

CONNECT/CREATE: A CASE STUDY OF CHOICE-BASED RESOURCES
AT THE UNIVERSITY OF ARIZONA MUSEUM OF ART

by

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DEDICATION

I dedicate this thesis to Ely, my parents, and Celia. Thank you for your love and support.

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ABSTRACT

In this study, I examine how the University of Arizona Museum of Art (UAMA) can best serve the University of Arizona campus community by providing resources to professors that bring their classes to the museum. A review of literature connects research about learning in museums to k-12 choice-based teaching approaches. The methodology section provides an overview of data collection methods and an explanation of each resource used in the study. Through a qualitative case study, I use the collected data from interviews, visual analysis of student resources, and researcher notes to discuss and analyze the research questions. The findings result in the development of a resource for the museum to provide additional information to professors. The study informs future research needs in museums and contributes to a growing knowledge of how visitors learn in museums and how museums best serve their visitor populations.

CHAPTER ONE: INTRODUCTION

The University of Arizona Museum of Art (UAMA) is home to a phenomenal collection, including one of the largest donations from the Kress Foundation (Glesne, 2013). It provides “access to art of a high caliber in [an area] where such access is limited” (Glesne, 2013, p.68). Yet, the UAMA, like many university art museums and larger institutions, struggles to entice the campus population to use these great resources. For example, approximately 10% of the undergraduate population visits the museum each year (UAMA Admissions, 2016). Despite progressive changes in museums overall, art museums in general are often seen as not participatory or relevant to millennials’ lives (Center for the Future of Museums [CFM], 2010).

As a graduate assistant for the education department at the UAMA, I was tasked by the educators at the museum with developing resources for museum visitors, with a focus on k-12 resources for the museum website. Since I began my project creating k-12 resources, I drew on my experiences as a middle school art teacher at a private k-8 school in Chicago. When I was teaching, I ran my classroom using a combination of the *Studio Thinking* Framework (Hetland, Winner, Veenma, & Sheridan, 2013) and Teaching for Artistic Behavior (TAB) (Douglas, & Jaquith, 2009) approaches to differentiate for all learners and provide choice within my lessons.

When I began to do research on learning and participation in museums, I was surprised to find that, although museums are acknowledged to be places that thrive on free-choice and self-directed learning, there are few resources that can

be found at the start of a museum visit beyond a map, self-guided tour, or audio guide to help guide the visitor's experience. In a museum setting, knowing how to self-direct your visit and feel empowered to use the museum as a resource can be referred to as museum literacy. This learning does not discriminate by age or history; adults and children from a range of cultural and socioeconomic backgrounds are at all different levels of museum literacy (Hein, 1998; Henry, 2010). It was clear that fostering museum literacy is an essential goal for museums; as an academic museum, the UAMA has many populations to serve: The University of Arizona Campus, the Tucson community, and visitors from all over the world. After identifying a need to better serve all audiences, rather than creating completely different resources for k-12 education and the rest of the visitor population, I began pursuing a new project that served all visitors who came to the UAMA.

Through my research about learning in museums and museum literacy, I found a wealth of information about in-gallery participatory exhibits, resources, and activities, as well as extensive information about how visitors learn in museums. These two ideas, of participation and learning in museums, had direct connections to the established k-12 education resources that I used successfully in my classroom. I set out to fill this void by creating a TAB-inspired choice-based resource center called Connect/Create in the museum lobby. This station provides all visitors with a variety of tools to choose from to engage with all the galleries in the museum and develop museum literacy skills. To study the effectiveness of this

table, I will conduct a case study to analyze how the Connect/Create resource center best serves one of the museum's main populations: the campus community.

Research Questions

How does Connect/Create foster museum literacy for self-guided, undergraduate class visits to the University of Arizona Museum of Art?

Sub Questions

- How are these resources beneficial to the goals of undergraduate, self-guided class visits?
- What are examples of undergraduate student's views of the UAMA?
- How have professors used the UAMA before and what were their goals for self-guided visits?

Significance and Context

By the time every student graduates, it is highly likely they will have gone to the library to study, socialize, and research using the texts provided by the university. It is far less likely that every student can say they have done similar activities at the university art museum. In a case study of campus art museums with donations from the Kress Foundation, which included the University of Arizona Museum of Art (UAMA), Glesne (2013) explored how "exemplary" university art museums connect with their campus communities. Through interviews with administrators she recorded metaphors such as the university art museum as "laboratory" and "library" (p. 205-6). She notes how faculty and curators notice that, "some students excel in the museum environment in ways they do not in the regular classroom because art taps into personal interests,

knowledge bases and creativity” (p. 146). Despite these strong metaphors and observations of successes, the university art museum still struggles to get students, one of its core audiences, through the door (Bradley, 2009; Glesne, 2013).

Most adults do not visit museums. A report by the Center for the Future of Museums (CFM, 2010), the most recent report funded by the American Association of Museums to evaluate attendance, shows how the overall attendance of adults to museums between 1992 and 2008 dropped from 26.7% to 22.7% (p.12). The report set out to look more closely at the barriers and reasons why adults across various ethnic, racial, and cultural audiences “have a track record of not using museums.” Adults may not visit museums for the following reasons: “historically-grounded cultural barriers,” “the lack of specialized knowledge and a cultivated aesthetic taste,” “no strong tradition of museum-going habits,” and “the influence of social networks to encourage museum-going rather than other leisure activities—i.e., if none of your friends go to museums, you don’t go either” (CFM, 2010, p.13).

As part of the study, millennials, identified as adults between the ages of 18-29 years old, were interviewed representing the new voice of adult visitors, and also a group that does not frequent museums (CFM, 2010, p.22). These focus group conversations resulted in a call to action:

There is a rapidly emerging consensus that the most successful museums of the future will be places to hang out, engage and contribute: museums that blur the boundaries between ‘back of the house’ and the public side.

They will be moderators and filters of contributed wisdom and diverse perspectives, in addition to being sources of scholarship and opinion.

(CFM, 2010, p. 31)

How does the university art museum become the laboratory and library that many acknowledge it to be? Glesne (2013) reflects on how, during her study, she “wandered across two of the large campuses in the study asking directions to the art museum and received perplexed responses” (p.161). The main problem presented by Bradley (2009), Glesne (2013), and Anderson, Farrell, Linett, & Shapiro (2012), is simply that the typical university student on a campus with an art museum, who is not studying in the art department, needs to know that the museum is there, and, once they know it is there, they need to learn how to use it! Falk and Dierking (2000) echo the statistics from the CFM report: “somewhere between two and three out of every five Americans visit a museum each year” (p. 2). They continue with optimism, stating, “this number is likely to continue to increase so that...the majority of Americans will visit some kind of museum at least once a year,” which suggests, “a fundamental shift in the public’s perceptions of the role museums can play in their lives” (p.2). As Americans begin to increasingly value learning outside of traditional school environments, they are transitioning into a “Learning Society” (Falk and Dierking, 2000, p.212).

Positive Experiences and Learning in Museums

If museum attendance will begin to increase because people want to learn, then once museums can get visitors through the door, it is essential that they are able to learn and leave with a positive experience (Henry, 2010, p.25). In her book

What Makes Learning Fun?, Perry (2012) gives an example of a positive museum experience of an exhibit at the Children's Museum of Indianapolis. She explains how there was a computer labeled "parent information" which gave a menu of resources. A father in the exhibit chose "what can I do with my preschooler," and after reading the prompts, took his child over to the exhibit and used the resources to actively engage together. After this interaction, he approached Perry and asked if there were more exhibits that gave prompts, because he, like many museum visitors, "was at a loss about what to do. He wasn't incompetent; he just needed a jumpstart" (Perry, 2012, p.24).

We know that "people make meaning through a constant process of relating past experiences to the present" (Falk & Dierking, 2000, p.61). Museums are free-choice learning environments, which means that visitors are able to choose what they will attend to and learn during their visit (Falk & Dierking, 2000 p. 85). Falk and Dierking (2000) explain that there is a contextual model of learning: "learning is the process/product of the interactions between...the personal, sociocultural, and the physical" (p.10). The museum then has three opportunities for providing assistance to the viewer for them to have a positive learning experience: providing choice and control (personal), facilitating an experience (sociocultural), and designing exhibits to help orient visitors, provide clarity, and create connections with their prior knowledge (physical). The concepts are mirrored by Hein (1998) in his description of a constructivist museum. He explains that for the museum to design a positive experience, it

“must allow [visitors] to connect with what they see, do and feel with what they already know, understand and acknowledge” (p. 153).

Henry (2010) emphasizes that museums cannot only display artwork for those who already understand art and how to use the museum (p.28). It is imperative to understand that:

Within the total potential audience for museums and galleries we will find a span of learning experiences and aptitudes. Some will be beginners, and some will be capable scholars. Not all beginning or novice learners are children: nearly all adults are novices at something, and it might just be the subject matter of the exhibition that is being visited! (Hooper-Greenhill, 2013, p.84)

To address this challenge, Hooper-Greenhill (2013) suggests that museums identify their “target audiences” (p.85). By understanding who your most common visitor is, you can best provide a positive learning experience. For the UAMA, the campus population is one of their main target audience.

Housen’s (2007) Stages of Aesthetic Development “demonstrate that, regardless of cultural or socioeconomic background, viewers understand works of art in predictable patterns...[called] stages” (p. 172). One strategy that visitor differences can be addressed is through Housen and Yenawine’s Visual Thinking Strategies (VTS) (Housen, 2007, p.175). VTS is an approach that uses open-ended questioning to help visitors progress in their aesthetic development. Aesthetic development is structured into five stages, ranging from the first stage being simple responses, such as observing shapes and colors in a work of art, to

stage five, in which a viewer “having established a long history of viewing and reflecting about art, now willing to suspend belief...sees the object as semblant, real, and animated with a life of its own” (Housen, 2007, p.175). It uses open-ended questions that “lead viewers to hear and consider different points of view” resulting in fostering aesthetic development (Housen, 2007, p.176).

The Stages of Aesthetic Development help to contextualize why, as Hooper-Greenhill (2013) identified, visitors can find themselves “at a loss” for what to do in a museum. Falk and Dierking (2000) explain that most Americans have “a generic museum-going strategy” (p. 118). However, if the visitor is in the lower stages of aesthetic development, and they do not know what to do other than a “generic” strategy, then they will most likely not have as positive of a learning experience as they can. The more developed a visitor’s museum literacy is, the more confident they will feel in the gallery spaces and be able to connect to what they are interested in (Simon, 2010).

Museum Literacy

The only time many students who study outside of the art department visit the university art museum is with a class or as an assignment. Being both a target audience, and most likely “novice” visitors, the university museum needs to design their exhibits and resources to best foster these literacies so that the student leaves with a positive learning experience. The university art museum not only builds a relationship with the student, changing the perception of the institution as a positive place of learning rather than a stereotypical view of museum as

irrelevant to their lives, but also helps to change the statistics of adult attendance in art museums by fostering museum literacy in young millennials.

Museum literacy, as Mayer (2007) explains, is the “first documented foray into the postmodern when Stapp (1984/1992) proposed the transformation of the educational goal of museums to what she called ‘museum literacy’” (p.44).

Museum literacy adds to the idea of visual literacy, or knowing how to view visual culture, interpret it, and make personal connections. It gives a definition to the visitor’s ability to interpret works of art, utilize all museum resources, and see an overall meaning in the museum itself (Mayer, 2007). This idea is important because, to be able to foster visual literacy in a museum setting on one’s own, it is important for a visitor to be museum literate as well. If a docent or educator does not guide a visitor through a series of VTS questioning, as researched by Housen (2007), then the museum must instead provide resources that help foster museum literacy, which in turn will foster visual literacy as aspect of being museum literate.

There is “a growing shift in how literacy is being defined and what it means to be literate in the twenty- first century” (Albers & Harste, 2007, p.1). Albers and Harste (2007) add that “When naiveté is made conscious, a disposition is developed which allows us to tolerate ambiguity, uncertainty in the reading of art, and exercise judgment that is free from personal taste” (p.10). This statement could stand in as a definition for Housen’s fifth, and highest, stage of aesthetic development. While Albers and Harste (2007) mostly address the idea of being literate in technology, they do speak of being able to see and use the arts as a

literacy: “Aesthetics education... can enable learners to notice the noticeable, become appreciative and reflective, and understand the role of the arts in making life meaningful” (p.9). These skills begin to build upon what visitors gain beyond the contextual model of learning. Yes, visitors may learn facts, connect with their personal interests, or remember something from a museum when a future experience triggers that knowledge, but beyond that knowledge, a museum can help develop a visitor’s visual literacy and museum literacy so that they are best prepared to communicate in the modern world.

Entering the Museum

When a visitor enters a museum, they ideally are greeted and given, or are able to easily find, information about the galleries, current exhibitions, and museum facilities such as the restrooms and café. Although a basic idea, most museums do not provide these resources and information to visitors (Hooper-Greenhill, 2013, p. 89). Many texts present this as an important factor of the museum visit, but when they talk about the resources a visitor encounters in a museum lobby, the only resources mentioned are maps and self-guided tours. Most visitors do not use these maps, and those who pick them up do not feel they are very useful (Falk & Dierking, 2000). Frustratingly, many visitors often find themselves, “plunged into museums with no information about the institution...and no guidance about how to make choices as to what to do or see” (Hooper-Greenhill, 2013, p.91).

This information is essential when considering how to transform the university art museum in order to build its student visitor attendance. In the 2014-

15 school year, the UAMA had 94 self-guided tours from university classes and 26 docents led tours for university classes (UAMA, 2016). This means that the majority of the time professors are either having students visit on their own or as an unguided group. In order to best serve the needs of undergraduate university classes, the museum must provide a positive entry into the museum in addition to “guidance about...what to do or see”.

