

Spring 2016

## Best Practices in Museum Education

William W. Fleming Jr.

University of Akron, [wwf2@uakron.edu](mailto:wwf2@uakron.edu)

Please take a moment to share how this work helps you [through this survey](#). Your feedback will be important as we plan further development of our repository.

Follow this and additional works at: [http://ideaexchange.uakron.edu/honors\\_research\\_projects](http://ideaexchange.uakron.edu/honors_research_projects)



Part of the [Other Education Commons](#)

---

### Recommended Citation

Fleming, William W. Jr., "Best Practices in Museum Education" (2016). *Honors Research Projects*. 258.

[http://ideaexchange.uakron.edu/honors\\_research\\_projects/258](http://ideaexchange.uakron.edu/honors_research_projects/258)

This Honors Research Project is brought to you for free and open access by The Dr. Gary B. and Pamela S. Williams Honors College at IdeaExchange@UAKron, the institutional repository of The University of Akron in Akron, Ohio, USA. It has been accepted for inclusion in Honors Research Projects by an authorized administrator of IdeaExchange@UAKron. For more information, please contact [mjon@uakron.edu](mailto:mjon@uakron.edu), [uapress@uakron.edu](mailto:uapress@uakron.edu).

Best Practices in Museum Education

William Fleming

April 4<sup>th</sup>, 2016

Honors Research Project

The University of Akron

Sponsor: Dr. Brad Maguth

## Abstract

Museums are visited more often than ever before, and as a result, are offering far more educational and interactive experiences to draw in a greater audience. As such, it is important to define how learning takes place in the museum setting, and also, how the museum experience can be refined in order to better accommodate visitor learning and their experience. The problem is, however, the museum setting is a nontraditional and unstructured environment, far different than the classroom, and museum staff, usually reserved to maintaining the collection and nothing else, are now being forced to build the museum experience around the visitor. Furthermore, museum and classroom collaboration is an excellent means to enhance classroom learning for students and bring in new audiences to museums, but the relationship between these two institutions leaves much to be desired. As such, this paper will address to issues: (1) how can museums better enhance learning in their venue and (2) how can museums and classrooms be linked to better aid the educational experience. To address these issues, research will be compiled, analyzed, and then applied to a local museum to assess the quality of learning. The research concludes that museum learning is a complex phenomenon that is contingent on three contexts and a multitude of factors. Museums can best accommodate learning by being cognizant of all these contexts (defined by the Contextual Model of Learning by Falk & Dierking 2000) and by creating a museum experience that is accessible, relevant, and open to interpretations from all demographics and cultural groups. Also, there are great barriers that still exist to classroom-museum partnership, but open lines of communication and mutual goals between institutions can both help to streamline field trips and create a memorable and educational experience. These conclusions can be applied to better enhance the educational programming of museums and better serve the visitors and classrooms that attend museums.

### Best Practices in Museum Education

In the modern age, museums are feeling more and more pressure to provide a service to visitors and play an active role in their communities. As museums become more visited, which research suggests there has been nearly a six fold increase in the frequency in which the average American attends museums, there is growing pressure for museums to continually tailor their content and collections toward their guests and visitors (Falk et al., 2004). As museums focus on providing educational opportunities interactive experiences, the field of education is simultaneously turning to more interactive ways to engage the classroom. One of the most intriguing ways teachers are reaching out to their students is through “Out of classroom experiences”. An out-of-classroom experience could be anything from an after-school club or a WebQuest, but this research will focus on one particular experience: the museum. According to Joseph Schwab’s four “commonplaces” of learning environments, both museums and classrooms are educational environments that share common themes such as “content, students, teachers, and a settings” (Vallance, 2004). Although the learning that occurs happens through different modalities and in vastly different settings, these two environments have the opportunity to intertwine during the experience of the class field trip and build on each other to create valuable and memorable learning experiences for students. Because of this opportunity, there has been an increasing collaboration between teachers and museums, but there is still improvement to be made on this connection. There are a wide host of barriers that prevent school-museum collaboration, including a shift in education towards standardized testing, logistical issues, lack of instructional time, and miscommunications between museums and school faculty.

As such, this research project will be divided into two areas of inquiry:

- (1) education in the museum setting

(2) the museum field trip as an out-of-classroom educational experience

*Firstly*, this research will examine the new face of museum education and how museums can further educational opportunities for all visitors and specifically visiting classrooms. In order, to address the museum's new role in the education of their guests, it will be important to define what obligations museums have to their guests. This report will also analyze the average museum visitor and their expectations for their museum experience in order to best understand how a museum should be tailoring its information to suit its audience's needs. Next, conceptual frameworks will be analyzed in order to understand the many variables that come to influence the learning process that takes place in the museum setting and how these variables can be manipulated to ensure quality learning and a positive and memorable experience.

*Secondly*, the report will shift its focus from simply the museum in general to its connection to education in the classroom setting, and look at how collaborations can be built between institutions in order to strengthen student recall and build more meaningful learning experiences. In order to gain a full understanding of the connection between museum and school education, the report will first take to analyzing the differences and similarities that exist between the school and museum setting. Only after these questions are answered can museum and school staff bridge the gaps of their respective fields in order to create a more engaging and worthwhile learning experience for students and visitors alike. The report will also seek to provide rationale for increasing partnerships between museums and schools by proving the benefits of learning using the museum experience and field trips in general. Museum education composes a fair percentage of museum budgets and field trips can place a serious burden on school and teacher resources. Proving the benefits of museum and school partnerships will provide justification for teachers and museums alike who are weary of collaborating due to

outside factors. Finally, past studies will also be analyzed where museum-school collaborations were made in order to enhance student learning.

*Lastly*, I will provide a local application for my research through the profiling of a local historic home museum known as the Hower House and interviewing their museum specialist and tour programmer, Rebecca Wehr, in order to gain more insight and clarity into how tours are designed for specific clients and guests. I have personal experience with this museum, as I served as a student intern at the Hower House and helped with education programming and lead tours for 3<sup>rd</sup> grade classrooms as part of Akron Public Schools' History Month. By profiling a local museum, I will be able to use Falk & Dierking's Contextual Model of Learning (2000) as a framework to interpret the quality of learning that is taking place in the museum, and what changes can be made to better facilitate learning. By interviewing a specialist in the field, I will gain valuable insight into how museum tours are specifically tailored to aid in the education of guests and how my prior research can be applied directly in a real life museum. A weakness of this project is that it will not be able to draw data from my own experience programming and leading educational tours, but instead, this research will serve as a guideline for future museum educators and teachers interested in using a museum as an educational experience to enhance classroom learning.

The ultimate goal for this research will be to gain a better understanding of the educational processes that take place in museums, and how teachers can build upon these learning experiences to enhance learning in the classroom. Museums, as relevant, interactive, and visual environments have the opportunity to expand learning for students and connect it to their own lives in ways that teachers are often unable to accomplish in the classroom setting alone. By the end, it is my hope that any teacher that reads my research will be encouraged to

take advantage of their local museums to add new dimensions to their students' school year, and that any museum staff, upon reading my article, will further consider the obligation they have to serving the museum visitor and classrooms by facilitating a dynamic and interactive learning environment.

### **The Relationship between the Museum and the Visitor**

The role of the museum in the everyday life of Americans has received a massive paradigm shift in the last century. In their original form, museums existed solely to archive, preserve, and then exhibit historical or precious artifacts with cultural or historic meaning; whereas in the modern day, museums play a much different role in terms of serving their clients and their communities (Doering, 1999). The focus of traditional museums was to amass and preserve a vast collection of artifacts (which is still an important component of what the modern museum does), but the modern museum is now evaluated on how well the collections and knowledge “serve” the museum visitor, be it through community engagement, providing an educational experience, eliciting an emotional response, or contributing new research (Doering, 1999, p. 4).

This shift in museums from a static storage facility of knowledge to a dynamic host for interactive learning can be correlated with two relevant phenomena: the number of museums in the United States is skyrocketing, and museum attendance has steadily grown over the last thirty years (Falk et al. 2004). *Firstly*, more people on average are attending museums today than ever before. According to Doering, surveys suggested that in the years from 1974-1999 the number of museums in the United States as much as quadrupled (1999). A recent Washington Post article by Christopher Ingraham cites there are more museums in the United States than there are Starbucks or McDonald's chains combined (Ingraham, 2014). All in all, in 2014 there were as

many as 35,000 museums in the United States, which brings to light the significance and prevalence of smaller museums that focus on local or niche history. *Secondly*, during the same time period of growth in the number of physical museums, the average American visited museums significantly more frequently across over twenty-five year period (Falk et al., 2004). This increase in museums across the nation and museum visitation as a whole would cause one to wonder what has changed over this period of time.

