signature: _____ Date: _____

Thank you for your interest and participation in this study.

Sincerely,
Beatrice Ogden
503-894-2914
bogden@uoregon.edu
837 Polk Street,
Eugene, OR, 97402

Appendix G: Resume

Beatrice Yeh Ogden

4526 SE 37th Ave. Portland. OR. blogs.uoregon.edu/bogden
503.894.2914; bogden@uoregon.edu cloudbreakart.com



Exhibition Design & Project Management

Portland Institute for Contemporary Art, Portland, OR, 2014

Performing Arts Summer Intern/Exhibition Design Lead
THE WORKS CLOSER: Manager of the Time.Based.Arts Festival late night hub
Critical Mascara Stage Design: Lead designer for the TBA Drag Ball Stage
Co-administrative lead for THE WORKS, pre-production & run of show
Volunteer management for festival production

Lake Oswego Festival of the Arts, Lake Oswego, OR, 2014

Lead Curator & Exhibition Designer
Largest OS in NW w/ 1,100 art pieces; 25,000 attendees,
Artist Demonstrations & Workshops Manager
Team of 18 Curatorial Assistants Recruit, Train, & Manage

Jordan Schnitzer Museum of Art, *Placing Pierre Daura*, 2014

Exhibition Design: using dioramas & InDesign place Daura paintings in gallery & create map develop interpretive exhibition techniques.
Compose labels, design interpretive technology, and develop exhibition narrative.

Human Nature Festival, Tidewater, OR, 2012 - 2013

Cloud.Break Visionary Art Dome & Programming. *The Golden Serpent: Kundalini Rising*; 16 artists, in 7 teams, tell their original pictorial renditions of the Seven Yogic Chakras.
Art Programming & Workshop Facilitator
Lead Administrative Officer
Lead Curator & Exhibition Designer

Volunteer & Resource Management

Cloud.Break Artist Recruitment & Representation, Portland, 2011 – 2014

Live Painting: Human Nature Festival, Shamanic Sounds, & The 5th World.
Collaborative Exhibition: *The Golden Serpent: Kundalini Rising*, HNF 2013.
Organize travel arrangements for team of 40: artists, volunteers, & staff.
Draft & administrate contracts.
Draft & execute budgets, bill of sales, inventory, & payments.

Research & Editing

MS in Arts Management, Museum Studies Certificate, 2014 - 2015

Graduate Thesis Project: *In Search of the Transformational: Evaluating Exhibitions to Enhance Museum User Experience*
How can exhibition design be best executed to enhance museum user experience?
Evaluative examination of exhibitions in seven Pacific Northwest museums

NEA funded *Prison Arts Resource Project* Assistant, Dr. Lori Hager, 2014

Collect and annotate impact studies evaluating the effects of Prison Arts Programming w/ a focus on prisoner self-efficacy, reduction in recidivism, and psychological rehabilitation.
Design and format final NEA Report.

Graduate Teaching Fellow

2014 -2015

University of Oregon
AAD 250: Art & Human Values
AAD Program Assistant

Education

MS Arts Management

University of Oregon. 2015
Museum Studies Certificate

BA English

Reed College: 2003

Thesis: *Writings on the Walls:*

Chinese Poetry Composed at the Angel Island Immigration Station

Design & Media

Adobe Creative Suite
Microsoft Office Suite
Google Sketch-Up
WordPress
Social Media Marketing

Awards

2014 UO Graduate School
Research Award (AAD):

Postdigital Immersive Museum; Enhancing User Experience through Embedded Technology

Appendix H: CITI Training Completion Form

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)
HUMAN RESEARCH CURRICULUM COMPLETION REPORT
Printed on 11/10/2014**

LEARNER	Beatrice Ogden (ID: 4508700) 4526 SE 37th Ave Portland OR 97202 United States
DEPARTMENT	Arts Management
PHONE	5038942914
EMAIL	bogden@uoregon.edu
INSTITUTION	University of Oregon
EXPIRATION DATE	11/09/2016

SOCIAL-BEHAVIORAL-EDUCATIONAL RESEARCHERS

COURSE/STAGE:	Basic Course/1
PASSED ON:	11/10/2014
REFERENCE ID:	14536930

REQUIRED MODULES	DATE COMPLETED	SCORE
Belmont Report and CITI Course Introduction	11/09/14	3/3 (100%)
History and Ethical Principles - SBE	11/09/14	4/5 (80%)
Defining Research with Human Subjects - SBE	11/09/14	4/5 (80%)
The Federal Regulations - SBE	11/09/14	5/5 (100%)
Assessing Risk - SBE	11/09/14	5/5 (100%)
Informed Consent - SBE	11/10/14	5/5 (100%)
Conflicts of Interest in Research Involving Human Subjects	11/10/14	5/5 (100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research	11/10/14	5/5 (100%)
Cultural Competence in Research	11/10/14	5/5 (100%)
ELECTIVE MODULES	DATE COMPLETED	SCORE
Basic Institutional Review Board (IRB) Regulations and Review Process	11/10/14	5/5 (100%)
Privacy and Confidentiality - SBE	11/10/14	5/5 (100%)

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid Independent Learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Program Course Coordinator

Appendix I: Definitions

Aesthetics: principles concerned with the nature and appreciation of beauty.

Collaborative Participation: when individuals work together to learn, solve a problem, or engage in an activity.

Education & Comprehension: when a museum exhibit offers interpretive material on a subject matter and when that material is understood.

Emotionality: is the observable behavioral and physiological component of emotion, and is a measure of a person's emotional reactivity to a stimulus.

Exhibition Design: the process of developing an exhibition from the development of a concept to the construction of a 3D display; may also include evaluative measures.

Immersive Environments: in museum exhibitions when the display encompasses the entire gallery, where the audience enters a fully realized world.

Interactive Elements: in museum exhibitions when aspects of the display are intended to be used by the audience to further the exhibition goals.

Summative Evaluation: an evaluation that occurs after an exhibition or program has been launched and is open to the public.

Transformational Experience: an experience in a museum with an exhibition that emotionally, cognitively, and aesthetically impacts the audience; when the museum user is changed by the experience in the exhibition.

Embedded Technology: when the primary computer is obscured, when the computer interface is seamlessly interwoven with the display object, or when the interface is completely obscured.

Visual Thinking Strategies: developed by Philip Yenawine as a method to engage groups in visual analysis of an art object to encourage collaborative problem solving and critical thinking.

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