These resources must reflect Hein’s (1998) constructivist model of the museum. “There can be no learning or meaning making if there is no interaction...the visitor has to attend to something” (p.136). Nina Simon (2010) adds her voice to this conversation through her book *The Participatory Museum*. Like Housen (2007), Simon (2010) provides stages to her theory; however, within the idea of participation, rather than visitors fostering growth in their aesthetic development, the “me-to-we” design can fluctuate depending on the museum goals and visitor comfort (p.26). It is not a literacy that is developed, but instead different levels and types of participation. She emphasizes the idea of “audience centric”, which “the admissions desk, the map, and the docent tour” are typically not designed to be. Rather:

to novice visitors, maps and tours are not obvious starting points full of useful information...these visitors need to see how cultural institutions are relevant and valuable to their own lives, and the easiest way to deliver that is via personalized entry points that speak to people’s individual needs and interests. (Simon, 2010, p.35)

University art museum resources created for the start of a museum visit should be flexible. “Participants don’t need to engage with the same project in a uniform way or at the same level of commitment” (Simon, 2010, p.19) when considering the development of participatory resources. Some museums have begun to test out resources reflecting these goals. The Rijksmuseum began a “Start Drawing” campaign. They banned selfie sticks and discourage using cameras in the galleries; to replace the camera, the museum is giving every visitor a small sketchbook to draw in the galleries. The museum director commented that “we forget how to look really closely. Drawing helps because you see more when you draw” (Dunne, 2015, para. 2). Visitors reach to cameras as one of the “generic” museum going strategies. They want to share their experience, express themselves, and say, “I was here” (Simon, 2010, p.176). By providing a sketchbook at the beginning of a museum visit, the Rijksmuseum facilitates a change in the norm of museum going habits and encourages “closer looking.” With very little staff intervention, the museum fosters museum literacy and participatory experiences.

What about the visitor who does not want to sketch? Simon (2010) points out that not all visitors will want to participate. Using the knowledge of how visitors learn in museums, we know that every learner is different. The “Start Drawing” campaign is just the beginning of what is possible for a museum to provide to all visitors as they enter the art museum. While some may choose not to use these resources and explore the galleries in a traditional manner, other

visitors, especially “novices” will benefit from guidance of how to use the museum as a “laboratory” of learning.

Museums are catching up to progress in education. Until recently, “it was assumed that people would learn, be enlightened, and be entertained by their visits to museums without any reference to the study of visitors’ experiences” and museums were not assessed in the same way public schools were (Hein, 1998, p.5). Recent studies on visitor learning and experience by Falk and Dierking (2000, 2013), Glesne (2013), Hein (1998), Henry (2010), Housen (2007) and Simon (2010), challenge this idea. They present a new understanding of museums as places of meaning making. Rather than putting all of the emphasis on curatorial decisions and didactic labels, many museums are incorporating participatory activities, events, exhibits, and displays that engage the museum visitor and help them break away from the typical role of passive observer. Providing a choice of engaging, guiding resources at the start of a museum visit reflects the goals of new museum education.

Connections to k-12 Choice-Based Art Education

My prior classroom teaching practice centered on choice-based education. It was informed by both Teaching for Artistic Behavior (TAB) and the *Studio Thinking Framework*. The concepts from constructivist, post-modern museums presented thus far are nearly identical to those that shape k-12 choice-based learning approaches. As I read more about current trends and research in museum education, I chose to inform my choice-based resource station, which I named

“Connect/Create”, from the approaches that informed my classroom teaching practice.

Both TAB and *Studio Thinking* identify as approaches that teach 21st century learning skills. TAB is a curriculum that “emerges out of student-directed learning rather than explicit directions” (Douglas & Jaquith, 2009, p.1). Much like best practice for self-directed learning and free-choice learning in museums, “the constructivist setting in the choice-based art room promotes child-centered learning by meeting students at their own developmental level” (p.5). The key to achieving this is choice. The TAB classroom is arranged in centers. Each center offers a different art making medium, and students are encouraged to pursue what is personally interesting to them, which, as Falk and Dierking (2000) discuss, is how knowledge is constructed in museum environments as well. By providing choice, the TAB approach to teaching changes from every student completing the same project, to different types of interactions such as student independence, peer-to-peer teaching, and more effective one-on-one teaching time focused on the student’s interests. These same interactions can be modeled by Simon’s (2010) “me-to-we” design (p.26), which ranges from individual learning, to networked interactions, to socially engaged interactions.

What I took from TAB as a classroom teacher was the idea of honoring student voice, providing choices for built in differentiation for a variety of learners, and lessons that allowed for exploration and experimentation. However, I chose to use a modified TAB curriculum supplemented by the ideas of *Studio Thinking 2*. Hetland, Winner, Veenema, and Sheridan (2013) developed *Studio*

Thinking to show what, “[art] teachers teach, how they teach, and what students learn in their classes” (p. 4). *Studio Thinking* provides a vocabulary for where and when students learn, and what students learn, which the authors define as dispositions, a term appropriated from Perkins et al. (1993). A disposition is defined as a skill and the awareness of when and how to use the skill (Hetland et al., 2013). Relating this to museum education, it is a greater level of museum literacy, in its own context – art classroom literacy. These skills are called the Studio Habits of Mind, or SHoM: Develop Craft, Engage and Persist, Envision, Express, Observe, Reflect, Stretch and Explore, and Understand Art Worlds (Hetland et al., 2013).

Hetland et. al (2013) emphasize that *Studio Thinking* is not just for the art classroom, but are skills that can be learned in other art disciplines and non-art subjects. This idea helped me the most as a classroom teacher. I would use the vocabulary of *Studio Thinking* to frame successful, cross-curricular assignments when I collaborated with teachers of different disciplines. This flexibility, and having a personal history of success with using art to engage with and build those dispositions, makes *Studio Thinking* ideal for an art museum, and in particular a university museum that strives to connect with the entire campus and best serve its campus community.

The authors record that the *Studio Thinking* framework has been used in a few different contexts of museum and gallery education. They give examples such as the National Gallery in Washington studying if visitors could identify the SHoM in different artworks that artists used, to India Clark using the framework

to study college classes in museum galleries in 2011 and finding that galleries do facilitate SHoM (Hetland et. al, 2013, p.151).

Building upon these successes, the presented approaches and ideas in *Studio Thinking* and TAB, and my own teaching philosophy, I designed a TAB inspired resource center for the UAMA lobby. This center provides a choice of resources to all visitors. Each resource is designed to encourage SHoM and participatory experiences, which, if successful, will help to foster personal connections and museum literacy. Hetland et al. (2013) recognize TAB as a best practice in *Studio Thinking*, stating, “teachers can help students engage by setting up projects that include choice” (p. 59). TAB centers also follow the best practice of participatory projects. In TAB, you gradually add more materials to the centers (Douglas & Jaquith, 2009); for participatory resources, Simon (2010) encourages them to be released a little at a time in response to visitor interaction.

Connect/Create Station

The goal for my project at the UAMA was to develop flexible resources for engaging with the collection that provided choices of participation to all visitors when entering the museum. The center has four resources that cater to all visitors. Collaborative Sketchbooks foster silent conversations, an alternative mode of expression, and closer looking, Community-Created Self-Guided tours add community voices to the museum and guidance about artworks to focus on, a bookmark gives guidance about how to use social media as a 21st century form of literacy and interaction, and a log book allows visitors to set a goal at the start of their visit and reflect on that goal before leaving the museum. The center is

supplemented by a family-g geared interactive book, which acts as a modified version of the collaborative sketchbooks to allow the same types of interactions between groups with children. Connect/Create also includes a binder that provides resources for educators visiting the museum to develop curriculum. These two resources, while more specific in their audience, could also extend to all visitors as well as be used during guided visits by the docents and UAMA educators.

These resources would further be available as a specific set of curricular supplements to a university class on a self-guided museum visit. On the UAMA website, there will be a guide for how to use the resources university class visits to help create a successful museum visit that connects to the class curriculum.

There is a clear need to better serve the campus population and make the museum known as a resource. The current student attendance numbers are very low and do not account for repeat student visits. The UA has over 30,000 undergraduate students enrolled in the university; this means that less than 10% of undergraduate students on campus visit the art museum during an academic year (U.S. News, 2016)

In addition, the UAMA is an ideal location to pilot the concept of Connect/Create. Campus art museums are more progressive than many large institutions (Shapiro et. al, 2012). The UAMA already reaches out through diverse community programming and affinity groups. Choice-based art education approaches address 21st century thinking skills (Douglas & Jaquith, 2009; Hetland et.al, 2013). Choice at the beginning of a museum visit, and during a university class visit, will better serve the self-guided tours that come to the UAMA. Just as

choice in a TAB classroom allows students to identify their “preferred working style,” (Douglas & Jaquith, 2009, p.10) choice in museums “will enable people to choose the most appropriate mode” (Hooper-Greenhill, 2013, p. 84) of participation for themselves as learners.

This study focuses on the benefits of the Connect/Create center for self-guided, university class tours visiting the UAMA. If the UAMA is able to provide flexible, choice-based resources to undergraduate students visiting as a class, professors will have an accessible way to use the museum to connect to their classes and build 21st century learning skills, aesthetic development, and museum literacy. These resources will not only help encourage more classes to visit, but will make the UAMA more accessible to students who need guidance for a visit, resulting in a positive museum experience. “General wisdom has it that once people visit art museums, they are more likely to return” (Glesne, 2013, p. 156), and getting millennial undergraduates into the UAMA is the ideal start to best serving the campus.

Limitations

A limitation of this study is the visitor population being studied. While the Connect/ Create center was created to best serve all visitors to the UAMA, this study will focus solely on undergraduate students and their professors using the museum for self-guided tours. The main participant in this study will be millennials. Millennials have a unique set of literacies developed by modern technology and ways of communicating (Albers & Harste, 2007). They are unique

learners who do not represent the entire visitor population of the UAMA; rather, millennials represent one of the target audiences of the museum.

Another limitation is the size of the study. As a case study, this research project will provide data for two classes visiting the museum. Though the data will be a small sample, it will be used to improve the resources and share their uses with other professors at the University of Arizona.

Research Methodology

The limitations of this case study are two typical undergraduate classes. Data was collected on their visits to the UAMA. Seven student participants, as well as the professor of each course, participated in the study. These classes were identified with the help of the UAMA educators to select professors who have used the UAMA previously in their classes so that they can reflect on past experiences with class trips to the museum.

The case study data was collected through open-ended, pre- and post-museum visit interviews with the professors, and one post-visit interview with student participants. In addition, images of student resources after were used during the open-ended interviews to prompt questioning as well as analyzed as data to best understand how the resource was utilized.

After working with the professor to select which resources best suited their curriculum, I presented the possible choices of participation to the students during the class session before they were assigned to visit the museum. I also met the classes at the museum to distribute the resources and interview any students who wanted to participate in the study after their class visit.

Analysis and Dissemination of Findings

To analyze the collected data, I first used structural coding to group the data based on my research questions (Saldaña, 2013). Then, I used values coding and process coding to find themes and connections within the data (Saldaña, 2013). This data will allow me to analyze the positive and negative impact of the resources on student museum experiences as well as the observations, benefits, and difficulties expressed by the professors reflecting on how the resources connected with their curriculum. The images of the student resources were analyzed as a supplement to their interview data. I noted any differences in what they wrote compared to what they stated in the interview to gain a better understanding of how the resource helped facilitate their participation in the galleries.

Both the data collected from interviews and from analysis of student responses on the resources provide insight into how the resources help foster museum literacy development and support the class goals. This information will be presented to the UAMA staff and put on the museum website to be used by educators planning a visit to the museum.

Over the past 30 years, museum education has shifted to be an essential component of museum work. Mayer (2007) looks at how this change responded to “new art history” in which scholars pushed away the canon in favor of more open-ended interpretations free of right answers and brought “new museum education” to the field (p. 41). In a world of “new museum education” art museum visitors are no longer “passive receivers of professional interpretations” but instead “become active builders of personally relevant meaning” (p. 43). Museum educators must facilitate this experience for their visitors, but unfortunately still face questions of the function of art and museum education as a whole.

This chapter reviews current literature on museum education and choice-based education methodologies. These texts provide insight into their connections and methods for museums to best serve their visitors.

The first section of this review defines academic museums and museum literacy. The second section of the review looks at contemporary research about how visitors learn in museums. The last section gives an overview of k-12 choice-based approaches and how they can connect to and inform museum learning.

Definitions

Museum Literacy

In 1984, Stapp coined the term “museum literacy” (Mayer, 2007). Over thirty years since then, it is still a term that is being theorized and changed as museums constantly evolve to adjust to 21st century needs. Stapp (1984) defines museum literacy as:

...competence in drawing upon the museum's holdings and services purposefully and independently. Museum literacy therefore implies genuine and full visitor access to the museum by virtue of mastery of the language of museum objects and familiarity with the museum as an institution. In a word, the museum literate visitor is "empowered." (para. 3)

Museum literacy includes visual literacy, or the ability to decode and find meaning in a piece of art (Housen, 2007). Being empowered through the development of museum literacy skills, the visitor can feel confident using the museum as a resource for learning, meaning-making, and creativity. Building museum literacy can be one of the methods that museums can advocate for their importance and programming. Many, such as Simon (2010), frame museum literacy in terms of novice and experienced visitors. For example, she compares museums to volleyball courts:

Expert visitors and staff already know how to play. They are confident about how to use the space, what's available, and how to connect with content of interest. But there are many casual and infrequent visitors who would like to participate but don't know how to start. (p. 34)

Like a library, a museum is a resource that takes time to learn how to use its organizational system and resources.

In context of academic institutions, museum literacy skills development is essential for university class visits to foster student engagement, increase confidence when in the museum, and provide a positive experience overall.

Academic museums are becoming central to their campus, due in part to “the increasing importance of visual literacy”; “Students have long been expected to draw inferences when they read – now we recognize the need for them to be equally critical when engaging images” (Stomberg, 2012, p. 21). As academic museums connect with professors to help develop their student’s visual literacy skills, they must be able to provide guidance to foster student’s museum literacy as well.