At its very basis, museum going is a leisure time activity that people voluntarily chose to engage in during their time away from work or other commitments. According to Kelly and Godbey, leisure time is a way humans satisfy their demands for “personal self-definition and agendas for development” (this connection to Maslow’s hierarchy of needs will be addressed as it relates to visitor expectations during museum visits and conceptual frameworks) (Doering, 1999). This leads to one of two conclusions: (1) in the modern day, more people on average are seeking more informational and developmental ways to spend their leisure time and museums have responded to this demand or (2) museums in the modern day are recognizing their role in society as educational institutions who must be responsive to their community, and as a result, people are overall more engaged and interested in the museum experience. This “chicken vs. egg” debate is mostly irrelevant to this research, but the truth is most likely a compromise of the two conclusions. People are attending museums more to fulfill their own personal needs for personal growth and identity, and museums are responding to this need by providing educational opportunities unlike before that allow people to meet these needs. Whether museums like it or not, there is a high demand to provide educational experiences and tailor the museum experience to the needs and expectations of their visitor

### **A Museum’s Obligation to the Visitor: The Traditional vs. Contemporary Models**



It has been established that there has been a paradigm shift in the role of museums in education and the community as a whole. In early museums, there was little or no attention paid to serving the client in the traditional museum, and rather, museums served more an academic or scholarly purpose of preserving the world's knowledge for future keeping (Doering, 1999). The museums service to the public was providing a safe facility for storing precious and fragile objects with historic or cultural significance. The public's ability to view these preserved artifacts and the scholarly contributions to academia made by the museum were the benefits of visiting a museum. This role of the museum as a static storage facility will be defined as the "traditional model" which only began to shift with the beginning of the 20<sup>th</sup> century. The new role of museums as educators and service-minded social institutions will be referred to as the "contemporary model".

**The traditional model.** To further assess the traditional model of museums, David Wilson's framework for defining traditional national museums will be used. Wilson divided national museums through the use of three categories: monolithic museums, specialist national institutions, and state museums of national culture (Thompson, 1984). *Monolithic museums* were designed at gathering a wide array of artifacts in order to display the works of mankind through several eras and time periods. *Specialist national institutions* had the most educational focus as they sought to "provide high-level academic support for a body of scholarship that serves a national and international audience" (Ernst, 2002, p. 5). While they did provide educational opportunities to clients, they were opportunities aimed more at the professional or scholarly community such as conducting research. *State museums of natural culture* were designed to preserve national "traditions" and foster in its visitors a sense of "appreciation" for the national culture or society as a whole. While this framework for traditional museums is

limiting for this research's purpose because it only addresses museums at the national level, it is useful because it demonstrates the general mission of traditional museums: to provide a summary or general view of the natural world, foster a sense of national identity, or serve as a host for scholarly communities. All of these roles do indicate that traditional museums have some sort of service to provide or role to play in their community, but their obligation to their community as a whole was less defined and far less demanding than it is today.

**The contemporary model.** The new model for museums is one that is responsive to visitors' interests, needs, and expectations. Contemporary museums can be argued to have a much more intricate relationship with their visitors. Zehava Doering, in research with the Smithsonian Institute, defined three different attitudes held by museum staff in regards to their visitors: strangers, guests, or clients (1999).

When visitors are strangers to the museum staff, the staff is more focused on maintaining their collection rather than providing any specific service to the public (Doering, 1999). In this case, visitors to museums are seen as a mere consequence of opening the exhibit up to the public, and may even be unwanted by the most traditional of museum staff. Little consideration is given to guests in regards to the layout and contents of the exhibit.

When a museum recognizes its visitors as guests, "the museum assumes responsibility for its visitors" (Doering, 1999, p. 1). The museum attempts to do right by its visitors by providing some sort of positive educational experience and accommodating their experience. In this museum-visitor relationship, the museum staff view their visitors as empty containers waiting to be filled with knowledge. In this regards though, the museum does little to take into account its visitor's prior interests or needs. Those who are visiting the museum are assumed to be receptive

and interested in the content in the museum and will comprehend the method in which information is presented.

Lastly, when a museum views its guests as clients, it holds a sense of accountability to its visitors. Under this model, museums provide a service and this service is directly tailored to the interests, needs, and beliefs of its visitors. As museums struggle for funding and donation, this attitude is becoming more prevalent among museum staff. Museums have seen a decrease in government funding as the number of museums has grown over the last half of a decade (Ernst, 2002). This lack of funds requires museums to retrieve funds through other means including ticket prices, gift shops, cafeterias, and hosting fundraisers. As more of museums' budgets comes from visitor's pockets they must in turn be more responsive to the needs of their clients to attract more visitors.

Contemporary museums today likely exist within all three categories of museum-guest relations, but the guest and client attitudes are far more prevalent. Today, museums spend 2 billion annually on education within their facilities, demonstrating a massive shift of effort toward the visitor experience ("Museum Facts"). A survey determined in the years 2000-01, 18,337,800 instructional hours were spent by museums educating visitors also demonstrating the shift museums are experiencing towards providing a service as opposed to hosting collection and research (Institute of Museum & Library Services, 2002). These statistics are revealing of the massive resource allocation that is the result of the American museum's new obligation to its visitor.

Using Doering's model, traditional museums most likely view their visitors as strangers (at worst) or as guests (at best). Some traditional museums may have been conscious of their guests and provided educational opportunity, but this would have paid little attention to the

preferences or needs of visitors. In the modern day, a traditional museum would not be able to fund its operations without creating an experience that attracts museum guests. Therefore, the museum is now inherently tied to its visitor and cannot exist without a consistent audience. The contemporary museum therefore has two intertwining obligations: (1) to entertain and encourage museum visits in order to raise money, sustain operations and improve the museum and (2) to the guests to serve as an educational institution that educates guests and aligns with their basic human needs of self-development.

### **Understanding the Museum Visitor**

It has been established that museums are no longer concerned with just collections and instead are social institutions that have a role to play in our communities and society. According to the last section, it can be assumed museums and visitors have a mutually beneficial relationship. Museums require a base of viewership to maintain operation and people view museums as opportunities to personally develop through the acquisition of knowledge or the construction of a meaningful experience. In order for a museum to best serve its audience, they must be fully aware of their demographics, personal beliefs, cultural heritage, and expectations for the museum experience. Only once the average museum visitor is understood and their motivations for visiting museum are deciphered can a museum begin to effectively construct the layout of their physical setting, the subject matter to be presented to guests, and the method of delivery.

### **Profile of the Modern Museum Visitor**

Some general demographic statistics will provide background over the general audience that is entertained by museums. In regards to age, the most significant population of museum goers are between the ages of twenty and forty-four, comprising about half of all museum

visitations, as reported by the Smithsonian Institute (Chang, 2006). Thirty percent of museum goers were younger children and the remaining twenty percent of museum visitations were accounted for were over the age of forty-five. It appears then that the majority of museum visitors are beyond their high school years, and are either pursuing a college education or working consistently.

In regards to gender, there is only a slight deviation in the amount of visitation to museums. Research by Schuster suggests that, at least in art museums, women may be more slightly more likely to visit museums than men (Schuster, 1991).

Race plays a more significant factor in determining museum attendance. Across the board, minorities attend museums less than Caucasians and African Americans attend museums about twenty to thirty percent less than the average citizen (Chang, 2006). Kahn suggests this could be because of a lack of cultural connections or intimidation by the discourse and syntax by which museum information is presented (2000).

Lastly, the rate at which education level and museum visitation is correlated is significant. More than half of all museum visitors have received some form of graduate education, as compared to visitors with only a high school diploma who comprised only four percent of all museum visitors (Chang, 2006). This disparity is both alarming and enlightening. The statistics demonstrate that museums may not be viewed as accessible to those with lower levels of education. Humans allocate their leisure time based on what they view as desirable and enjoyable, and those who attend museums in their leisure time identify learning as valuable and place importance on self-development and new experiences. Level of education and race, then, seem to play the most significant role in determining one's likelihood to visit a museum.

This has two possible implications: (1) museums are not properly marketing their experiences towards people of all demographics and levels of education or (2) museums are making attempts to address all demographics and their image as purely educational experiences dissuades visitors. Regardless of the truth, it is evident museums have a gap to close in reaching all demographics. On the positive, there does seem to be a shift in museum attitudes toward visitors. In just 1996, the average museum visitor was described as well-educated and intellectually independent, not needing of any particular background before entering the museum experience (Ernst, 2002). While still not ideal, it appears that there has been some shift in this generalization of the museum visitor. Today, museums make less assumptions about their visitors in regards to level of education, and, as such, construct museum experiences that are accessible to audiences of all ages, races, genders, and levels of education.

The demographic research above focuses on museum visitors as a whole. It is useful, however, for the purpose of this paper to analyze the population of students that are served by museums. As will be addressed later, museums play an educational role in the formal classroom setting, and this role is continuing to expand. Museums serve students of all grade level but they disproportionately serve the elementary grades, particularly the fourth grade (Institute of Museum and Library Services, 2002). This possibly suggests that (a) school and museum faculty find it easiest to transport students and carry out the logistical requirements of a field trip with elementary school students, or (b) museum and school staff find field trips to museums the most engaging and effective in the elementary grades. Regardless, the middle and high school levels provide opportunities for museum and school faculty to enhance collaboration.

### **Museum Visitor Motivations and Expectations**

As this research seeks to answer the ways in which museum education can be refined, it is also important to identify what motivates visitors to visit museums and what they expect to gain from attending a museum. By answering these questions, museums can be better designed to satisfy the basic needs of its visitors. As was previously identified, attending museums, outside of the field trip experience, is a leisure time activity in which visitors attempt to fill personal needs for self-development and self-identity. However, the explanation for what motivates museum visitors is not so simple. The motivations for attending museums and the value of the experience stem from a variety of factors including personal, social, and environmental (Sheng & Chen, 2012). Regardless of whether someone is in a museum by will or not, these visitors enter the door with expectations for their experience and goals they hope to have achieved by the end of their time in the museum. Museum visitors of all demographics hope to have gained something from their experience in a museum, and according to the Smithsonian Institute, usually come away with one four different kinds of experiences: social, object, cognitive, and introspective. (Doering, 1999).

*Social experiences* provide museum visitors with the opportunity to interact with their friends and loved ones in a social setting. Often when someone is disinterested with the subject matter of a museum, their interaction with a loved one or museum faculty is the most rewarding. *Object experiences* occur when a museum visitor cites the most favorable experience about the museum visit to be an object external to the visitor. This is potentially a piece of material culture such as a piece of art (Doering, 1999). *Cognitive experiences* allow for the intellectual development of the museum visitor. By presenting information through models, exhibits, or tours, museums allow hosts to enhance their cognitive abilities through the acquisition of

knowledge of development of skills. Finally, *introspective experiences* occur in the museum when visitors feel strong emotion or a sense of empathy toward an “object or a setting” in the museum (p. 11).

To complicate matters, different types of museums are naturally inclined to provide one experience at the detriment of another (Doering, 1999). Art museums almost entirely capitalize on object experiences as visitors stroll through galleries, viewing and determining which piece of art is most significant to them. History museums are more likely to provide cognitive experiences as knowledge and cultural information are transmitted to guests, but could also provide introspective experiences if the content is personally relevant enough to illicit an emotional response. A science center which hosts interactive experiments for kids certainly provides cognitive experiences, as the children primarily experiment and acquire new skills. However, the science center would also host social experiences as well. Museum staff would be more likely to interact with the children during interactive experiments, and participants may even be encouraged or required to work together during activities.

While it is true that museum visitors expect some sort of positive experience or outcome from their museum visit in order to meet their goals of personal development, the anticipated and actual experiences in a museum depend on too many factors to quantify. Falk and Dierking’s Contextual Model of Learning provide a range of factors that can come to influence the quality of the museum experience centered around the personal, social, and environmental (Falk & Storksdieck, 2005). While this model will be analyzed in detail later, it is useful to demonstrate the complexity of the museum experience. The personal, social, and environmental factors all play a role in determining the quality of the museum experience, and whether the museum visitor will encounter a favorable social, object, cognitive, or introspective experience at a museum.



There is no simple solution for the museum hoping to satisfy every visitor that enters its doors. According to Doering, ultimately, “Visitors make use of museums for their own purposes, and from varying perspectives. The museum can influence these outcomes but cannot control them” (1999). In other words, museum visitors construct meaning around their experience independent of museum staffs’ intentions. Therefore, museums can best serve all their visitors by finding ways to allow guests to construct their own meaning around the museum experience. Hein created a model for “constructivist museum” that aligned with this principal (Dierking, 1999). Under his model, museums should allow opportunities for guests to connect with familiar concepts to construct personal meaning and employ a variety of media that allow learners of all levels and styles to access the museum curricula.

In summary, there is a wide disparity in the populations that attend museums. Furthermore, the populations that attend museums do so for a wide array of reasons, and expect a variety of experience outcomes after attending a museum. Conclusions for further improvement can be drawn from these findings. First, museums must find ways to break down the barriers that cause ethnic minorities and the uneducated to avoid museums in their leisure time, and second, in order to satisfy as many visitors as possible, museums can employ a “constructivist” approach that allow visitors to construct meaning based around personal connections and access content through a variety of media.

### **Conceptual Frameworks for Understanding Museum Education**

It has been addressed that education in the museum setting is not easily defined or evaluated. The classroom is a highly structured environment where learning objectives are clearly defined and measured to ensure learning; whereas, the museum is for the most part an informal setting where learning is generally free-choice and rarely, if ever, evaluated or

measured. It is for this reason that multiple attempts have been made at creating a framework with which to analyze the learning and define the interactions that takes place in museums. The introduction of widespread, high-stakes testing in the education community has also pressured museums to adopt a consistent framework for learning, as museums are increasingly programming tours and educational activities for classrooms and schools (Wojton, 2009). Three main frameworks for defining learning in the museum setting will be analyzed, and then one will be selected for reference during the remainder of the research report and also during the profile and analysis of the Hower House Historic Home Museum. The first framework addressed will be Hein's four domains of learning in the museum. The next two frameworks analyzed were both developed by Falk & Dierking as a means to begin to understand museum education. They are the Interactive Experience Model and the Contextual Model of Learning.

### **Hein's Four Domains of Learning**

Hein's method of framing museum education was through the use his four domains or types of learning: traditional, behaviorist, constructivist, and discovery learning (1995). Through the use these four domains, any learning that takes place in a museum can be framed within context and analyzed.

*Traditional* learning in the museum mirrors that of traditional teacher-centered learning in the classroom (Hein, 1995). Information and subject-matter is delivered to the student or museum visitor, in chronological or logical order, in a manner that is understandable to help them. Learning is not interactive and instead is delivered directly from instructor or staff to the student or visitor.

*Behaviorist* learning emphasizes the role of associations between responses and stimuli in learning. We build these small associations between stimuli and our responses until knowledge

has been created (Hein, 1995). In behaviorist learning, a positive or negative outcome is assigned to a learning task within a museum visit, which either reinforces or punishes the visitor (Wojton, 2009). They then assign their own response to that outcome, which serves as conditioning for later episodes. Any situation in a museum where a visitor receives a reward or praise for acquiring knowledge demonstrates behaviorist learning.

*Discovery* learning stresses the importance of experience in learning. Without experience firsthand, learning cannot take place. Therefore, museums that encourage discovery learning should create exhibits that allow visitors to explore physical space and discover information themselves rather than it be described. Science centers are the most common type of museum that employ methods of discovery to educate their guests. Natural history museums that let kids dig in sand for “dinosaur bones” also employ this strategy

Finally, Hein defined the *constructivist* domain of learning which allows visitors to construct meaning around experiences and reach their own conclusions. Constructivist museums do not require guests to follow any one path through the museum and employ a variety of means to present information (Hein, 1995). These museums do not claim to have a “right” or “wrong” answer or conclusion to be made at the end of the visit. Instead, the benefit of visiting the museum is its ability to allow visitors to form their own knowledge and conclusions based on their own unique and personal experiences.

Hein’s model is useful as it provides a basic framework for defining or categorizing the types of learning that take place in the museum. Using this framework, museums can reflect on their own museum experience and decide what kind of learning experiences they feel are most valuable and memorable for the visitor. While this model is a satisfactory means to define museum learning, it draws too many parallels to learning that takes place in the classroom. As

will be examined further, the classroom and the museum are both inherently educational environments, but the settings and modalities through which information is presented are entirely different. Hein focuses purely on the cognitive aspects of learning, which is a satisfactory framework for learning in the classroom, but learning in the museum is contingent on a myriad of factors beyond the mode with which information is transmitted. As an informal and leisurely experience, learning in the museum is also greatly influenced by the physical and sociocultural setting in which the museum and visitor is situated (Sheng & Chen, 2012). It is for this reason that Falk and Dierking's Interactive Experience and Contextual Model of Learning will be used as a framework for the remainder of this research.