Academic Museums

Academic art museums, or museums on college and university campuses, are more common in the United States than anywhere else; in the United States, academic museums are teaching institutions “while comparable organizations abroad are essentially research centers” (Zeller, 1985, p.87). They are also among the oldest art museums in the United States. For example, the Yale University Art Gallery was founded in 1832, decades before large art museum institutions such as the Metropolitan Museum of Art were established after the Civil War (Stone, 1993; Wallach, 1998). Many campus art museums were and still are the only civic art museums serving particular regions; depending on the region, campus art museums may have had an expanded audience early in their history (Zeller, 1985, p.90).

One of the main concepts that differentiate campus art museums from municipal art museums is the ability to take risks. Directors and experts today reflected that:

the core mandate of campus museums—making a curricular impact— [allows campus museums to] use different (or at least additional) metrics of success than the overall number of attendees, which is how most other kinds of museums have traditionally gauged success.” (Shapiro et. al, 2012, p. 4)

Campus museums must justify themselves to their main public – faculty and students – in order to survive. Compared to major institutions that are reluctant to change, campus art museums must respond to the educational changes and 21st century learning needs of their campus (McClellan, 2008).

Many academic museums today define their institution as a “teaching museum”. The Frances Young Tang Teaching Museum and Art Gallery, the first named teaching museum, defines the concept as an, “intent to make Tang exhibitions and museum use by students and faculty a significant aspect of the interdisciplinary undergraduate liberal art” as well as “regular use of museum galleries and collection storage as teaching spaces, and the principle that artworks can and should be used to advance knowledge across the disciplines” (Tang, 2017, para. 3).

Stomberg (2012) argues that due to their ability to foster “visual literacy, creativity, and interdisciplinary studies...college art museums [should share] with libraries a primary position in the intellectual life of the campus” (p. 21). Milkova and Volk (2014) echo this idea, explaining that at Oberlin College “One reason for faculty who brought classes to [the museum] was to “make students aware of the museum as an important campus resource” (p. 34)

In addition, due to significant donations such as the Kress Study Collection Program, of which the University of Arizona Museum of Art was the largest recipient (Glesne, 2013), “campus art museums help address inequities in communities’ access to art” (p. 255). As noted above, a “campus museum might be the only ‘encyclopedic’ art museum in the state, and Glesne (2013) adds that those she interviewed from the Midwest “in particular, talked about the limited access to museums they had as children” (p. 255). Thus, the campus art museum may be the first, or one of the only, art museums that students have been able to easily access throughout their lives. Campus art museums are typically free for the campus community, further increasing their approachability (Glesne, 2013).

Despite these ideals, the 18-24-year-old demographic of museum goers dropped from 23.7% to 18.3% between 2002 and 2012 (NEA, 2015). A group of museum directors and staff participated in discussion to create a “collective look” of campus art museums in an effort to gain a better understanding of their challenges and success. They noted

the increasingly complex challenge of both adapting to and helping shape the changing cultural milieu of students, whose generational ethos is ever more participatory, interactive, and focused on non-hierarchical social networks and the digital communication tools that mediate them (Shapiro et. al, 2012, p.5)

Through this understanding, current resources and programming created by academic museums should be “participatory” and include “interactive” elements to best serve the campus community. Increasing student attendance begins with

fostering museum literacy and promoting the museum as a valuable resource. As many students first visit their academic museum with a class, “building good working relationships with faculty is an investment that allows a museum’s campus outreach efforts to take root” (Jandl, 2012,p.130). The following section outlines current museum education research about learning in museums to inform the development of the outreach resources created for class visits to the UAMA in this study.

Learning in the Museum

Museum education departments commonly focus much of their programming on children and families. This became a norm after Tax Reform Act of 1969, when “there was now a clear rationale for museums to assume stronger educational roles” and, due to scheduling, elementary schools were the easiest to develop outreach opportunities (Henry, 2007, p.158). As education departments continued to evolve for all audiences “rather than being passive receivers of professional interpretations, art museum visitors become active builders of personally relevant meaning” (Mayer, 2007, 43). “Active builders” implies a choice-based authority where visitors are able to identify what and how to engage with in the museum. Henry (2007) notes that “to some degree” museums have always been free-choice places as the visitor can choose where to go, what to look at, and when to leave (p.159). It is the shift of visitors from being “passive receivers” in this free-choice environment that has been the focus of research and new methodologies in museum learning that have shaped many education

practices today. My research adds to this knowledge, looking specifically at fostering museum literacy through choice-based resources.

The Contextual Model of Learning

Falk and Dierking (2000) explain how learning happens in museums, which they define as free-choice spaces: “all learning is situated within a series of contexts...[it] involves three overlapping contexts: the *personal*, the *sociocultural*, and the *physical*”. They call this process “The Contextual Model,” in which “learning is the process / product of the interactions between these three contexts” (p.10). Throughout their research, Falk and Dierking (2000) concluded that this model “needs a fourth dimension—*time*” (p.11) as learning does not happen all at once, but is created in layers that can be replaced or added to for better comprehension and personal connection.

It is important to remember that developing museum literacy is part of this process, and can be obtained through The Contextual Model. When skills are acquired, a visitor can model this learning to another person they are visiting the museum with, which is a sociocultural interaction. An example Falk and Dierking (2000) provide is when a man took his daughter to a museum, “he was demonstrating to her how she could use the museum institution as a place for learning” (p.41). This idea can apply in higher education contexts if a professor or museum educator takes the time to provide modeling of how to use the campus museum as a resource. In a museum environment, first-time visitors spend much of their attention “absorbed in orientation, way-finding, behavior modeling, and general efforts to cope with novelty” where, in contrast, “the frequent museum

visitor...knows where he or she is going and how to behave and is able to focus more on exhibitions” (Falk & Dierking, 2000, p.55).

The physical space can also be shaped to encourage visitor engagement: museums must curate choices of engagement. “The number of choices presented in most museums imposes an information-processing challenge for the brain. Too many choices and the brain goes into overload” (Falk & Dierking, 2000, p.119). Keeping the visitor experience and needs in mind is key. As noted above, k-12 education has been a focus of past research, and Falk and Dierking (2000) look to elementary field trips to highlight that advance organizers for field trips often “fall far short of the ideal, primarily because maps are difficult for many visitors to use and the techniques are not well integrated into the museum experience itself” (p.196). Through pre-visit resources for group visits to museums, thinking of all types of visitors, museums can gear their planning towards sociocultural and physical needs of learning and instead provide clear guidance of choices and directions needed for a successful, meaningful visit. Because many visitors and groups prefer self-guided visits, these resources thus serve as a method of modeling museum literacy.

Self-directed and Adult Learning

Adults who understand how to participate in free-choice learning environments could also be called self-directed learners. Mirroring free-choice learning, self-directed learning (SDL) is when the main aspect of learning, “what the adult wants to learn and how,” is “at the discretion of the museum visitor...adult learners can decide when to visit museums and for how long to stay

(Banz, 2008, 43). SDL, unlike free-choice learning, is noted to occur in both formal and informal learning settings (Banz, 2008).

As hypothesized above, Banz (2008) assures that the “exhibition can actually serve as the facilitator in the teaching-learning transaction (for example, in a self-guided gallery or interactive experience)” (p. 49). This modeling can extend beyond the exhibition: “while independent thinking can be the only tool necessary for certain self-directed visitors others will find additional tools or optional facilitation helpful and welcome” (p.50). Lachapelle (2007) suggests that these tools “move away from an over-reliance on one-shot educational activities (eg. talks, tours, workshops) and instead commit to developing a longer-term educational relationship with their adult audience” which could be done through a series of classes, or perhaps also be provided with spaces designed for visitor needs. Advocating for visual and museum literacy development, Lachapelle (2007) adds: “short courses designed to teach art viewing strategies—offered perhaps over a period of several weeks—could go a long way in helping many non-expert viewers to advance in their use of art appreciation strategies” (p.127). All museums, including campus art museums, could add this strategy to their outreach programming as a choice for visitors.

Free-choice learning and SDL cannot be overlooked in formal education.

While

there is a need in our lives for formal education...[and] career-directed learning...so, too, there is a need for free-choice learning. The free-choice sector is where we can tap into a vast array of resources, where we are

provided an opportunity to explore the thousands of topics, whether shallowly or deeply, occasionally or frequently, that lead us to understand ourselves, our families, our society, and our world a little better...the free-choice learning sector, has been largely ignored and underappreciated for the profound impact it has on American learning. (Falk & Dierking, 2002, p.10)

The following sections highlight understandings of exhibition and programming design to best provide and model free-choice and SDL learning experiences in museums.

The Participatory and Constructivist Museum

The Boston MFA conducted a series of visitor observations to understand, “given what is known about the role of the personal context and the self in intrinsically motivated art museum learning experiences, how can museums create meaningful learning experiences?” They found that the answer was to “put learners in charge of their own experiences” (Longhenry, 2007, p.184). To do this, they understood the necessity in abandoning a “linear narrative...in favor of a constructivist environment” and having “art museum educators work with curators and designers to entirely rethink in-gallery interpretive strategies with an eye toward facilitating multilayered, self-directed learning” (p.184).

A constructivist museum space contains, “many entry points”, “a wide range of learning modes” and “a range of points of view” (Hein, 1998, p. 35). The biggest shift from just acknowledging museum spaces as free-choice learning environments, constructivist museum model embraces the ideal “that the museum

is not the repository of the ‘truth,’... the messages emanating from museums are themselves stories, narratives to be read and understood by visitors” (Hein, 1998, p. 151). Museums can and should embrace flexibility. Not only flexibility in modes of learning and points of view, but also flexibility in the meanings that are made.

Utilizing the theories of constructivist museum learning, Simon’s (2010) *Participatory Museum* questions “what does a cultural institution look like that gets better the more people use it?” (p. 85). Implementing the idea of presenting multiple meanings, Simon (2010) presents different methods of visitor participation in a museum. She defines a participatory cultural institution “as a place where visitors can create, share, and connect with each other around content” (Simon, 2010, p. ii). As museum literacy is developed, the participatory museum space provides clear directions and content that allow for “the diverse creations and opinions of non-experts” to be showcased (p. iii).

Often participatory museum interactives ask visitors to contribute their ideas, offering creative agency within a space that typically did not allow for alternate voices (Simon, 2010). Adding the outside perspectives of other visitors exposes “audiences to content that could not be created by staff alone” (Simon, 2010, p.203) and may help a visitor “feel more personally included in the institution when they see ‘people like them’ represented” (Simon, 2010, p.227). It is important to note visitor-created content does not automatically provide a better connection; However, “many cultural professionals are unwilling or unable to

produce content that is as raw, personal, and direct as that which visitors create” (Simon, 2010, p.230).

Museums can also provide “pull-content”, where museums “invite visitors to retrieve interpretive material rather than laying it out,” giving “them a kind of participatory power. They choose what to reveal and explore” (Simon, 2010, p.37). An example is the marketing campaign “*I Like Museums*” an “online directory of eighty-two museums in North East England that encourages visitors to explore ‘museum trails’ – short lists of institutions—that are based on audience interests, not institutional content” (Simon, 2010, p.36). The most common and familiar pull-content is the audio tour (Simon, 2010). As an older model of pull-content, audio tours have been modified to fit new technology and understandings of museum learning. They are no longer “necessarily static and sequential: the viewer can choose which works to see in whatever order desired and can choose to play or not play the accompanying audio...viewers can structure their own experience” (Henry, 2007, p. 159). Simon (2010) gives examples of other, more low-tech options of pull-content such as a “browsing sketchbook,” similar to a self-guided tour which gives information and subjects to learn more about in a small handout (p. 66). Another specific example from the Swedish Interactive Institute was a flashlight that “triggered interactive material” in an exhibit that explored a “historic blast furnace site” (Simon, 2010, p. 38). Booklets or flashlights are examples of using prior knowledge to add to “the ways people already use cultural institutions rather than forcing new behaviors onto visitors” (Simon, 2010, p. 66).

According to Simon (2010), both mediated, or experiences guided by a docent or educator, and non-mediated experiences can be designed around the Public Participation in Scientific Research (PPSR) models for public participation with slight changes to the language that describes them:

- In contributory projects, visitors are solicited to provide limited and specified objects, actions, or ideas to an institutionally controlled process
 - In collaborative projects, visitors are invited to serve as active partners in the creation of institutional projects that are originated and ultimately controlled by the institution
 - In co-creative projects, community members work together with institutional staff members from the beginning to define the project's goals and to generate the program or exhibit based on community interests
- (p.187)

Simon (2010) adds, “a fourth model...*hosted*...in which the institution turns over a portion of its facilities and/or resources to present programs developed and implemented by public groups or casual visitors” (p.187). No matter which method is chosen, the best practice to serve all visitors is to offer “a legitimate way to contribute to the institution, share things of interest, connect with other people, and feel like an engaged and respected participant” (Simon, 2010, p. 4).

Beyond the benefit of a meaningful museum visit and fostering museum literacy skills, participatory techniques can help develop 21st century skills (Simon, 2010, p.193). These skills are also developed in k-12 choice-based approaches discussed later in this chapter.

VTS and Aesthetic Development

There is one approach developed for museums that has crossed over the informal/formal education divide and is now also used in schools. Visual Thinking Strategies (VTS) is a learning strategy created by Abigail Housen and Philip Yenawine to help participants move to new levels of aesthetic development. VTS was informed by Housen's research, in which she defined five stages of aesthetic development: accountive, constructive, classifying, interpretive, and re-creative (Housen, 2007, p.173-5). The stages span the development from simple, list-like observations to critical thinking skills and interpretation. Housen (2007) stresses that "particular ways of processing – their stages-- must be taken into account if we are to design effective educational experiences" (p.175).

The process of VTS uses a series of open-ended, facilitated questions. Starting with "What's going on in this picture?", a facilitator, such as a museum educator or docent, listens to participant responses and "paraphrase[s] comments neutrally" while "point[ing] at the area being discussed" (Housen & Yenawine, 2017). The facilitator may ask a follow-up question to the participant "what do you see that makes you say that?", or prompt further inquiry from the group by asking "what more can we find?" (Housen & Yenawine, 2017). VTS activates, reactivates, hones, and directs participants' visual literacy skills by asking them to look closely and back up their statements with evidence. "Both adults and children already have" viewing skills, and participatory activities that guide thinking such

as VTS can foster the development of these skills and move participants between stages of aesthetic development (Yenawine, 2013, p. 8).