### **Interactive Experience Model**

Falk & Dierking first developed the Interactive Experience Model to define the array of contexts that come to affect the museum visitor's experience. They concluded that museum learning is affected in some capacity by three contexts: the personal, the social, and the physical (Chang, 2006). At every point in the museum experience, these three contexts are playing some sort of role to determine the quality of the museum experience and the capacity to which the visitor is learning. The personal context focuses on visitor "motivations, expectations, interests, beliefs, prior knowledge, and experiences" (p.178). The physical context includes an environmental condition throughout the museum experience such as any rules enforced by the museum, the building as a whole, or the layout and placement of exhibits and facilities. Lastly, the social context is defined by any social interaction that occurs within the museum. These social interactions could be between families, friend groups, strangers, or faculty and visitors. The quality of these social interactions, as well as the physical setting and personal mindset of the visitor, all play into how a museum is perceived. According to this model, museum staff and

docents should then use this all three contexts as a guideline for crafting their own individual museum experience.

### **Contextual Model of Learning**

The Interactive Experience Model established the fact that museum learning cannot be easily defined cognitively and, instead, is heavily influenced by the physical, social, and personal contexts of the visitor. Falk & Dierking saw room for improvement on their model, however. While the Interactive Experience Model seeks to frame the museum experience in contexts, they did little to identify what the museum experience was (Sheng & Chen, 2012). Therefore, they refined their first model, breaking down each of the contexts into subcategories and added in a fourth context, time, to complete their model and create the Contextual Model of Learning (Chang, 2006). Falk & Dierking acknowledged that museum learning did not take place solely in the museum and instead was a process that drew on past experiences before the museum visit and connections made long after the museum visit has concluded. By accounting for educational experiences before, during, and after the museum and by refining their first three contexts into subcategories, Falk & Dierking created the Contextual Model of Learning (Falk & Storksdieck, 2005). The contexts are as follows:

#### *Personal context:*

1. Visit motivation and expectations
2. Prior knowledge, experiences, interests, and beliefs
3. Choice and control

#### *Sociocultural context:*

4. Within group social mediation
5. Mediation by others outside the immediate social group

#### *Physical context:*

6. Advance organizers and orientation to the physical space

7. Design and exposure to exhibits and programs (large scale and small scale)
8. Subsequent reinforcing events and experiences outside the museum

**Personal.** As identified previously, the first aspect of the visitor experience is that of personal contexts. This argues that all museum learning and experiences are intrinsically tied to a person's internal motivations, expectations, beliefs, prior knowledge, and interests (Falk & Storksdieck, 2005). By understanding these internal factors that influence the museum experience, museum staff and curators can create experiences that satisfy people's expectations and motivations for attending a museum in a way that aligns with their existing beliefs and convictions.

***Visitor motivation and expectations.*** Falk and Storcksdieck reasoned that every museum visitor enters with an expectation of what they plan to get out of the museum, also identified as their agenda (2005). The motivation, therefore, to attend a museum is to gain some benefit or positive experience from attendance that contributes to their own concept of personal growth (Doering, 1999). If the visitor's expectations or agenda of self-development is achieved, then learning has occurred, and learning is hindered when museums fail to align with their visitors' agendas of self-development.

This search for internal growth is reminiscent of Maslow's Hierarchy of Needs. This hierarchy argued, as an explanation of student behavior in the classroom, that student behaviors and motivations are intrinsically linked to their basic human needs. He classified them from the most preeminent to the least apparent: physiological needs, safety needs (physical and emotional), belongingness or love needs, esteem needs, and self-actualization (Wahba & Bridwell, 1973). The most basic needs, physiological needs, are easily satisfied through eating, drinking, using the restroom, whereas the most complex needs, self-actualizing needs, are only satisfied when people reach personal goals and feel fulfilled.

As some parallels have already been drawn to the classroom, it is relevant to consider Maslow's hierarchy of needs as it pertains to the museum, being an educational institution. If anything, museums should at least be paying some form of attention to each of these needs. Just as museums should satisfy basic physiological needs by providing easy access to restrooms and drinking fountains, museums should also be conscious of providing its visitors with opportunities for positive and relevant social interactions between guests groups and between guests and museum staff or docents. When these needs are satisfied, learning is most easily facilitated. Museums can accompany their visitors in their quests for self-actualization by better understanding their audience and what they seek to gain from attending their particular museum.

***Prior knowledge, experiences, interests, and beliefs.*** All learning takes place within the context of what the learner already knows. Museums therefore must make attempts to address the base knowledge of their visitors in order for their content to be comprehensible and accessible. No visitor enters with the same base knowledge, so it is the museum's responsibility to provide information that is accessible for the least educated audience while not insulting to their more educated visitors (Falk & Storksdieck, 2005). Knowing that all museum visitors enter with different preconceived notions, life experiences, and knowledge, it can be argued that the learning that takes place in the museum is "highly personal" (p. 123). Understanding the personal nature of museum learning, museums should find ways to support visitors in creating their own unique experience within the museum without threatening their own schema of the world around them.

***Choice and control.*** Learners generally respond positively when they feel they have the ability to influence the outcome of their learning (Falk & Storksdieck, 2005). By fostering self-efficacy, free-choice learning allows students the opportunity to take control of their learning and

make it a more personal experience. Museums in general are free-choice learning environments. Most museums afford visitors the chance to free roam the entire facility, and pay attention to the artifacts or exhibits that most interest the individual. Tours offer more structured learning environment with less control in the hands of the visitor. The positives and negatives of both structured and free-choice learning environments, as they pertain to visitor preference and expectations, should be considered by museums when creating exhibits, displays, or tours.

**Sociocultural.** Museums, just like the classroom, are highly social environments. Many people attend museums for more social reasons, i.e. a family vacation or a date, as opposed to any self-actualizing goals. Museums serve as a social environment for groups of people, and very often, people place more emphasis on social interactions that occurred during their museum compared to any knowledge that was attained (Falk & Storksdieck, 2005). The quality and nature of interaction between people in the museum setting often plays a large role in the learning that takes place. Two main social interactions occur during the museum visit: interaction between visitors (usually within an identifiable social group) and interaction between visitors and museum staff, docents, or tour guides.

***Within social group mediation.*** The public views the museum experience as an inherently social one (Falk et al., 2004). As addressed, many people visit museums purely for the social interaction that is an outcome of a museum experience. In museums, people have opportunities to undergo new experiences with acquaintances and use these interactions as “vehicles for deciphering information, for reinforcing shared beliefs, for making meaning” (Falk & Storksdieck, 2005). Museums should understand the social nature of their institution and be sure to encourage opportunities for visitors to engage in positive social interaction.



***Mediation by others outside the immediate social group.*** In the museum, information is often passed from a knowledgeable guide or docent to the visitor. The facilitator of knowledge is usually “explainers, docents, guides, or performers” (Falk & Storksdieck, 2005, p. 124). They play a role as a source of information, and generally assume that their guest is not knowledgeable on the subject at hand. If museums can effectively carry out mediation by others outside an immediate social group, learning can be greatly reinforced.

**Physical context.** The physical context learning takes place within is significant and warrants attention. If visitors find their physical setting distracting or aesthetically displeasing learning may be inhibited. Falk and Storksdieck argue that “lighting, crowding, presentation, context, and the quantity and quality of the information presented” all play into the physical context of a museum (2005, p. 121). Additionally, the Contextual Model of Learning improved upon the Interactive Experience Model by taking into the account the time period with which the learning takes place. This acknowledges that learning in museums is not confined to the physical limits of the museum itself. Important learning and “meaning-making” occurs before visitors even enter the museum and long after they have left its confines.

***Advance organizers and orientation to physical space.*** People are proven to learn better when there are relevant organizers and pieces of information provided in advance of the museum experience (Falk & Storksdieck, 2005). This allows visitors to create accurate expectations of their museum experience and enter the museum with the necessary information to make accurate interpretations of content within the museum. By providing museum guests with relevant background and realistic expectation of the experience ahead, they are made to feel more comfortable, which is conducive to learning. The same can be said about the orientation of the

physical space of the museum. If a museum is laid out in a cumbersome or illogical manner it can disorient visitors and hinder their learning.

*Design and exposure to exhibits.* The design of exhibits and how people are exposed to these exhibits is worth the museums attention. Just as the entire physical setting of the museum should be accessible and unthreatening. Similarly, exhibits are an experience unique to the museum and represent a form of media more immersive than watching a screen or reading a piece of text. Exhibits should be aesthetically pleasing and easy to understand so visitors can construct meaning around the exhibit.

*Subsequent reinforcement and experiences outside the museum.* In expanding the definition of the learning environment of the museum beyond the confines of the physical building, Falk & Storksdieck placed an emphasis on the reinforcing events that occur after the visitor has left the museum (2005). Information in the museum is connected to the outside world, and when people encounter these connections to their museum learning, it adds to the meaningfulness and value of the museum experience as a whole.

### **Using the Models to Define and Enhance Learning**

By utilizing the models discussed previously, museum directors and educational specialists can gain insight into the “characteristics of museum visitors, varieties of their learning process and behavior, and the nature of their museum experiences so that visitors can be led to have meaningful learning experiences” (Chang, 2006, p. 182). This is no simple task, however. Upon review of the models, more questions are raised than are answered. In its truest sense the Contextual Model of Learning (CML), the most widely accepted model for museum education, is not even a model. Rather, it suggests that learning in museums is a complex phenomenon situated within layers of contexts, most of which are out of the museum’s control. While the

CML breaks down museum learning into eight subcategories, the authors admit there could be hundreds or even thousands of different factors that influence museum learning (Falk & Storksdieck, 2005, p. 747)

This sets a daunting task for museum staff and educational programmers but, at the same time, establishes a lens for museum educators to analyze and assess their tours, exhibits, and activities. According to the CML and Interactive Experience Model, museums should most certainly be cognizant of the different contexts that play into the museum experience. The personal, social, and physical contexts all play into how the museum is received and what museum educators take away.

To accommodate the personal context of the museum visitor, staff should have a close relationship with their audience in order to meet the expectations and agenda of attending (Falk & Storksdieck, 2005). The agenda for attending a museum could be for a leisurely social activity, a chance to gain academic knowledge, or have an emotional and personal experience (Doering, 1999). This may entail evaluating visitor satisfaction after the museum experience, or even performing demographic surveys on a museum's audience, and their agenda, to gain a better idea of the population it serves. Having a relationship with the public allows the museum to frame itself in a positive light in the eyes of the public and attract new audiences (Chang, 2006).

In regards to the personal context, enough background information should be provided for all visitors to experience the museum equally, and opportunities should be available for visitors to integrate new information with their prior beliefs, interests, or experiences (Doering, 1999). This allows for the museum experience to become highly individualized and memorable. In order for museum visitors to integrate their own beliefs and prior experiences into their museum

experience, museums must respect the “values and norms” of the different cultures that may enter the museum, and utilize relevant exhibits, tours, and activities that are accessible to all cultures (Chang, 2006, p. 184). Lastly, the museum experience should offer the chance for free choice and exploration so the visitor can have a unique experience and engage in the information that interests him/her most.

To be sensible of the social context of the museum visitor, museums should provide opportunities for visitors to have meaningful social interactions with both their own social group and museum staff. A common agenda for attending the museum is to socialize with a close friend or loved one, and if visitors are not afforded the chance to talk amongst each other and share their own opinions, beliefs, and knowledge, they may leave the museum dissatisfied. Interactions with museum staff, be it a docent, clerk behind a counter, or actor portraying a role, are also important to the museum experience (Falk & Storksdieck, 2005). These roles often play a force in facilitating learning and reinforcing the overall message of the museum.

Lastly, in order to accommodate the physical context of the museum, museums must be aware of the physical orientation of their building. If the building as a whole, individual rooms, or exhibits are confusing or inaccessible, learning will be disrupted (Falk & Storksdieck, 2005). Furthermore, museums should do their best to satisfy the physiological needs of all their visitors during their experience by providing proper access to water fountains, restrooms and providing an environment that is neither too cold or warm. It has been acknowledged that museum learning is not confined to what takes place simply within the walls of the museum. Rather, the expectations and knowledge people enter with and the connections they make to their experience after the visit all come to encompass the “museum learning experience”. Therefore, museums should provide their visitors advanced organizers that allow them to set clear and realistic

expectations before entering, and create opportunities for visitors to connect their later experiences with their learning obtained. By properly accommodating the physical needs of visitors and widening the scope of the “museum learning experience”, museums do their due diligence in providing a conducive physical environment for learning.

All in all, the CML is not a model and does not allow museum educators the ability to make real predictions. Rather, it serves as a broad framework from which museum staff can view learning as a “complex phenomenon” dependent on a variety of different contexts (Falk & Storksdieck, 2005, p. 745). If the CML provides museum staff with any knowledge about museum learning, is that it is starkly different than classroom learning and will not follow a “prescribed and predictable course” (Falk & Dierking, 2000, p. 152). Instead, museums should do their best to create a diverse and wide ranging learning experience that is both accessible and engaging for all visitors, regardless of prior knowledge or cultural background. This is not achieved through a simple step-by-step process, but rather, through painstaking detail to the three contexts of museum learning.

### **Linking the Museum and the Classroom**

As has been established, due to a decrease in federal funding, museums must attract visitors to raise funds for operations, and have therefore evolved into institutions aimed at educating guests and providing memorable experiences. If museums have an obligation to serve their community and visitors, then the assumption should be that museums should serve schools and their students as well. As the number of museums and museum visitation in general has expanded, there also has been an increase in the capacity that museums aid in classroom education. According to the Institute of Museum and Library Services, “In the year 2000 and 2001 seventy percent of the museums that responded to a survey reported growth in the number

of schools and students they served over the previous five years” (Institute of Museum & Library Services, 2002). Despite the increase in interaction between institutions, a disconnect still seems to exist between both sides (Wright-Maley, Grenier, & Marcus, 2013). The barriers that impede collaboration between museums and schools range from logistical difficulties presented to teachers by field trips, increased accountability from standardized testing, and lack of communication between the two parties. This will be addressed in detail later, but in order to make the case to museum staff and school teachers alike that these collaborations are worthwhile, the benefits to learning of museum field trips must be established.

A multitude of studies have undertaken this task and all come to similar conclusions. A survey completed by Walker published in the *Bulletin of the Ecological Society of America* found that participants who had any field trip experience were more knowledgeable about local natural history than those without (1994). In fact, it found that those with field trip experience had a better knowledge of local natural history than participants with a biology degree, suggesting field trips were better sources of knowledge than college degrees. While it would be irrational to suggest field trips are a replacement for a college degree, this finding does point to the significance and memorable nature of field trip experiences for students.

A study conducted by Falk & Dierking found that early elementary field trips are important events in children’s educational careers (1997). Upon asking participants who had taken field trips in elementary school, they found that field trips were easily remembered down to specific details. Participants were often able to recall “salient and indelible memories” of their museum experiences (Falk & Dierking, 1997, p. 216). While the museum guests interviewed mainly recalled social events or details regarding the physical setting, almost all participants were able to relate to something they learned during the museum experience years after they had

visited. Knapp (2000) found that museum experiences could be so influential that some scientists in a survey cited museum visits as an influence for their career choice. If museum experiences can be this memorable and influential, then why are teachers and museum staff still hesitant to maximize the benefits of this mutually beneficial educational experience?

To address this problem, this research will first address the inherent similarities and differences that exist between the museum and classroom learning environments. Once these contrasts have been made, the barriers that hinder museum-school collaboration can be identified. Finally, anecdotal evidence of successful museum-school collaboration will be provided to identify the best methods for enhancing museum-school collaboration.

### **Similarities and Differences of the Museum and Classroom Settings**

In order to bridge the gap between the institutions of schools and museums, the similarities and differences of the respective learning environments should be distinguished. While museums and classrooms share similar goals in education, their methods are vastly different. Joseph Schwab (1969) developed a broad model for defining learning environments which relied on four commonplaces: “subject matter, teacher, students, and milieu (setting)” (Vallance, 2004, p. 344).

**Subject matter.** Just as a classroom has a set of knowledge or skills that students are required to learn, a museum inherently has subject matter, messages, or skills that they hope their visitors leave with. In the case of a national history museum, the museum staff would hope their visitors leave with a better understanding of their nation’s history and a sense of national pride. A science center might hope their visitors leave with a better understanding of scientific concepts or experimental investigation. The information a museum or teacher wants a student to learn is

the curriculum, and when museum and classroom curricula align, the opportunity for collaboration arises.

**Teachers.** Museums very often have teachers who are responsible for the facilitation of learning. In the classroom this is almost always a teacher. On occasion interactive activities or videos take the place of the teacher but this is against the norm. In museums, a docent or tour guide can serve as the “teacher”, but often the teacher can be an exhibit, wall display, or audio tours (Vallance, 2004, p. 345). While the role of the teacher may be non-traditional in museums, both the classroom and museums have vehicles through which the curriculum is delivered.