VTS has been most closely researched with k-12 schools and is the core curriculum presented on the VTS website. However, VTS is unique in that many recent studies have looked into how VTS can be utilized with adult and college audiences, embracing not only the engagement of these visitors but actually addressing skill development for older audiences. Yenawine and Miller (2014) highlight that “as it stands now, students enter college only a few weeks out of high school, and we expect them to learn in a much more challenging environment for which few are truly prepared (p. 2). They question, “if we expect clear, innovative, analytical, reasoned thinking and writing, what responsibility do college educators have to help students learn to think and express themselves in the ways that optimize [their] potential learning...?” (Yenawine & Miller, 2014, p.2).

While VTS can be facilitated in a classroom and with a variety of types of images, art museums are ideal locations for VTS facilitation. “Much of what we see in art is common to daily experience...people, places, things, expressions...virtually all that we experience or imagine finds its way into art of various times and cultures” (Yenawine & Miller, 2014, p.5). With art we can find the “personal” connection needed in the Contextual Model of Learning. In addition, because “works of art are also ambiguous in meaning, multilayered, intentionally open to interpretation, and often have symbolic and abstract elements; making sense of them offers great training for our minds” (Yenawine &

Miller, 2014, p.5), and art museum provides the ideal physical context for learning visual skills.

Examples of college curriculum that is taking advantage of VTS in art museums has been focused on medical and nursing students to hone their observation skills (Jasani & Saks, 2013; Moorman, 2013). Other programs outside of universities and colleges are using VTS. For example, CALTA21 facilitates VTS as part of their program to develop language skills for refugee and immigrant populations (CALTA21, 2017). Notably, CALTA21 provides additional resources to VTS as a resource, including a visual journal for participants to use during the program (“curriculum”, 2016). Another example of VTS beyond k-12 education is when the Everson Museum of Art created an interactive website module called “Look, Think, Share!”, which prompted visitors to digitally share similar thoughts to a VTS conversation (Everson, n.d.). Unfortunately, the module is no longer active and it does not appear other museums have created similar resources.

Choice-Based k-12 Approaches

Echoing changes in art museum education, there have been recent k-12 art education methodologies that address choice-based and self-directed learning in the art classroom. Though in line with research in museums, minimal connections have been made between the two areas of research. The following section provides an overview of the two main approaches used to help inform the resources created for my research study.

The Studio Thinking Framework

When No Child Left Behind (NCLB) was enacted, it changed the way teachers had to focus their class time. Hetland, Winner, Veenma, and Sheridan (2013) explain that, “because NCLB emphasized accountability in literacy and numeracy and not the arts, even though the arts were included as a mandated subject area, the result is even less support now for the arts” (p. 1). Art programs are being cut first because testing has become essential to the survival of schools, and the art programs that do remain need to prove themselves as significant. Hetland et al. (2013) explain how many have tried to prove that the arts can have a positive impact on testing and school success, however, many studies, even a study Winner and Hetland conducted in 2000, have shown, “no demonstrated casual relationship between studying one or more art forms and non-arts cognition” (p. 2).

The purpose of the research behind and the writing of *Studio Thinking* was “to find out what [teachers] actually teach and what students actually learn” in visual arts classes (Hetland et. al, 2013, p. 1). The original study conducted by Hetland et al. (2013) was completed through observations of two classrooms at art-focused schools, the Boston Arts Academy and Walnut Hill School, over 38 class sessions (p. xi, p. 25). While the authors never address why they chose the schools, it can be inferred that these classrooms provided models for the “ideal” art class experience through the length of a class period, the materials available, and the engagement of the students. After observing the classrooms, the teachers, students, and outcomes of the observed lessons, Hetland et al. (2013) identified four studio structures for learning and eight thinking skills they define as the

Studio Habits of Mind (SHoM) (p. 4-7). The studio structures are comprised of: Demonstration-Lecture, Students-at-Work, Critique, and Exhibition (Hetland et al., 2013, p.5). These structures do not need to occur for a set amount of time or in a certain order. Teachers rarely give information without something visual, always trying to accommodate multi-modalities of learning (Hetland et al., 2013). The studio assignments themselves are put in place to shape student's investigation of concept and/or material by posing one or more open-ended challenges (Hetland et al., 2013). Through reading the examples, it is clear that the choice within the lessons allows students to make personal connections and provides teachers the opportunity to help students one-on-one to identify and potentially modify the lesson so that it can best help them grow as an artist.

The SHoM include: Develop Craft, Engage and Persist, Envision, Express, Observe, Reflect, Stretch and Explore, and Understand Art Worlds (Hetland et al., 2013, p. 6). The SHoM are further defined as dispositions, appropriated from Perkins et al. (1993). A disposition is defined as a thinking skill that has “a trio of qualities” where it is not just the skill, but also the alertness “to opportunities to use these skills” and the “inclination to use them” that “comprise high-quality thinking” (Hetland et al., 2013, p. 1).

The authors clarify that, “the studio thinking framework is not a recipe for teaching studio classes, but rather a set of lenses for observing and thinking about teaching and learning in the visual arts and beyond” (Hetland et al., 2013, p.141). This statement is reflected in how they present the research and resources within *Studio Thinking*. With each SHoM and studio structure, the researchers provide

concrete examples of where, how, and when each occur, but do not give specific instructions for how to achieve that goal. Rather, it is a framework, and they encourage educators to use the SHoM and studio structures to reflect on their own practice, identify gaps, and work towards filling those gaps using suggestions and descriptions from the book. The *Studio Thinking* Framework also serves as vocabulary and context to show school administrations the value of art as a core class rather than a class viewed as extra or to help test scores and performance in other subjects (Hetland et al., 2013).

Teaching for Artistic Behavior

Teaching for Artistic Behavior (TAB) is a choice-based education theory created in 2001 by art teachers, for art teachers, and maintained by art teachers almost completely online. The founders call TAB a “grassroots” organization. One of the main goals of TAB is, “authentic learning opportunities and responsive teaching” (TAB, 2017). A TAB classroom is a space that mimics an authentic studio workspace through the belief that, “When students self-direct, they build understandings through inquiry and problem solving” (Douglas & Jaquith, 2009, p. 11).

A TAB classroom utilizes centers. The centers are stations focused on one type of art making that provide menus of instruction, clear organization, and accessibility of materials; a center is a “three-dimensional lesson plan” (TAB, 2017). The TAB website, however, makes it clear that, “centers refer to the learning environment and are not a methodology. You cannot be a “centers-based” educator, but you can be a choice-based educator who provides centers in

your classroom” (TAB, 2017). Centers allow for the successful facilitation of student ideas. They provide the opportunity for experimentation beyond what a student can experience in a traditional art classroom where all students complete the same project. TAB classrooms also allow for a potential mastery of a material which leads to peer-to-peer teaching and a development of personal style and voice.

Connections to New Museum Education

Both the Studio Thinking Framework and TAB connect directly to the rationale and process of new museum education methodologies mentioned in the prior section. TAB, like VTS, also validates all responses, “by respecting the child as an artist [in a TAB classroom], the art teacher sets the stage for authentic creative exploration” (Douglas & Jaquith, 2009, p. 2). Mirroring visual skills and museum literacy development, the TAB classroom, unlike a traditional discipline-based classroom which develops specific skills and knowledge, helps students develop a knowledge about “their *own* artistry” through being able to “self-direct their work throughout the year” (Douglas & Jaquith, 2009, p. 3). Like participatory and constructivist museum space, the:

choice-based learning environment provides space, time, varied materials and instruction, and a climate that is conducive to independent work and the development of artistic behavior. The classroom space is organized around studio centers complete with materials, tools, and resources necessary for each medium...students determine their own pace, based on the work they choose. Materials are accessible and plentiful. Instruction

comes in multiple forms: whole group, small group, individual, peer, and collaborative, as well as indirectly from visual references. (Douglas & Jaquith, 2009, p.5)

When developing VTS, Yenawine (2013) identified that although providing context for artworks “seemed to engage audiences,” participants of traditional art history based programming were not learning the information being discussed during a tour. “What visitors really needed...was permission to be puzzled and to think...the go-ahead to use what they already know to reflect on what they don’t: the first steps to learning” (p.2). In a Studio Thinking classroom, like VTS in a museum setting, students use “knowledge right now in a serious way for a complex and significant endeavor” (Hetland et al., 2013, p. vii). Hetland et al. (2013) define this as an “import paradigm,” where students learn information and tools to be used immediately.

Like TAB and Studio Thinking, participatory, constructivist spaces and programming such as VTS are developed to be choice-based, open-ended learning experiences. The biggest difference is that TAB and Studio Thinking are about the entire space, where participatory experiences in museums typically focus on one exhibit or one specific area. TAB and *Studio Thinking* also provide multi-modal visuals and relevant resources designed for student growth. Using TAB and *Studio Thinking* to inform museum education asks us to step back and look at how the museum as a whole is committing to developing visual and museum literacy for all visitors. As Eisner (1998) emphasizes, “we do the arts no service when we try to make their case by touting their contributions to other fields” (p.149).

Museums must, like k-12 art classrooms, show their true value of what they teach beyond connections they can make to other subjects.

Summary

This section provided definitions for museum literacy and academic museums. In addition, an overview of the research on museum learning k-12 choice-based teaching approaches, and the connections between the two concepts were described. The review of the literature about these topics provides a foundation to understand the context and significance of the Connect/Create resources used in this research study as well as the resources and elements that can benefit visitor learning and engagement in museums.

CHAPTER THREE: METHODOLOGY

This chapter outlines the research questions, methodology, and factors that guided this research study. The first section explains the research questions

developed to shape the study and data collection. In the second section, I will describe the resources that were developed for the Connect/Create center prior to the study and used during the class visits in this study. Following, the third section discusses the appropriateness of the qualitative research methodology utilized to gather data for this study. The fourth section presents a description of the site of research, participants, and data collection and analysis methods.

Research Questions

The research questions in this study stem from my interest in understanding how k-12 choice-based approaches to teaching could inform museum education. Before beginning my studies in graduate school, I was a middle school art teacher in Chicago. This role allowed me to observe the importance of developing visual literacy and confidence in making and discussing art. I developed my curriculum around the philosophies of choice-based approaches such as Teaching for Artistic Behavior (TAB) and *Studio Thinking*. As discussed in chapter two, these approaches focus on student empowerment by honoring student's voice, providing choice, and teaching students how to utilize the studio space as a resource.

My experiences as a classroom teacher created the foundation for an independent project I completed as a graduate assistant at the University of Arizona Museum of Art (UAMA) during the 2015-16 academic year. After speaking with educators at the UAMA, I identified areas where the museum needed additional educational resources. The UAMA wanted to provide more resources to all visitors, in particular for k-12 classes and university classes.

Utilizing my knowledge of choice-based k-12 approaches, the final product of my independent project is a choice-based resource station in the UAMA lobby called Connect/Create. Connect/Create, inspired by TAB and *Studio Thinking*, offers all museum visitors a variety of choices of ways they can participate in the museum. The resources at Connect/Create provide opportunities for visitors to record their opinions, responses, and questions to be used by other visitors and museum staff as well as develop museum literacy skills through the exploration of different approaches to participation in museum spaces.

This study is an investigation to better understand how Connect/Create can evolve to best serve UAMA's visitors beginning by looking at one of their main audiences: the campus community. In order to both better understand how Connect/Create fosters museum literacy development and how Connect/Create helps the UAMA achieve its mission statement, this study investigates:

- How does Connect/Create foster museum literacy for self-guided, undergraduate class visits to the University of Arizona Museum of Art?

In addition to this main question, the study also explores:

- How are these resources beneficial to the goals of undergraduate, self-guided class visits?
- What are examples of undergraduate student's views of the UAMA?
- How have professors used the UAMA before and what are their goals for self-guided visits?

Connect/Create

Connect/Create is comprised of different resources that provide visitors with choices of how they can participate in the UAMA galleries as they explore the museum exhibits. Resources for k-12 educators and college professors can be found in an educator binder at the resource station.

This study presented the professors that participated in the study with a choice of four different resources to use for their class visit to the UAMA. Two of the resources presented are available to all visitors to use during their visit at the Connect/Create table. Two additional resources are at the station, but are provided as examples for k-12 and college educators to look at in the museum using the educator binder to plan for a class visit to the museum. These two resources will be put on the UAMA website for educators to access, edit, and print for their visit. The following sections explain the function and concept of the four resources used for this study.

Collaborative Sketchbooks

Presented as a resource for all visitors, the Connect/Create table has nine collaborative sketchbooks. These sketchbooks are presented in a wire basket with a descriptive sign next to them that explains how they can be used. Further directions and suggested prompts can be found on the front and inside cover of the sketchbook. Visitors are encouraged to take a sketchbook and a pencil and use the book to respond to the art in the galleries however they would like. Participants are also encouraged to look at the entries already in the sketchbooks and add or respond to what other visitors have created, responded to, or questioned. I define collaborative sketchbook entries as “silent conversations,”

which have the potential to emulate similar conversations to docent or educator-led experiences, such as with Visual Thinking Strategies. In addition to being prompted to draw and write, museum visitors are encouraged to take photos of their entry and post it to social media to share the experience beyond the museum.

Collaborative sketchbooks follow in the footsteps of other art-based participatory sharing projects such as PostSecret, The Sketchbook Project, and the 1000 Journals Project. Being able to draw and express oneself can provide another mode of participation for visitors who feel hesitant to speak about the art they are looking at or have difficulty connecting by just passively observing an artwork. Hubbard (2011) explains, "When people slow down to draw from observation, details, and nuances that may not be immediately obvious reveal themselves" (p. 130). This can help visitors engage with the museum collection as, "non-discursive activities can help art viewers engage their bodies and emotions in response to an object [and] grant them access to aspects of a work that may elude linguistic discourse" (Hubbard, 2011, p. 131/2).