**Students.** Both museums and classrooms have “students” who are the recipients of knowledge or curricula. Two major differences exist between classroom students and museum visitors (1) museum visitors subject themselves to the museum experience voluntary whereas classroom students are often a captive audience and (2) classroom students and teachers are often much more familiar with each other than museum staff and their visitors (Vallance, 2004).

**Setting.** The difference between the classroom and museum setting is significant. While classroom learning usually takes place in one specific setting over an extended period of time, the museum experience is generally a lone occurrence within the lives of visitors. The physical differences between the museum and classroom are evident, but the less noticeable are the most influential. The most significant difference between the setting of the classroom and museum is the structure control that is placed over learning. While in the classroom learning is monitored closely and assessed persistently, the most consistent evaluation of learning that takes place in the museum is in the form of surveys that only inquire over visitor satisfaction and demographic statistics (Vallance, 2004). This disparity in assessment is the most relevant difference between



the museum and the classroom and contributes to the disconnect between museum staff and teachers.

**Assessment.** While museums constantly evaluate their visitors, count how many of their visitors are taking advantage of “special exhibits”, and compile positive reviews, there is no real method employed by museums for evaluating if learning objectives were achieved like in the classroom. As will be later identified, this insufficient emphasis placed on assessment by museums may cause teachers to reconsider field trips to museums as an educational experience when balancing the pressure for students to succeed on standardized tests. A study by the Institute of Museum and Library Services found that three fourths of responding museums employed some form of evaluation and about half of all responding museums evaluated increased understanding of content (2002). However, lower percentages of museums evaluated student behavior and academic achievement. This is an encouraging trend, but should be expanded if the positive outcomes of museum-school collaboration are to be maximized.

### **Barriers to Museum-School Partnerships**

Museums and classrooms offer unique and varying experiences, but can be linked to provide memorable and hands-on learning for students. To bridge the gap between institutions, the barriers between the two must be identified. Barriers that prevent museum-school collaboration exist within both institutions.

**Museum staff.** Misunderstandings and hesitations prevent museum staff from effectively tailoring their museum experiences to the classroom audience. Doering suggests that traditional museums are hesitant to “pander” to their visitors and risk harming the original goal of the museum which is to preserve the collection and contribute to the academic community (1999). This beliefs rests on the assumption that museum visitors seek only entertainment and

amusement that lacks substance. This viewpoint would assume the museum staff is intellectually superior to their visitors, and firmly establish the museum visitor as a “stranger” at best.

Misunderstandings, specifically in regards to standards and learning objectives impede partnerships between museums and schools. Wojton (2009) argues the passage of No Child Left Behind by Bush, which heightened teacher accountability through standardized testing, was an impediment to museum-school partnership. As teachers are held more accountable for the academic success of their students, the less likely they will be to take advantage of museums as educational experiences. In order for museum field trips to take place, teachers and schools must be convinced that the museum field trip can directly align with standards and add to the learning that occurs in the classroom.

**Teachers and School Administration.** As was addressed, the need for field trips to align directly with state or national standards has continually discouraged teachers from taking advantage of museum as out-of-classroom experiences. Aside from this factor, logistical issues also seem to play a large part. Wojton (2009) found that very few if any teacher preparation programs taught teacher candidates how to plan or carry out a field trip. With this in mind, it can be understood how the thought of organizing a field trip can be daunting. School teachers and administrators are responsible for planning every detail, collecting permission slips, and assigning chaperones to the trip (Wright-Maley, Grenier, & Marcus, 2013). The same article found that often money and arranging transportation presents a significant difficulty in arranging field trips to museums, and Michie (1997) found that even classroom misbehavior could influence whether teachers took students on field trips. It is evident that several barriers hinder collaboration between museums and classrooms. This research will seek to provide methods and

examples of means that were utilized to successfully collaborate between museums and classrooms.

### **Anecdotal Evidence of Museum-School Collaboration**

By analyzing successful museum-schools partnerships, the most effective methods for museum-school collaboration can be determined. Firstly, “Hands-On Biology”, a collaboration between museum staff, public school teachers, and university staff to increase students interest in biology through the use of hands-on, museum based experiences, will be analyzed (Paris, Yambor & Packard, 1998). In this partnership, the museum offered the curriculum, provided instructional materials, instructed students, and held workshops for the classroom teachers (266). The schools provided teachers who were open and willing to use museums as an out-of-classroom experience, and the university offered docents for the programs and collected data. As a result of the curriculum designed by all three parties, students showed significant gains in interest in science and academic achievement as well as greater short term and long term goals for activities both within and without the school environment.

To ensure the success of the program, school teacher attended a three hour training program which detailed themes of the program, in class activities to link to the program before and after, and to establish a sense of collaboration between the three parties (Paris, Yambor & Packard, 1998). Teachers worked closely with museum staff and university docents and received full packets of all instructional materials and lessons that were included in the curriculum. The level of collaboration present in this program can be directly linked to the level of student interest and learning. Hands-On Biology provides a prototype of how organization and communication play a pivotal role in the success of partnerships between museums and schools.

In a similar effort to foster a partnership between the classroom and the museum, the Institute of Education with the University of London collaborated with four different galleries and four schools to program a curriculum that immersed students in the art firsthand (Burgess & Addison, 2007). The program provided evidence that successful partnerships between institutions can provide a positive learning environment. The pupils within the program had positive opinions of the program and viewed their experience as “new and significant” (p. 192). This program, contingent on successful collaboration between different parties with disparate motivations and goals, required all participants to actively partake in “critical discussions” of the progress of the program, “collections of data”, and “records of events and outcomes” (p. 186). Like Hands-on-Biology, clear communication, thorough coordination, and the alignment of goals allowed for a successful experience that was rewarding for the museums, teachers, and students alike.

**Methods of Enhancing Museum-School Collaboration.** The anecdotal evidence suggests that successful museum-school partnerships are possible, but only with close coordination. Wojton (2009) found that successful museum-school partnerships “will have four basic elements: mutual goals, communication plan, key leader support, planning and research, and four interpersonal elements: personal responsibility, honesty, communication at the intimate level, and trust” (p. 194). In short, museums must come to a common ground with the classroom so that they can work towards a common goal. A clear communication plan should be set to hold each part accountable. Leadership roles should be assigned to ensure the completion of tasks. Thorough planning should be done prior to implementation, and research should be used to justify instructional activities. Along with these basic elements, a partnership should also have a strong interpersonal element. Although no partnership is without its flaws, close relationships

should be built between the parties to help overcome institutional barriers and achieve mutual goals.

### **Local Application of Research**

The House is a Victorian style mansion completed in 1871 for John Henry Hower and his wife Susan Youngker Hower. Today it serves as a museum under the possession of the University of Akron with the sole purpose to preserve the home, the history of the family, and the Victorian tradition. I personally served as a volunteer intern with the museum, archiving historic artifacts, and also aiding in the programming of educational tours for third graders as part of Akron Public Schools' History Month. In this experience, I gained firsthand knowledge of how museums operate as well how to craft an effective learning experience for students visiting a museum. In the following sections I will provide a profile of the museum for context which will be supplemented by an interview with the museum's specialist, and my personal supervisor during my time there, Rebecca Wehr. Once the museum has been described, the extent and quality to which learning is facilitated will be evaluated using Falk & Dierking's Contextual Model of Learning (2000).

### **Museum Profile and Interview with Ms. Rebecca Wehr**

John Henry Hower moved to Akron from Doylestown in 1865 to open the Excelsior Mower and Reaper Company with John F. Seiberling. After going bankrupt he later found his wealth in the Hower Oats Company, which would be incorporated into Quaker Oats, and the Akron Selle Company which sold truck parts. Three generations of Howers would come to occupy the house, the last of which was Grace Hower Crawford who donated the house to the University of Akron as part of her will. Other notable family members include Milton Otis, an

established businessman, and his wife Blanche Bruot Hower who helped found the Weathervane Theatre in Akron and was also elected to the Ohio legislature.

This three floor and 28-room mansion was designed by noted Akron architect, Jacob Snyder, who is also well known for starting the “Akron Plan” used in churches across the country during this time period. Its Second Empire Italianate structure is one of the best examples of the architecture style in the country and includes a five story tower, a Mansard-style roof, decorative roof tiling, and large double doors. The rooms are filled with artifacts either associated with the family or indicative of the time period, and as such, the house is successful in giving the visitor the sense they are in the home of a wealthy Victorian during the 19<sup>th</sup> century. The house is run entirely on donations and operated by a limited paid staff and volunteers who run tours, clean the house, and aid in the archival of historical information.

**The audience.** The Hower House is clearly aimed toward an audience interested in the Victorian Era or those who simply wanting to learn more about Akron history. According to Rebecca Wehr, the Hower House’s museum specialist, younger demographics make up a disproportionately small amount of the Hower House’s yearly guests (R. Wehr, personal communication, April 8, 2016). Those guests fifty or older or within their retirement years are the most common visitors, and if younger people do attend the museum, it is generally with older guardians or family. Wehr noted that younger audiences do demonstrate interest in the museum when they are attending, but the key is bringing in those audiences who are less likely to attend on their own.

Wehr elaborated on possible means for expanding their museum’s audience and viewership. While most of their additional programming is geared toward an established clientele, such as Valentine’s or Mother’s Day Tea, new programming is expanding their

audience by attracting new demographics (R. Wehr, personal communication, April 8, 2016). She cited her conservation series of installments which have been geared at educating visitors into the different techniques that are required to store and conserve varying kinds of historic artifacts. For example, the art conservation series brought in a clientele interested in art or conserving artistic pieces, and their textile series, which featured a large Chinese tapestry, drew in a sizable Chinese population to the museum which was not present before. These expanded installments provide an opportunity and means for drawing in new demographics to the museum, furthering the services provided by the Hower House for the community.

**The obligations.** Today, the Hower House is a permanent exhibit located on the University of Akron and has been preserved since its acquisition by the university in 1970. The primary goal of the Hower House and its faculty is to do their absolute best to preserve the house to its condition when the Howers lived there and give visitors an accurate glimpse into the Victorian Era. Wehr, corroborated this belief in a museum's obligations in her personal interview (R. Wehr, personal communication, April 8, 2016). When asked of a museum's obligation to their visitor, Wehr argued that the main goal of the museum was to educate the community. She cited her personal experience in the education department of the Ringling Museum of Art where the primary goal for museum staff was to care for the collection, but the collection was used as a means to educate the public. In her specific position at the Hower House, she noted she has more of an obligation to the collection, but also has the unique opportunity to design exhibits, docent materials, and educational opportunities for students. When asked whether she views museum visitors as strangers, guests, or clients, Wehr confidently answered "guests". She emphasized the importance of tours to the experience of the Hower House which does suggest that the Hower House is focused on providing a service. This

situates the Hower House somewhere in the middle of the spectrum between the traditional and contemporary models of museums outlined above, likely leaning toward the latter. By viewing visitors as “guests” and not “clients”, the Hower House museum staff still reduces their visitor to the role of the empty container waiting to be filled with knowledge (Doering, 1999). Because the only mode of information delivery in the Hower House is through the tour, the Hower House’s experience is contingent on their visitors being comfortable and receptive to a structured and traditional museum experience. Were the Hower House to provide a more diverse range of learning experiences for visitors, they would grow into the more service-minded role of the contemporary museum.

**Serving the classroom.** Finally, Wehr detailed the ways that the Hower House provides services for local schools and classrooms. In her explanation of the obligations that museums have to the community, she made a point to specify school classrooms as an important audience of educational museum experiences. It is in this task that I have personal experience, as I worked directly with Wehr programming educational tours for third grade Akron Public students. When asked what makes a successful partnership between school teachers and museums, Wehr emphasized two components already outlined by Wojton (2009): communication and mutual goals (R. Wehr, personal communication, April 8, 2016).

Citing her own experience with the Ringling Museum of Art, Wehr identified the often unproductive relationship that curatorial and educational departments in museums can have. Curators are focused solely on conserving artifacts; whereas, the educational departments of museums utilize the assets and artifacts to provide a service to visitors. Wehr highlighted the importance of close and successful partnerships between the curatorial and educational departments of museums in order for students to have a successful educational experience. In



showing how museums, and especially the curatorial departments, can often be disinterested in providing educational opportunities to visitors, she emphasized the importance of mutual goals in a successful museum-school partnership. Museums must have a desire to educate students, and teachers must also view the museum field-trip as a relevant and important supplement to classroom learning. Wehr, being cognizant of the importance placed on standardized testing in classrooms, noted the importance of aligning the museum field trip to classroom standards and curriculum. By helping teachers achieve measurable learning objectives and work toward state and national standards, the view of the classroom field trip in the eyes of teachers can be remediated.

Lastly, Wehr noted the importance of the role that communication plays in the success of museum-school partnerships (R. Wehr, personal communication, April 8, 2016). She felt it was extremely important for thorough communication to be made both before, during, and after the field trip took place. During Akron Public's History Month, Wehr and I sent packets of background information (advanced organizers) as well a KWL chart to get students thinking about their prior knowledge and making expectations before the field trip experience. In order to improve our tours, we also distributed surveys to the school teachers after the trip to gain insight into their opinions of what was successful and what was not. This communication was limited, however, and pales in comparison to the lines of communication that were opened in "Hands-On Biology" for example, but still demonstrates the importance that Wehr places on communication between herself and school faculty. She also argued that if these lines of communication can be opened before entering the museum, teachers and docents can work together toward mutual goals during the field trip to maximize student learning (R. Wehr, personal communication, April 8, 2016).

### **The Hower House: Applying the Contextual Model of Learning**

Now that the Hower House has been profiled, its audience identified, and its modes of learning determined, Falk & Dierking's (2000) Contextual Model of Learning will be used as a framework for assessing the quality of learning. The Hower House will be viewed from the lens of the three contexts (personal, social, and physical) and will be assessed using their different subcategories. It is my hope that after this analysis is completed, myself and the staff at the Hower House will gain a better understanding of the learning that takes place, and therefore, will form a clearer pathway for improving the visitor experience.

**Visit motivation and expectations.** Wehr was conscious of the expectations that visitors enter the Hower House with (R. Wehr, personal communication, April 8, 2016). She felt that most often, visitors of the Hower House museum expect a traditional tour, and came to learn about Victorian living and the story of the family who occupied the house. Therefore, the museum attempts to use tours to tell the narrative of the family through the use of the architecture and artifacts found within the building. Further studies could be conducted to determine the average expectations of a historic home museum visitor, but Wehr's beliefs on visitor expectations and motivations appear rational. Visitors who expect more from a historic home museum may have unrealistic expectations. By the nature of a historic home museum, the goal of the museum experience is to transport visitors to the time period that the museum portrays. As such, elaborate displays with text and illustrations would detract from the originality and historic feel of the home. The subject-matter of museums may also not be conducive to interactive experiences in museums. Tour information in the Hower House consists mainly of the family's narrative, artifacts, and industrial influence on the area, and therefore, may not be best suited for discovery-based or interactive educational activities. Although, the

Hower House as a historic house museum is limited in its ability to accommodate all different types of learning, it is still capable of satisfying the motivations and expectations of their general and most popular audiences.

**Prior knowledge, experiences, interests, and beliefs.** In order to accommodate the variety of personal contexts that influence the museum experience, museums should provide new experiences that can be related to past knowledge and present new information that are conducive with the museum visitor's prior experiences, interests, and beliefs. Falk & Storksdieck (2005) found the museum learning experience to be highly personal and unique depending on the personal context of the visitor. Indeed of all the subcategories within the CML, this is probably the most abstract and difficult to quantify. The Hower House does seem to integrate new information with prior beliefs. For example, one of the most relatable facts found within the museum is that the Hower Oats Company eventually became incorporated into the Quaker Oats Company. The piece of information is presented with the clear goal of relating to the visitors prior knowledge of the Quaker Oats Company. This connection to personal interests, beliefs, and experiences is found throughout the tour. Museum curricula is regularly integrated into Akron history or technologies that are still used by people today. All these are attempts at creating personal opportunities for museum visitors to relate new information with their own existing knowledge or beliefs. It seems the Hower House successfully accommodates the ; however, most of the information or pieces about Akron history may be viewed as irrelevant to the visitor unless they are from the area or familiar with its history. As such, efforts should be made to address this shortcoming.

**Choice and control.** The Hower House provides limited opportunities for choice and control of the learning experience. If the house is visited during tour hours, the visitor can

receive a highly structured tour that is usually around sixty minutes and covers the entire home; otherwise, they will have to go on a self-guided tour with less structure yet less information. Because exhibits with text, illustrations, or videos detract from the historic nature of the home, the transmission of knowledge is placed almost solely in the hands the docents and museum staff. If a guest takes a self-guided tour, they only have small binders placed in each room to reference all the artifacts and basic information contained in that room. Therefore, the mode that allows the most free-choice learning is also the mode with the least amount of information provided. It is within the areas of choice and control over learning the Hower House could improve to create more personalized experiences.