Many museums are beginning to encourage sketching in the galleries. Though it has not yet become a named approach such as Visual Thinking Strategies, museums such as the British Museum, which curated an exhibit about drawing to encourage sketching in the galleries, and Rijksmuseum, which launched a campaign to encourage visitors to draw instead of taking pictures, are embracing drawing as a promoted self-guided activity. The Rijksmuseum gave each of its visitors a small sketchbook and a pencil, citing one of the reasons as a

new study which “found that people were less likely to remember an artwork in a museum if they photographed it” (Dunne, 2015, para. 3).

Trust Your Instincts

Trust Your Instincts is a modified, guided format of a collaborative sketchbook offered as a half-sheet sized worksheet on the museum website for educators to print and use during their class visit. Because a class visit often requires students to take notes, this approach allows for the student to keep the physical copy, unlike with the sketchbook which they could only take a picture of their entry. It also allows for easier modifications by the professor if they download the file from the museum website and change the prompt to fit with their visit goals. Additionally, this worksheet helps prevent students from getting off track if looking at and responding to what is already in the collaborative sketchbooks if it does not fit with the goals of the visit.

In *Move Closer: An Intimate Philosophy of Art*, Armstrong (2000) writes that to become visually literate you must learn how to see versus simply look. Armstrong (2000) explains that we cannot just approach a work of art and “demand something special happens,” instead we need to see all responses as useful: “inhibition may occur if we dismiss reverie as ‘idle thoughts’ – too silly and impertinent to be allowed in an art gallery” (p. 63). Inhibition may also be caused because we do not know what to do with an undeveloped thought, which this worksheet helps overcome by providing prompts to guide thinking if the student needs additional guidance.

Trust Your Instincts asks the student to walk around the gallery and pick two works of art that catch their eye. They then are prompted to spend ten minutes with one work of art and then ten minutes with the second. Because we are not well adapted to looking at flat surfaces or objects such as sculptures and paintings for extended time (Armstrong, 2000), fostering the ability to contemplate a work of art helps the viewer become “visually aware of parts of the picture which our habitual rapid scanning tends to gloss over” (Armstrong, 2000, p.83).

Often the first thing a museum visitor wants to know or talk about is facts. Knowing information about a work of art allows someone to use that as a topic to talk about rather than their own opinions. Both the collaborative sketchbooks and Trust Your Instincts worksheet are designed to foster the ability to spend time with a work, contemplate and understand developing thoughts, and build connections between works of art. These skills, like in TAB and studio thinking, are known as 21st century learning skills, specifically critical thinking and creativity in context of this resource.

Curate a Playlist

Curate a Playlist is another resource available online for educators to download and print for their visit in addition to one copy being available in the educator binder at Connect/Create for lesson planning. This sheet prompts participants to develop a playlist of music inspired by the art in the museum. Educators can choose specific themes or exhibits for students to focus on for their playlists. For each song and artwork pairing, the worksheet has a space for students to reflect on why they made that connection.

This activity was inspired by two recent museum initiatives. One of the concepts that inspired Curate a Playlist is museums asking viewers to “tag” their art. Many museums, such as The Metropolitan Museum of Art, the Guggenheim Museum, and the Cleveland Museum of Art, are asking visitors to help them “tag” art and generate new classifications for their search online functions (Smith, 2006, p. 1/2). When tagging artwork, “viewers rely first on their own emotions, memories, associations, and values in assessing works. They use “gut reactions” and often give artworks personal and idiosyncratic interpretations” (Smith, 2006, p.8). Museums use these tags to add to the search functions on their websites when website users search the online collection. Overall, responses from institutions trying visitor-created artwork tags have been new words. The responses help make the search function more visitor-friendly while in turn sharing authority with visitors and empowering them to look closer at and connect with the art during their visit for a specific purpose. Like word associations, songs are a personal connection that many visitors can utilize to help connect with the art. The UAMA can also choose to use the suggested playlists as additional resources.

The other concept that inspired Curate a Playlist are museums using Spotify as a visitor engagement tool through institutionally-curated playlists. Museums, such as the High Museum, the Cleveland Museum of Art, and Crystal Bridges Museum of Art, have begun providing playlists inspired by exhibits or the entire collection on their websites and through Spotify profiles (Cuseum, 2015).

Connecting music to another subject has been used in other educational settings. For example, McNealy (2013) writes in an article about a microbiology class asking students to suggest songs to connect to that week's lecture. The article notes that it both increased engagement and student retention of the information.

Community-Created Self-Guided Tours

The fourth resource offered as a choice in this study were Community-Created Self-Guided tours. These tours are always provided to all visitors at the Connect/Create station. The concept behind the tours is that they are created by museum community members – students, docents, curators, educators – and the creator of the tour is listed on the handout. Asking the museum community to contribute to educational content offers them creative agency within a space that typically did not allow for alternate voices (Simon, 2010). In addition, showcasing a variety of voices within a space of “meaning-making,” where it has been acknowledged that there is not one correct answer, a visitor “may feel more personally included in the institution when they see ‘people like them’ represented” (Simon, 2010, p. 227). The tours are also inspired by the use of peer-to-peer teaching in TAB by allowing different voices to share authority with the information being given.

Each tour connects three or four works of art in the museum. The community member who writes the tour provides a short description of each work of art. For example, some tours explain why the work was chosen or how it

connects to another piece of art on the tour. The tours include a short biography of the author to explain who they are in relation to the UAMA.

Qualitative Research

The following sections define the specific methods of qualitative research used in this study. Creswell (2013) defines qualitative research:

qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems... To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inclusive and deductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change. (p. 44)

Essential to qualitative research is the role of the researcher who examines documents and data and collects data through interviews (Creswell, 2013). The researcher utilizes more than one type of data, typically collected through "interviews, documents, and observations" (Creswell, 2013, p.45).

Qualitative research methods best fit this study as it is investigating the opinions and skill development of undergraduate students along with the needs of university faculty. The conclusions of the analysis come directly from the participants' prior knowledge and experiences during that study, which are

collected through the various data (Creswell, 2013). Qualitative research looks at "variables that cannot be easily measured," which, as discussed with the difficulties of pinpointing museum learning and museum literacy, fit well with the needs of this research. Learning, meaning-making, and personal connection are subjective and there can be no generalizable conclusion to what the UAMA can do to best serve students. The purpose of this study is to analyze and understand what is working, where there is room for growth, and places of further inquiry. These are the main goals of this qualitative research.

Case Study and Qualitative Interview

Case study research, a qualitative methodology, is when “a real-life contemporary bounded system (a case) or multiple bounded systems (cases)” is explored, “through detailed, in-depth data collection involving multiple sources of information” (Creswell, 2013, p.97). A case study is used to better understand phenomena (Yin, 2014). In this study, the phenomena is the development of museum literacy and museum learning

Unlike a survey which gives a limited view of the concept, a case study often uses physical artifacts and participants’ viewpoints through interview to create a rich set of data (Yin, 2014). This research study utilizes qualitative interview for data collection. Qualitative interviews within a case study “are usually open-ended to allow respondents to elaborate” (Rosaline, 2008, p.115). The interview is a “guided conversation rather than structured queries” (Yin, 2014, p. 110)

For these stated reasons a case study best suits this research as it is looking not just at participant's viewpoints and experiences but also the physical artifacts they create through the resources used in the galleries. These elements, along with researcher observation, allows for a more valid analysis and suggestions for future research.

Research Participants

Two professors and seven undergraduate students participated in this study. Pseudonyms were used for all student participants, and 'Professor 1' and 'Professor 2' are used to refer to the professors who participated in the study.

Professor 1 teaches in the Honors College at the University of Arizona. The course taught by this professor that took part in this study was split into two sections. Both sections visited the UAMA two times during the semester with their class; the Connect/Create resources were used during their first visit to the museum. The focus of the class was to look at the humanities in a contemporary context. Professor 1 takes many of his classes to the UAMA and other campus resources, and he was suggested to me to be a part of this study by the educators at UAMA. Five of the student participants from the study came from these two class sections.

The second class that participated was taught by a professor in the Division of Arts and Visual Culture Education in School of Art. Professor 2 became a part of the study after expressing interests in using the resources during her upcoming class visit. Though the class was part of the School of Art, it was open to all disciplines and most students in the class were not art majors. The

focus of the class was community and culture in art education. Two students from this class participated in interviews – one in a post-visit interview directly after the museum visit and the second student a few days after the visit.

UAMA: Research Site

The University of Arizona Museum of Art (UAMA) is an academic art museum on the University of Arizona Campus. Founded in 1924, the museum moved to its current location in the late 1950's after a large donation from the Kress Foundation (UAMA, 2017). It is an accredited museum with the American Association of Museums (UAMA, 2017).

The UAMA states its mission as:

The University of Arizona Museum of Art

Engages diverse audiences

Inspires critical dialogue

Champions art as essential to our lives (UAMA, 2017).

Goals to achieve their mission that align with this study include: “Storytelling by diverse audiences at the University and in the community,” “Progressive art education programming for the public of all ages through collaborative research projects,” and, “Excellence in visual arts research, teaching, interpretation, exhibition, and programming” (UAMA, 2017).

The Connect/Create station was generously funded by the museum as part of their mission statement goals. During my graduate assistantship, I created a proposal and presented it to the UAMA staff during a staff meeting.

Structure of Data Collection

The data in this study was collected through three methods: qualitative interview, physical artifacts, and researcher observations.

Each professor was interviewed twice, once before the class visit and once after. The questions for the professors focused on their goals for the visit, their prior experiences bringing classes to the UAMA, and suggestions and comments about the resources after the visit. All interviews were recorded.

Student interviews occurred after the class visit to the museum. I introduced myself to each of the three classes that visited the museum prior to their class visit during one of their class sessions. At the museum, I explained the resources being used and the option of participating in the study. Students were informed that participation in the study was voluntary and would not impact their class grade. Any students interested in participating in the post-visit interview identified themselves after the class visit and either stayed in the museum or scheduled a time or method of delivering the answers to my interview questions. In-person interviews were recorded and the resources completed by the students participating in the study were photographed. The photographs of the resources were used as physical artifacts for data. In addition to the data detailed above, researcher notes were taken during the class visits and throughout the study.

Data Analysis and Presentation

Data collected through qualitative interviews was coded initially through structural coding. “To codify is to arrange things in a systematic order, to make something part of a system or classification, to categorize,” this process, “permits

data to be divided, grouped, reorganized and linked in order to consolidate meaning and develop explanation” (Saldaña, 2013, p.9). Structural coding, the primary step taken in this study, splits the data into sections based on research questions. After this step, the data was coded using both values coding and process coding (Saldaña, 2013). Values coding was used to understand the participant’s perceptions of the UAMA, class visits to the museum, and museums in general. Each code associates a value to the statement, either ‘A’ for attitude, ‘B’ for Belief, and ‘V’ for Value (Saldaña, 2013, p.132). Process coding, or identifying actions linked to the interview data, helps process what the student participants did in the museum during their visit (Saldaña, 2013). In process coding, a verb is coded with the interview information, such as “observing details” or “making a personal connection”.

The data is presented in the following chapter. It is divided into two sections by professors and students. The final chapter provides suggestions for further inquiry as well as a resource developed for undergraduate class visits to the UAMA informed by the data from this study.

Strengths and Limitations

The strengths of this study are the multiple perspectives presented by both professors and students of the university. In order to be a resource for understanding how the UAMA can best serve the campus population, it is important to continually visit the opinions and perceptions the campus community has of the museum. The study presents two variations of ways that these resources can be used.

The limitations are the small number of museum visits. Ideally to gain a better understanding of how these resources can best serve the campus, especially in an interdisciplinary context outside of the school of art, the study could have included more departments of study. This study, therefore, is a starting point for analyzing areas of growth for Connect/Create.

Summary

Prior to this beginning this study, as a graduate assistant at the University of Arizona Museum of Art, I developed a series of resources that became Connect/Create, a choice-based resource table in the UAMA lobby. Four of these resources were analyzed in a qualitative research study using a case study design. This research allowed me to gain a greater understanding of the opinions and perceptions of the UAMA from both professors and students. Additional data of researcher notes and physical artifacts supplemented these understandings to inform a resource developed for undergraduate class visits to the UAMA.

CHAPTER FOUR: DATA AND ANALYSIS

The following chapter outlines the data findings and analysis in two sections. The first section provides an overview of the two professor's goals, prior experiences with the University of Arizona Museum of Art (UAMA), communication and curriculum adaptations made for their classes, and their final feedback from the museum visit and resources. The second section focuses on the student participants: their prior experiences with museums, how they participated in the gallery during their museum visit, and their view of the UAMA and suggestions for how it can best serve the University of Arizona campus. A summary of the findings is provided at the end of the chapter.

Professors

Two professors participated in this study. I will refer to them using the pseudonyms "Professor 1" and "Professor 2." I contacted the professors at the start of the semester explaining the purpose of my research study. Both professors had already scheduled visits to the UAMA for the beginning of the semester. Professor 1 teaches as part of the Honors College at the University of Arizona. I contacted Professor 1 through the suggestion of the UAMA education curators as this professor visited the UAMA every semester and would have insight into how a museum visit impacts an undergraduate class. Professor 2 teaches in the School of Art, and I contacted her by e-mail with information about how she could participate in my study after having a conversation where she expressed interest in using the resources I developed with her class. Prior to their class visiting the museum, I met with the professors individually to conduct a short, pre-visit

interview. After the visit, I conducted a short, follow-up interview to collect feedback about the visit and how the resources did or did not benefit their class. Professor 1 chose to submit their answers by e-mail for the post-visit interview due to schedule conflicts. The following sections explore the findings from the pre- and post-visit interviews.

Prior Experiences

Professor 1

Professor 1 expressed the main purpose of bringing classes to the UAMA was to “expose them to a campus resource,” “prompt them to write,” and develop concepts for a future writing assignment. During past visits, he observed that “while [students] are good at reading visual information, somehow [reading] painting[s]...remains a kind of esoteric thing.” This professor sees visual literacy as a skill that goes beyond visual culture; it is also essential for students to be able to see the museum as a resource and understanding how to interpret a painting. While Professor 1 acknowledges that the ability to interpret paintings in an art museum is a skill that needs to be modeled and is not known by everyone, he focuses on helping his students develop visual literacy through these visits. In this aspect, his self-guided visits – a visit without the aid of a museum educator or docent – share similar goals to Housen and Yenawine’s (2015) Visual Thinking Strategies. The museum is not being used solely as a resource to supplement a lesson; Professor 1 uses the UAMA to model the value of and foster museum and visual literacy skills with his students while also achieving the goals of the writing

assignment. He has also asked for docents and educators to speak with his classes, but typically facilitated self-guided visits.

The structure Professor 1 has used for many of his classes is first “giving them exercises, introducing them, contextualizing how [they’re] going to use the material” and then letting them explore the galleries. After visiting as a class and assigning their project, the students are expected to return to the UAMA on their own. They then meet for a second time as a class at the museum, which is the third visit for students to take “a second look collectively” and start “to generate the stuff that’s going to become their essays.” A benefit of looking at art that he discussed for this class visit process is that students develop a greater understanding of the complexity of both art and writing; just as every piece of art is different and would need to be approached in a unique way, so does every piece of writing.

Professor 2

Professor 2 had a less formulaic method of approaching a museum visit. She explained that because of the differences in the classes she teaches, she approaches the museum visit in on a case-by-case basis depending on the needs of her class. For example, the museum is a valuable resource for students in the visual culture general education course to foster denotation and connotation skills in a real-world setting. Professor 2 has also used the UAMA for classes focused on teaching and community education to understand the different opportunities and methods of teaching in a museum. In addition, she has used art as a mode of facilitating conversations about topics such as post-colonial issues. During some

visits, museum educators from the UAMA have spoken to her class about specific exhibits or topics from the perspective of a museum educator.

Professor 2 noted that many students, “said they had not been to the museum before, to the UAMA,” and that many students returned by choice to complete extra credit work later in the semester. She also reflected on how students are able to see the connection between a community educator and a museum educator more easily by visiting the UAMA. Often her students begin a museum trip without enthusiasm because they have a stereotypical view of what they will see, and are surprised to be interested in the work that they view during the visit.

Connections

Both professors discuss the value of the museum beyond supplementing their class curriculum. Each includes an opportunity for students to return to the galleries; for Professor 1’s class this is mandatory and for Professor 2 it is for extra credit. In addition, part of the success of a museum visit may result from the professor’s beliefs and attitudes about the UAMA and museums in general.

Goals and Communication

Professor 1

After meeting for our pre-visit interview, Professor 1 and I discussed over e-mail what resources he would use for his upcoming museum visits. Initially, he was interested in using the Curate a Playlist resource, the Trust Your Instincts resource, and the Collaborative Sketchbooks. After a few days, he communicated that for this visit the Trust Your Instincts resource was the best fit and he would

have all of his students complete that resource. He asked me to introduce myself to his two class sections before their visits as well as meet them at the museum exhibit they would be viewing to explain the resource again. Professor 1 did express that the Curate a Playlist worksheet might be something he would use in the future with classes. While he did ask for me to both introduce myself before the class visit and meet his classes at the museum, his enthusiasm for the resources as beneficial additions to his class visits show that these are resources he would consider using on his own without having an educator explain them to his class.

The goal for this visit was to focus on juxtaposition, a main theme of the course. Professor 1 chose the exhibit *Modernist Intersections: The Tia Collection* because it was curated to juxtapose two paintings that had a similarity, or intersection, between them. Students would be looking at these juxtapositions as well as connections they could make between the art and their readings assigned for that class. He emphasized that the first of the series of visits planned to the UAMA had to “establish critical insight...value and has to be engaging, so it’s got a lot. It’s got a lot that has to happen, but that’s like any first day.” His attitude for the visit, though there are many big goals to accomplish, are stressed to not be caused by visiting the museum, but rather the pressures of beginning a new course. He values that the museum space has the potential to be engaging and establish the critical insight needed for his first assignment.

I also met both groups at the museum in addition to visiting their classes for a few minutes prior to their museum visit. I explained the museum

expectations, such as using pencils in the galleries and leaving backpacks and food in the lobby, before they proceeded to the *Modernist Intersections* exhibit on the second floor. After explaining the Trust Your Instincts resource to students, I waited until the end of the twenty-minute activity and reminded students that I would return at the end of their class period if they were interested in participating in the research study.

Professor 2

Professor 2 was taking her class to the museum to view the exhibit *Art in Service: Military Families Create* to hear from a museum educator and a student involved in the planning and facilitation of the programming associated with the exhibit. She wanted her students to hear about a real-world example of a community being contacted and engaged with a project. The second half of the visit was planned to be self-guided by the students so they could independently view the *Military Families* exhibit, and explore other galleries in the museum if time allowed. Professor 2 created a handout for students to complete specific to the information given by the educator and student involved with the *Military Families* program.

Through e-mail conversations, Professor 2 decided to use the Collaborative Sketchbooks, Trust Your Instincts, and Curate a Playlist resources. She asked that the Trust Your Instincts resource have “an element...that asks [students] if they can make connections between their observations, and the cultures/subcultures/cultural codes/cultural knowledges they think these observations and personal connections indicate.” The purpose of this was to

connect to in-class discussions “of the connections between identity formation (of individuals into communities) and their experience and consumption of visual culture, including art.” She requested that the Playlist resource have an additional prompt to explain the “connection between the visual and the chosen music.” Finally, a specific prompt was added to the Collaborative Sketchbook choice asking students to respond to what they heard from the educator and the student involved with the *Military Families* program.

She mentioned that she was not familiar with Spotify and that the Curate a Playlist resource encouraged her to look at an app that most undergraduate students use daily. It was not an activity that she would have thought of herself and “was quite excited by that.” The sketchbook was chosen because of its familiarity and fit within the pedagogical strategies of the course. Both the sketchbook and Trust Your Instincts resource inspire artistic behavior in the galleries and is “encouraging and [tells] people that it’s fine and good to sketch”.

I also visited Professor 2’s class before their museum visit. During this visit, another student accompanied me and we also told students about a program happening separately as part of the National Art Education Association Student Chapter. At the museum, I introduced the three choices to students and then returned at the end of their class period to interview any students interested in participating in the research study.

Connections

Both professors asked me to speak to their classes before their museum visit and explain the materials for their classes while at the museum. This choice

shows that the professors may not have had enough information about how to use the resources. It may also indicate that approaching professors individually to use the resources makes them more open to a semi-guided visit.

These resources introduced a new idea for both professors. Each professor commented that the Curate a Playlist resource was not something they would have considered on their own. This shows that the museum has an opportunity to provide information to professors about different resources and digital applications that undergraduates are already familiar with as options of gallery engagement activities.

Feedback from Museum Visits

Professor 1

Professor 1 expressed that “it was nice to have an initial exercise which stood alone, which I then connected to course concerns.” He added: “I’m usually feeling I have to get the connection right away since time is always short but I lament not having students roam and get a feel for the whole beforehand.” He appreciated talking to me before his visit and having access to information about the exhibit that he might not have otherwise requested. Because the Trust Your Instincts resource has a comparative element, he reflected that it helped supplement his class objectives and goals. In addition, he felt that students saw how their opinions could be valued outside of the “course concerns,” which “lent a good air to everything.”

Professor 2

Professor 2 noted that she and her students liked “the variety of engagements”; students identified how they wanted to participate in the galleries. In this class visit, students did not report back what they did, but were able to “internalize” and have their responses come out during classes after the visit. Professor 2 believed this best suited the undergraduate age group versus k-12 students who might need to be held more accountable during field trips or adults who would prefer to un-pack their experiences as a group at the end of a visit. In addition, she viewed the visual quality of each resource spoke for itself in showing the student’s engagement in the galleries. She noted it was useful in the context of considering community engagement for students to experience different modes of participation in museum spaces beyond what they heard from the educator and student speaker. It also allowed for an alternative component to the visit that, though was prompted in some resources to be directly connected to what the students heard from the speakers, it was open-ended enough that if a student was not interested in the community engagement aspect of the visit, they might still gain from the experience of participating with a participatory in the galleries.

In terms of the resources, Professor 2 appreciated that they were flexible and could be edited to serve the needs of the class, which was done for this visit as noted in the previous section.

Connections

The post-visit comments show the value of providing opportunities for students to make personal connections in the gallery. In addition, the resources were flexible enough to benefit two very different courses and museum visits. The comments indicate that these resources are a good fit for undergraduate audiences and positively impacted the outcome of the museum visit.

Students

The following section provides an overview of the responses collected through short, post-visit interviews with seven undergraduate students. Five students in total participated from the two sections of Professor 1's course. The other two students were enrolled in Professor 2's course. In addition to the interview data, images of the student's responses to the resources were also collected and analyzed. Pseudonyms are used for all student participants.

Prior experiences

Ann

Ann had been to museums prior to this visit but never to the UAMA. She remembered the Phoenix Children's Museum as an example of a museum she enjoyed because it was interactive. In addition, she commented on how the art activities allowed visitors to make something to take home and she enjoyed seeing what other visitors created. She also liked the art museum in Palm Springs, California.

Laura

Laura has visited the UAMA building, but never looked at the art. She has visited museums on her own, specifically history museums because she enjoys history. Laura remembered visiting a museum in New York City with an exhibit about Egypt.

Eric

Eric has visited “many” museums outside of school, but has never visited the UAMA. When asked what types of museums he enjoys, he explained “usually natural history museums, but I recently went to the art museum in D.C. and that was phenomenal.” Eric described being able to see how art has changed across different time periods to be most memorable.

Sarah

Sarah first explained that she had not been to museums outside of school, but then realized that now she takes children she babysits to the Tucson Children’s Museum. She remembered going there with her school when she was younger. She has also been to the UAMA with reading and writing-based classes. She explains the visits to the UAMA:

...were eye-opening because I’ve never thought of myself as an art person...it’s always been difficult to put my feelings towards shapes and stuff, so it’s definitely taught me a lot that I probably wouldn’t have learned otherwise.

Julie

Julie began explaining that she had not visited a museum outside of school in a long time. As she began to think about experiences she had when she was

younger at children's museums, she realized that she had been to an art gallery space the previous year in San Diego. She described it as "modern" and not as "sophisticated" as the UAMA; as a place that you "wouldn't go on educational terms." She then remembered visiting interactive museums more recently, including one in St. Louis that she recalled including history and culture exhibits. Julie also reflected on visiting wax museums, ending her train of thought with "I actually have been to a lot of museums."

She has visited the UAMA previously one time with the same professor but in a different course. Julie identified herself as a law student, separating her field of study as very different from visiting a museum. When she visits a museum, it makes her "realize there are different sides to [herself]" versus the "logical black and white" she described using in her studies.

Samantha

Samantha has visited both the UAMA and museums outside of school. She explained she prefers art museums because she makes art and is interested in learning about art. In addition, Samantha described visiting a music museum in Seattle and history museums. She has visited the UAMA on her own and for other classes. Her mother and sister came to visit with her when the UAMA had an exhibit on Andy Warhol.

Dan

Dan explained that the only museum he had visited outside of school at the University of Arizona was the Vatican. That visit "was more for sightseeing than visiting a museum for educational purposes." He talked about how he

preferred seeing photography or baroque style artwork because it related to his own art practice. He has only been to the UAMA for school work.

Connections

Of the seven students interviewed, three students had never visited the UAMA to view art. Julie and Sarah both had difficulty pinpointing their personal museum experiences, and the majority of students were not able to recall specifically what interested them about museums or when they had last been to a museum. Only Samantha, who self-identified as an artist, visited the UAMA outside of class requirements. Ann, Sarah, and Julie spoke specifically about interactive museum exhibits and children's museums as memorable visits. Most students spoke about the importance of personal connection in increasing to their engagement in a museum.

Participation in the Gallery

The first five students described were students in one of the sections of Professor 1's course and completed the Trust Your Instincts Resource.

Ann

The first image Ann chose to spend time with had one detail that caught her eye. She said, "the little house next to the green tree" was her "favorite part of the entire picture and of the entire room." The second image she chose "was called *The Black Boys*." She explained "that reminded me of my older brothers and, so, I connected the house with my brothers and it made me remember my family."

Her writing through the Trust Your Instincts resource reveals more details about how Ann connected and participated in the museum. Ann wrote about the home reminding her “of [her] homes in Chicago.” She describes in her writing that the house is yellow and “the color of the roof is repeated on the picture; my houses always stood out”. The second side of her sheet took on a narrative format versus the first side which she wrote in bullet points. She reflects “I miss my brothers...my siblings are why I am here.” She reflects within this statement about how growing up with many children and her mom who raised them on her own allowed them to grow close. Her description details how the way the boys are dressed reminds her of how her family always went to church. At the bottom of the page she connects the two paintings: “big houses made small by the many children” (figure 1).

Ann’s resource goes much more into depth about her personal connection than she chose to share during the interview. Her personal connections allowed her to create an understanding of the feeling and possible intention of the artists. She notes significant details and artistic choices through her connection, such as the repeating yellow color, the scale of the house, and the clothes the boys are wearing. Independently choosing which artworks to compare allowed Ann to seek connections about meaningful people and places from her personal experience.

Laura

When asked to describe how she participated in the galleries, the first thing Laura stated during her interview was that her writing was “kind of a mess.” She described the artworks she chose together; both images were monochromatic

and “seemed to me like reactions to oppression in some way.” She continued by explaining she connected a painting to a book called *Legend* by Marie Lu:

...her one book is like dancing around each other where it always seems like it's doomed to repeat itself over and over again, and it's like how the hearts were, just were repeating over and over

The writing on her Trust Your Instincts resource shows she recorded the artists' names and the titles of the artworks. She writes down questions about what she wonders such as “how do you handmake [*sic*] paper,” comments about thoughts she has such as “I can see how a pattern can make you crazy,” and draws shapes from the artworks and small images in her notes. Much of her writing is done in list form. It seems to build on itself, much like a Visual Thinking Strategies based conversation, where she first is noting what she sees – “burnt mountains,” “texture,” “hearts” - and then expands on possible meanings about the pieces – “trying to break free but still stuck in cycle.”