**Within group social mediation.** During guided tours, Hower House docents are conscious of allowing interaction within social groups. As someone who has led tours and also taken a tour, the museum staff stresses the opportunity for guests to interact with each other and raise comments, interests, or questions regarding the material. Docents are asked to operate on a pace that keeps guests moving through the museum in a reasonable timeframe while allowing them time to take in their surroundings and interact with those they came to the museum with. While this interaction is encouraged, it is not necessary to gain the full Hower House experience. Perhaps tours that incorporate social interaction as a necessity for discovering new information could be an effective tool for enhancing social contexts within the Hower House.

**Mediation by others outside the immediate social group.** This aspect of the social context is a strength of the Hower House. Of all social interactions within the Hower House, the interactions between visitors and the museum staff are most common. Docents are effective at relaying information to their visitors and frequently ask questions to encourage participation. By

the end of the tour, museum visitors usually have gained a wide array of knowledge they did not have before, thanks to the direct interactions between museum staff and their guests.

**Advanced organizers and orientation to physical space.** Advanced organizers offer an area for improvement for the Hower House. While Ms. Wehr and I utilized advanced organizers during our educational tours with third graders (in the form of KWL charts and packets containing background information), the average guest to the Hower House receives no advanced organizer. For example, if marketing materials were distributed through the community more frequently or guests entering were asked to take some form of entrance survey, it would provide prospective museum visitors with basic, realistic expectations of what they plan to get out of attending.

The orientation of the physical environment is also important to the learning experience. However, the museum staff has little control over this. The museum staff is required to maintain the building's original form, not alter it, and as such, is limited into how much it can manipulate its physical setting. Factors like the placement of furniture, crowdedness of rooms, temperature, lighting and aesthetics are in the control of museum staff to some extent, but can only be altered within the constraints of the historic period. Considering the challenges, the Hower House has an accommodating physical environment conducive to learning. The home is aesthetically pleasing and comfortable to traverse. The layout and size of the house can be intimidating and distracting for visitors, but factors such as these are outside the control of the staff of historic home museums.

**Design and exposure to exhibits.** Exhibits are an immersive and effective learning tool with which the Hower House excels in utilizing. The very nature of a historic home museum allows for it immerse its visitors in the exhibits, for the exhibits and displays are the house and

rooms. There is no display on Victorian leisure. Rather, there is a ballroom containing common furnishings Victorians may have included in their own ballroom which were used for leisure. This creates for an immersive experience, which when coupled with a knowledgeable docent, creates a valuable learning experience. Rather, the greatest concern is that the rooms, or “exhibits” are presented in a logical manner which the Hower House attempts to do. Tours begin on the first floor, detail the Hower’s basic information, and move up through the floors of the house in a logical order as they tell the family’s narrative.

**Subsequent reinforcing events and experiences outside the museum.** Reinforcing events outside the museum are not something directly within the control of the museum, but can be influenced. In the case of the educationally programmed tours, Wehr and I attempted to reinforce the learning that occurred during the field trip by sending KWL charts to the teachers. It was our hope that teachers would have students fill out the K and W columns of the chart before the visit and then fill out the L or what they learned after the visit to reinforce the knowledge gained. This could be effective, but has no guarantee as it is outside the control of the museum staff. To better encourage reinforcing events after the museum visit, The Hower House could devise some sort of follow up experience for visitors. However, simply acknowledging that the learning experience is a complex phenomenon, that takes place well beyond just the museum setting, can help museum staffs design activities, tours, and exhibits that can be reinforced through later experiences.

### **Discussion and Conclusion**

In conclusion, there is much for a museum to consider when designing an effective learning environment. The personal, social, and physical settings all intertwine during the museum visit in order to create truly unique and individualized learning experience. The

Contextual Model of Learning creates a basic framework for addressing the different ways that learning occurs throughout the museum experience, and through its application of the Hower House, can be seen as an effective vehicle through which museums can enhance their visitor experience. In addition to following the CML, museums can enhance their visitor experience by both responding to their audience's needs and expectations and by using Hein's (1995) constructivist model of museum learning to allow visitors to create their own meaning during a museum visit. Furthermore, with the museum's increasing role as an educator, they have an obligation to serve schools and enhance classroom learning. By opening lines of communication, working towards mutual goals, establishing positions of leadership, and forming healthy relationships between institutions, the museum field trip can be an interactive learning experience which can enhance and contribute to classroom learning, not detract from it. By identifying these areas of improvement and working toward serving the museum visitor, museums can continue to develop more into the "contemporary" role as a social institution of education and farther away from the "traditional" role of simply maintaining the world's precious artifacts and information.

## References

- Burgess, L., & Addison, N. (2007). Conditions for Learning: Partnerships for Engaging Secondary Pupils with Contemporary Art. *International Journal of Art & Design Education Int J Art & Design Ed*, 26(2), 185-198.
- Chang, E. (2006). Interactive Experiences and Contextual Learning in Museums. *Studies in Art Education*, 47(2), 170-186.
- Dierking, L. D. (1999). Learning in the Museum George E. Hein. *The Public Historian*, 21(4).
- Doering, Z. D. (1999). Strangers, Guests, or Clients? Visitor Experiences in Museums. *Curator: The Museum Journal*, 42(2), 74-87.
- Ernst, K. M. (2002). *21st century roles of national museums a conversation in progress*. Washington, D.C.: Smithsonian Institution, Office of Policy and Analysis.
- Falk, J.H., & Dierking, L.D. (1997). School field trips: Assessing their long-term impact. *Curator*, 40 (3), 211-218.
- Falk, J. H., & Dierking, L. D. (2000). *Learning from museums: Visitor experiences and the making of meaning*. Walnut Creek, CA: AltaMira Press.
- Falk, J. H., Scott, C., Dierking, L., Rennie, L. and Jones, M. C. (2004), Interactives and Visitor Learning. *Curator: The Museum Journal*, 47: 171–198.
- Falk, J., & Storksdieck, M. (2005). Using the Contextual Model of Learning to Understand Visitor Learning From a Science Center Exhibition. *Science Education Sci. Ed.*, 89(5), 744-778.
- Hein, G. (1995). The Constructivist Museum. *Journal for Education in Museums*, 16, 21-23.
- Ingraham, C. (2014, June 13). There are more museums in the U.S. than there are Starbucks and McDonalds – combined. *Washington Post*.



Institute of Museum and Library Services. (2002). *True needs, true partners: Museums serving schools*. Washington, DC: Institute of Museum and Library Services.

Khan, N. (2000). *Responding to cultural diversity: Guidance for museums and galleries*. London: Museums and Galleries Commission.

Michie, M. (1998). Factors Influencing Secondary Science Teachers to Organise and Conduct Field Trips. *Australian Science Teachers Journal*, 44(4), 43.

“Museum Facts”. American Alliance of Museums. Retrieved April 07, 2016, from <http://www.aam-us.org/about-museums/museum-facts>

Paris, S. G., Yambor, K. M., & Packard, B. W. (1998). Hands-On Biology: A Museum-School-University Partnership for Enhancing Students' Interest and Learning in Science. *The Elementary School Journal*, 98(3), 267-288.

Schuster, J. (1991). *Introduction: Who are the visitors to art museums? The audience for American art museums*. Washington: Seven Locks Press

Sheng, C., & Chen, M. (2012). A Study of Experience Expectations of Museum Visitors. *Tourism Management*, 33(1), 53-60.

Thompson, J. M. (1984). *The Manual of curatorship: A guide to museum practice*. London: Butterworths.

Walker, L. R.. (1994). Field Trips as a Teaching Tool. *Bulletin of the Ecological Society of America*, 75(1), 22–23.

Wojton, Mary Ann. (2009). *A Study of Museum-School Partnership* (Doctoral dissertation).

Wright-Maley, C., Grenier, R., & Marcus, A. (2013). We Need To Talk: Improving Dialogue between Social Studies Teachers and Museum Educators. *Social Studies*, 104(5), 207-216.

Vallance, E. (2004). Museum Education as Curriculum: Four Models, Leading to a Fifth. *Studies in Art Education*, 45(4), 345-358.

Wahba, M. A., & Bridwell, L. G. (1973). Maslow Reconsidered: A Review of Research on The Need Hierarchy Theory. *Academy of Management Proceedings*, 1973(1), 514-520.