Laura made both connections based on the artist's aesthetic choices and to themes and ideas she was familiar with and had read in a book. Prompting Laura to think about an outside source and connect it with the artwork allowed her to grasp a possible and complex meaning of one painting.

The resource lead Laura in a similar guided thought process as a typical docent-led group discussion. Although she referred to her work “as a mess,” the looseness of her work shows that she was not worried about handing this in to present as a complete work, it is solely process-based and important that she understands her thoughts and ideas.

Step 2

Choose another of the artworks that stood out to you during your first walk through and spend 10 minutes with that piece. Use the space below to reflect on the piece however feels most meaningful to you. You can also make connections between the first piece of art you looked at and this one.

"The black boys"

I miss my brothers. Growing up w/ the other children plus whoever my mom took in & the fact that she is a single mom, you grow close. My siblings are why I am here. The painting reminds me of my 2 older brothers, they look like they're on their way to church. We always went to church.

-CONNECTION-

"Big houses made small by the many children"

Figure 1: Ann's Responses, Side 2

Eric

Eric described his experience during the class visit as “very interesting”. He chose to write a “stream of consciousness that [he] was thinking as [he] was looking at [the artworks]”. He found a personal connection with the photograph he chose to spend time with because it showed destruction on the Chiricahua Mountains which is where he grew up. Though he thought spending ten minutes with each piece of art would be difficult, he found he needed more time to fully process his thoughts and did not finish step two of the resource. Eric compared the second artwork to imagery he had seen before, possibly associated with the Pope.

On the resource, Eric recorded the artists’ names and artwork titles. He notes aesthetic attributes of the work more than he did during the interview: “the contrast of the marble, the plants finding footholds on the raw stone” in the photograph and the “blackened, un-polished” bronze of the sculpture. He interprets the photograph as being associated with how the earth is used for “personal gain.” Looking at the second artwork, Eric wishes he could “translate the title.” He looks for symbolism in this piece compared to the photograph, noting that “the cross is power, and this piece also speaks to me of dominion [*sic*], though over man, not nature”.

Eric’s experience with the resource changed his expectation of what he was capable of in the museum and how much time he could spend with a piece of art. He makes both personal and symbolic connections to analyze the artworks he chose. The connections between the two pieces are conceptual rather than visual,

showing an openness in visual literacy to see threads between works of art that do not share visual similarities.

Sarah

When asked how she used the resource, Sarah responded that she wrote “what she observed down first.” She spoke of a specific piece that had texture made from cereal boxes where “you could still see the titles through the paint [which she] thought was really amazing they would put that with such a powerful work of art.”

Sarah’s resource was written in list form. She records words that are clear observations such as “texture,” “shoes/no shoes,” and “rain w/sunshine” as well as words that interpret the meaning of the artwork such as “the lives of others,” “exposed,” and “loneliness.” Overall, it appears that Sarah experimented with different approaches to responding to the artworks. Both her interview response and what she wrote on the resource reveal that she spent time examining the artist’s technique and what materials were used as well as what different imagery might help find meaning in the art.

Julie

Julie first responded by explaining that she did not draw on the resource during her time in the gallery. She noted that she asked a question about the artist’s process for one of the pieces. As she responded to the pieces, Julie wrote down what she saw and then “elaborated on the metaphorical sense as well...you know what it made [her] think further rather than just like what [she] was seeing.”

At the top of her resource she created a list of possible works to return to by writing the artist's names. She rewrote the artist's name and included the title of the work for the first piece she chose. Her writing takes the form of one, long train of thought. It connects aesthetic choices such as "the angle which the artist chose" to hypothesizing the intention: "it gives you just enough to fantasize what is beyond and make it your own." Her connections are not immediately personal, but deal with how the piece of art might connect with any viewer. For example: "There is [sic] three main shades of color which can be linked to any metaphor such as the three sides of ourselves.

Julie overall was very aware of how the aesthetic choices the artist made might connect to the meaning of the artwork or the way she personally connects to the art. As in stage three of Housen's (2007) Stages of Aesthetic Development, "the stage III viewer searches the surface of the canvas for clues, using his library of facts, which he is eager to expand" (p. 173).

Samantha

As part of Professor 2's class, Samantha choose between the Collaborative Sketchbooks, Trust Your Instincts resource, and the Curate a Playlist resource. She chose to use the sketchbook and wrote about some of the artwork she found most interesting (Figure 2). One artwork she chose because it had an intriguing personal story described in the label, another she was not sure if it was made by a child or adult and had an "unknown, interesting feel." After spending time in the *Military Families* exhibit, Samantha walked around the rest of the second-floor galleries and "drew little parts of the ones [she] liked best." She commented that

the activity “made you look at the artwork closer in order to draw.” Samantha added that she has never drawn in the museum before. This was noteworthy because she has come with art classes and identifies as an artist.

Samantha’s responses in the sketchbook were very visual. She wrote down some of the artists’ names among the sketches and included a short explanation of why she found the piece in the *Military Exhibit* interesting.

Dan

Due to a schedule conflict where he could not stay at the UAMA for an interview, Dan’s interview took place after the museum visit at a coffee shop on campus. Dan chose to use the Collaborative Sketchbooks to participate in the galleries, and did not take a picture of his entries. The following data only includes information collected during his interview.

He explained that this resource was different from how he normally participates in museums because he goes to solely be a “visual participant,” which he defined as only looking at the art. He enjoyed that it was a “social project in the sense you’re leaving something for the next viewer to look upon and possibly take from that a deeper understanding.” As he expanded more on what it meant to be a “visual participant,” Dan described how he took pictures at the Vatican. The only specific that Dan mentioned viewing at the UAMA was the *Military Exhibit*; he did not talk about specific art pieces.

Dan may have been less detailed in his answers as his interview took place a few days after the class visit. He also did not have his resource to look at as the other students were able to during their interviews. He does not see photography

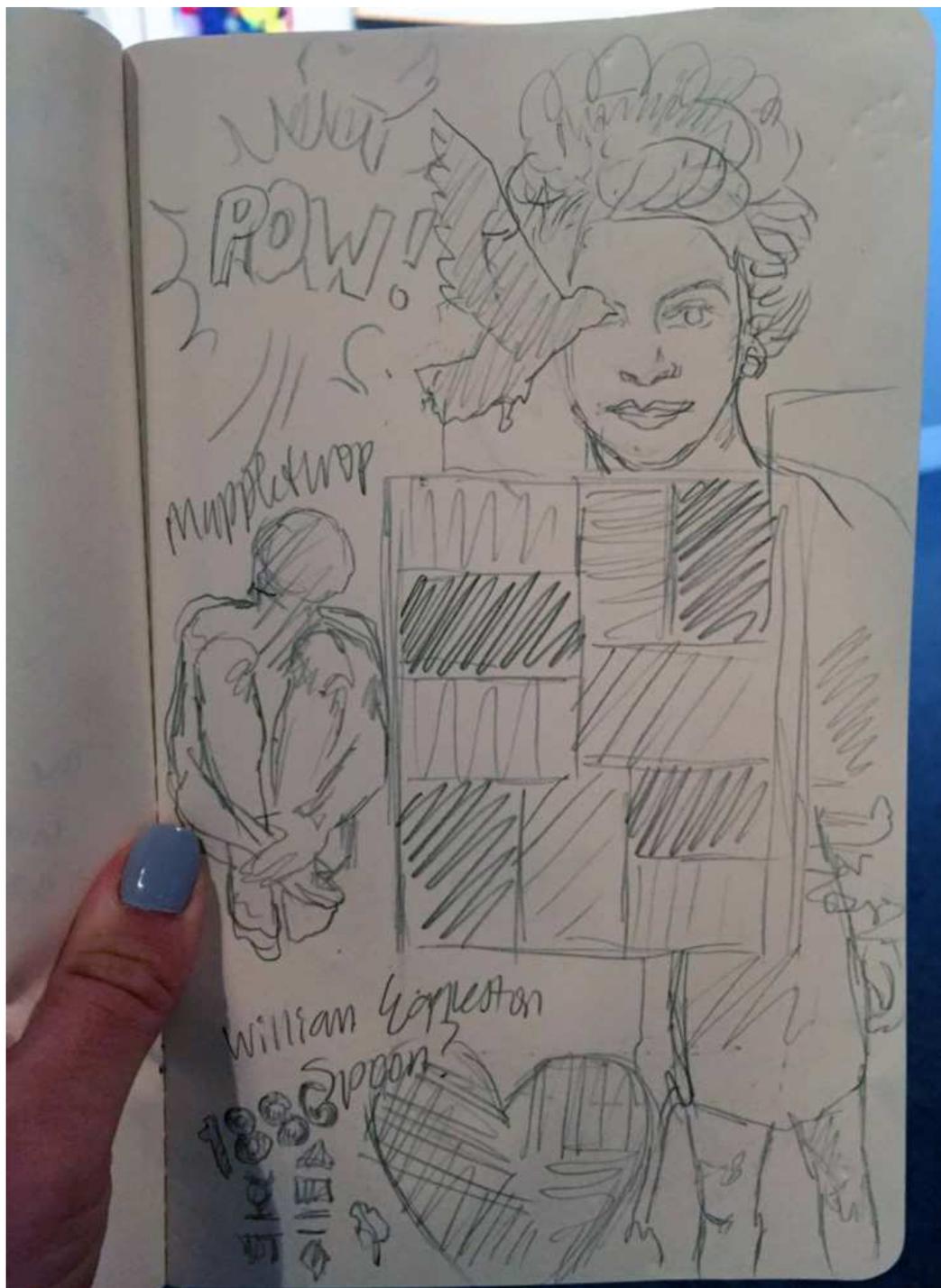


Figure 2: Samantha's Sketchbook Entry, Page 1

as a mode of participation in the galleries.

Connections

Themes of participation identified in this section highlight personal connections, inquiry about the elements of the artworks and the artist process, and sketching. Ann, Laura, and Eric all used their personal histories to initially choose the artwork they wanted to view and develop connections and inquiry about the artwork. Sarah, Julie, and Samantha began their participation with inquiry about the artist's process and aesthetic connections between pieces of art. Many students practiced VTS-like thinking through list making, identifying first what they saw and then expanding to develop possible meanings for the artworks, and channeling prior knowledge to inform their thought process.

View of UAMA and Suggestions

Each student was asked: *How does the UAMA connect with the University of Arizona Campus? What suggestions do you have for how they could best serve the campus community?* The following section is an overview of themes from these comments.

Positive attributes that were valued about the UAMA was that it can be calming and help with personal inspiration and inspiration for assignments, the exhibits are interesting for students, and it has a rich collection with a variety of work and artists. A student noted that visiting artists were interesting and a resource to students. Another student mentioned how her sister was in the engineering department, but had a museum membership, so the UAMA is succeeding in reaching students outside of the School of Art.

Suggestions for the museum focused mainly on signage and advertising. Students commented that the museum was hard to find, and signs along the bike path near the museum would help. Students also suggested advertising more in the student union about the museum and upcoming events. It was suggested that because students in the School of Art are seen to be studying less-traditionally academic topics, the fine arts area “has a different atmosphere,” and that the museum might not connect to their interests. To remedy this, it was suggested by multiple students that more teachers bring their students to visit the museum and show them how it can be a resource. One student explained: “most of the time students are sent to the museums on their own without the instructors....and so when students are going there they’re basically left to wander on their own.”

Summary

This chapter presents the data and main findings collected through interview data and participants’ responses on the Connect/Create resources. Groups of data are summarized to present themes and connections that emerged through the data analysis. The prior experiences of the professors, as well as their goals for their visit and feedback about the resources were presented in the first section. The second section highlighted student’s prior museum experiences, their participation in the galleries, and their overall perception of how the UAMA is successful and unsuccessful in serving the campus community.

Ch. 5: Discussion and Conclusion

This chapter provides an overview and concluding thoughts about the findings and analysis of the data. In the first section, I use the data collected from interviews with professors to discuss how the Connect/Create resources were beneficial for their class visits, helped meet their class goals, and could be improved for their museum literacy. The second section provides an overview of the findings related to the main research question of this study: *How does Connect/Create foster museum literacy for self-guided, undergraduate class visits to the University of Arizona Museum of Art?* To begin to answer this question, I connect the data collected from students in interviews and in their responses on the Connect/Create resources to research about how visitors learn in museums and choice-based learning approaches. In the third section, a discussion of student's views of museums and the University of Arizona Museum of Art (UAMA) frames suggestions for how the UAMA can best serve the campus community.

From these findings, a document was developed for the UAMA to provide for professors who register to visit the museum. This resource is described in the fourth section of the chapter. A final section provides considerations for further research of Connect/Create and museum literacy.

Professors: Benefits, Goals and Improvement of Connect/Create Resources

Both professors in this study were using the museum for two purposes: to expose their students to the UAMA as an available resource and as an approach to supplement their curriculum with real-world experiences that is directly connected to the topics of the classes. Each class visit also included both a guided

and self-guided portion. The guided portion for Professor 1 was facilitated by himself and utilized group discussions to connect his curriculum and project. Professor 2 invited a museum educator and a student who was involved with the Military Families project to discuss the process and meaning of the Military Families program to her students before they explored the exhibit. These different structures caused the professors to utilize the Connect/Create resources in different ways; while Professor 1 thought that it would be most beneficial for students to use the resources to explore the galleries before having group conversations, Professor 2 preferred using the resources as a compliment to a handout she created to be completed after the educator and the student spoke. In the case of Professor 2, it is possible that, in this situation and for other museum visits where a professor might ask a guest speaker to talk for some of the time, they may have to speak at the beginning of the museum visit due to the speaker's schedule. Although the intention of the Connect/Create center in the UAMA lobby was to provide all visitors with a choice of participatory resources at the start of their museum visit, in the case of the resources developed for class visits, the resources should be able to be used at any time during the class visit. It was beneficial for the visits in this study that the overall flexibility of these resources allowed them to be used at any point during the museum visit.

Another benefit that the resources provided was open-ended prompts that invited students to channel their prior knowledge or personal interests, an essential component to learning as explained by Falk and Dierking (2000), Housen (2007), Housen and Yenawine (2015), Hein (1995), and Simon (2010).

Though both professors had included time during their museum visit for students to walk around and respond to the artwork on their own, the resources provided a structure for this free-choice learning in the galleries. This choice-based time prompted students to use their prior knowledge in a way that also fostered museum literacy skills: each resource provided an example to students about how they might approach viewing and interpreting works of art. As discussed in chapter two, one of the reasons academic museums are a valuable resource to the campus community is due to the increasing importance of visual literacy skills in all academic subjects. For students to be able to use their visual literacy skills beyond a guided museum visit, they must also develop museum literacy skills to “[draw] upon the museum’s holdings and services purposefully and independently” (Stapp, 1984, para. 3).

Professor 1 reflected how he often regrets not allowing students to look at the art on their own first, and the resources provided a prompt and structure for this. He valued that students could see how their opinions were important outside of the “course concerns,” which “lent a good air to everything”. This comment from his post-visit interview emphasizes how a class visit to the museum has two purposes: to enhance the class curriculum and to expose students to the museum as a resource. Allowing students to have time to use their prior knowledge not only allowed them to learn and connect more easily, as Falk and Dierking (2000) note, but also helped them engage more with the course content presented during the visit.

Because the resources easily incorporate a structured, choice-based activity into any museum visit, they also served as a way of fostering the professor's own museum literacy. Both professors were interested in how they could help their students connect to the museum and view it as a valuable resource; the *Connect/Create* resources were beneficial in helping the class visits in this study achieve this goal. The resources provided a means to model museum literacy skills and help nurture learning in the sociocultural context (Falk and Dierking, 2000). The resources further shaped student learning through the sociocultural context because they were provided in the context of a class, and completed in a group setting. An area for future inquiry about the resources effectiveness would be to study them in context of self-guided visits to the museum where students are assigned to visit the museum outside of class on their own.

Beyond modeling approaches for their students to develop museum literacy skills, each professor commented on how the *Curate a Playlist* resource is not something they would have implemented on their own because they thought it was a unique idea and they were not familiar with the music application Spotify. They thought the playlist resource would be beneficial to their students, and were enthusiastic about the possibility of using the resource in future classes and museum visits. Due to these findings, future inquiry could investigate how the resources best serve the campus community beyond the museum galleries. When used outside of the museum, though museum literacy skills are not directly being developed, the resources can provide tools to foster students' critical and visual

literacy skills, which are essential for museum literacy development during future museum visits.

Flexibility also increased the benefits of the Connect/Create resources. Professor 2 added specific prompts that helped achieve the goals of her class visit, and Professor 1 only chose to use one resource to help meet his visit objectives. The resources can work together to provide choice for students or can be used individually as isolated, choice-based activities. A suggestion for future uses of these resources is to develop separate versions of the resources that link to specific exhibits. For example, if a tour was coming to view a temporary exhibit, there may be a specific version of the Curate a Playlist with a starting description and prompts that link to the themes of that exhibit. These small changes may help make the resources more accessible for professors who do not want to edit them on their own.

Neither professor used the Community-Created Self-Guided Tours. Due to this choice, I reflected on how it was the only resource that did not provide the opportunity for students to directly participate in the gallery spaces through writing or drawing. Although the tours do provide a different lens for looking at the art, and, as Simon (2010) explains, the positive impact of seeing a similar voice to oneself reflected in museum resources and pull-content, they do not necessarily foster self-directed museum literacy skills. The tours may help some visitors find direction in navigating the galleries, but they do not provide flexibility to be edited to specifically compliment and help professors achieve the goals of their visit. If a professor wanted students to experience a similar

participatory approach to the Community-Created Self-Guided tours, it may make more sense for them to schedule a docent or educator-lead tour. For these reasons, the tours were removed from the final suggested resources document created from the findings of this study (Figures 3 and 4). From only the small sampling of data collected in the study, it is too early to completely remove Community-Created Self-Guided Tours from possible resources for class visits to the museum. Future research might investigate what resources like the tours, that do not require responses from students, can benefit university class visits. The tours continue to be provided as a resource to all visitors at the Connect/Create station in the museum lobby.

Fostering Museum Literacy

The following section discusses how the Connect/Create resources helped to foster museum literacy skills for the student participants in this study. The data from the participants' interviews and their responses on the resources are further analyzed to compare and define themes and examples of how the resources guided students towards meaningful connections with the artwork in the galleries.

Prior Knowledge

A common theme among responses was utilizing prior knowledge to connect with the artwork. As highlighted in the previous section, prior knowledge is essential to Falk and Dierking's (2000) Contextual Model of Learning. They describe how all learning has three overlapping contexts: the personal, the sociocultural, and the physical. When museum visitors can easily channel their

prior knowledge in connection to their experience, they are able to learn and see value in the museum visit.

As a student in Professor 1's class, Ann completed the Trust Your Instincts resource to identify two pieces of artwork to observe in depth. She first chose a piece of art to analyze based on a small house in one painting that reminded her of her childhood home. From this starting point, she then began to speculate about the intention of the artist and the meaning of the piece based on the colors and repetition of colors in the artwork. As in Housen and Yenawine's (2015) Visual Thinking Strategies (VTS) approach, Ann began with one object and then continued her observations to see what else she could find in the painting, moving beyond her prior knowledge to draw a new meaning from the painting. While she eventually created connections not associated with her prior experiences, when she chose the next piece to respond to, she again started with a personal connection to the artwork. Ann then used the class goal of applying juxtaposition to two artworks to hypothesize larger themes from the works.

Through the guided experience of choosing two artworks and spending ten minutes with each piece, Ann progressed through different stages of Housen's (2007) theory of Aesthetic Development as well as created meaningful comparisons using her prior knowledge between the two pieces. When Ann identified connections with her own experiences, she modeled stage two of Aesthetic Development: she used her "perceptions, [her] knowledge of the natural world, and the values of [her] social and moral world" (Housen, 2007, p. 173) to develop her initial observations. Her broader connection between the artworks

and interpretations of their meaning show elements of stage four thinking: Ann let “the meaning of the work –its symbols—emerge” (House, 2007, p.175).

Laura and Eric, students in Professor 1’s class, also began observing artwork by connecting with prior knowledge. By relating the repeating patterns and textures of the artworks with a book she has read, Laura developed complex interpretations of the artworks. Like Ann, her thought process builds on primary observations; Laura uses lists to first record what she sees and then begins to build upon those ideas to develop more abstract concepts. For example, when she notes imagery such as “burnt mountains” and “hearts” and then adds on her resource “trying to break free but still stuck in a cycle,” Laura demonstrates different stages of Housen’s (2007) Aesthetic Development along with a constructivist museum experience (Hein, 1998). The repeated occurrence of prior knowledge reflected in the resources shows that they help shape a constructivist learning experience. Engaging with the art is not linear, as Longhenry (2007) notes about a constructivist environment, but instead self-directed learning is valued and encouraged. An advantage to using a resource like Trust Your Instincts is that the participant records their thoughts in their own words on paper. Laura, for example, demonstrated the development of a participatory approach to independently follow a similar aesthetic development strategy as VTS without extensive, guided prompting from a docent or educator.

Eric’s experience mirrored Ann’s in many ways as well. He chose his first artwork because it was a photograph of a place close to his hometown. He then built his interpretations of the photograph based on what he saw in the image. Eric

specifically talked about how he underestimated how engaged he would be with the activity; initially he believed it would be difficult to spend so much time with only two pieces of art, but found at the end of the twenty minutes he did not feel his thought process was finished. This connects back to Perry's (2012) idea: some visitors simply need a jumpstart if they are not sure what to do. In Eric's case, he may have chosen a different approach to participate in the gallery on his own, but by being introduced to the resource and the idea of looking closely, he was able to see his newly discovered abilities as a museum visitor. As students develop their museum literacy skills, they will be able to use them independently as lifelong learners, but can also model them in a sociocultural context when visiting the museum with future classes. Eric now has a new perspective of the museum and how he can use it successfully as a resource.

Process and Personal Interest

Students who did not directly draw from prior knowledge or make personal connections used inquiry about the artmaking process of the piece, the meaning of the artwork, and juxtaposition between artworks to analyze the pieces they chose.

Sarah responded to the resource by using lists of words. She explored connections between what she saw in the artwork and notations about the artist's process to find words that could define the meaning or mood of the piece. For example, words such as "texture", "shoes/no shoes" and "exposed" build upon each other, showing that Sarah was looking for symbols and meaning through her observations, an essential step in VTS (Housen & Yenawine, 2015). Julie

followed a similar process to Sarah and used lists of words as part of her responses on the Trust Your Instincts resource. She connecting the meaning she found in the artworks back to herself, thinking about how once you observe an artwork closely you can find elements to interpret your own meaning that helps you understand it better. It is important to note that Julie was the only student participant who had been in Professor 1's class previously. Her approach to using the resource may reflect an enhanced museum literacy influenced by her prior experiences at the UAMA in a similar class visit. Though Julie conveyed a confidence in her participation using the resource, her reflection about the UAMA and art museums shows that she sees the museum as separate from her field of study. For students who may not see the museum as an interdisciplinary resource due to their personal opinions, it may be helpful to have direct prompting that asks students to first create a personal connection as the students described in the previous section did. The connections with prior knowledge allowed for Ann, Laura, and Eric to immediately engage with and find value in the artwork they were viewing, where Sarah and Julie relied primarily on searching for visual observations and personal interests, rather than their prior knowledge, to develop interpretations.

Many students, such as Laura, Eric, and Julie recorded the artist's name and title of the pieces along with their initial personal connections. The resource encourages inquiry and note taking by providing an open-ended, choice-based space for personal reflection and thought processes; the resource visualizes their aesthetic development and turns ideas into an artifact. They sought out

information that they would want to use later by using the labels in the gallery as a resource. This response to the resource directly connects to the self-directed learning skills fostered through the choice-based approaches Studio Thinking and Teaching for Artistic Behavior (TAB). Choice-based approaches encourage students to advocate for themselves and seek out the information they need. In a gallery, the artwork label acts in a similar way to a resource at a TAB center; students can choose to use the information to supplement their learning and personal inquiry.

Dan enjoyed that the Collaborative Sketchbooks are a social project that asked him to leave an entry for future visitors; to him, this was a personally interesting concept that made the resource valued and relevant for him. This added benefit reflects student's values of participatory experiences in museums that were expressed during the research interviews as well as the statement developed in the focus group sessions of the study from the Center for the Future of Museums (CFM, 2010): "There is a rapidly emerging consensus that the most successful museums of the future will be places to hang out, engage and contribute" (p.31). Participatory experiences are essential to engage student's personal interests. While the students in this section did not directly draw from their prior knowledge, they interacted with artwork that was visually interesting to them or made them want to learn more about the piece because they had a question about the process or meaning of the art.

Sketching

Samantha, the student in Professor 2's class who self-identified as an artist, talked about how she had never used a sketchbook in a museum before. Though, like Sarah and Julie, Samantha chose to look at artwork she was curious to learn more about, her main form of participation focused on drawing images of pieces of the art that she liked best. In this situation, the sketchbook provided the opportunity for Samantha to try a new approach to participating in the galleries, which was already familiar approach to her visual literacy skills as an art student. Providing resources that students already have prior knowledge of, such as sketchbooks or playlists, can help create that direct personal connection and immediately draw from prior knowledge when fostering engagement in the museum.

Many students from Professor 1's class sections chose to draw in addition to their writing on the resources. For example, Sarah supplemented her lists with drawings of the textures, patterns, and symbols she observed in the artwork. Like k-12 choice-based approaches, resources like Collaborative Sketchbooks and Trust Your Instincts invite multiple entry points for students to decide how they feel most comfortable to participate. This comfort and confidence is an essential component of museum literacy. Drawing also fosters close looking with a different approach than group discussion or writing; as noted in chapter one, drawing helps visitors see better because they are looking closely at the object and observing more detail.

Student Views and Values of Museums

As noted by Hein (1998) and Falk and Dierking (2000), time plays a large role in constructivism. What a visitor believes and anticipates going into a museum and their prior knowledge, as well as what happens after the museum visit, can have an impact on the overall learning that occurs in the museum. All students interviewed said the resource they used in the museum was a technique they would want to try again in the museum. Their openness about how they participated and excitement about the connections and observations they made reflects a positive museum experience. As explained in chapter one, a positive museum experience is essential for a student to want to return to the museum on their own and for them to see the museum as a valuable resource. In addition, positive reflections from students highlighted how the museum is viewed as a space to find inspiration, a calming place to relieve stress, and a resource to learn information from visiting artists and interesting exhibits.

Students expressed that the UAMA could advertise more effectively to students, both by visiting their classes and making advertisements and signs for the museum near the bike path and in the Student Union. Though advertising may help the museum bring a few more students to the galleries, providing information and resources to faculty may be the most direct way to increase student visitors; more students can have a positive museum visit when they visit as a class, and it is more likely that first-time visitors will view the museum as a resource through modeling of museum literacy skills. For further inquiry about how the UAMA can best serve the campus community, it would be beneficial to study the impact of

advertisements in areas of the campus where students from many disciplines gather, such as the student union or the library.

Overall, this study demonstrates that by providing resources and structure that foster museum literacy to self-guided museum visits, students are highly likely to have a positive visit and increase their confidence as self-directed learners in the galleries.

Final Resource and Discussion

With the information collected from this study, I created a double-sided document that can be e-mailed or distributed to university faculty by e-mail or in person (Figures 3 and 4). This resource explains the three resources found to be effective in the study. In addition, museum literacy is defined. The addition of this definition was a result of reflecting on the importance of professors understanding what museum literacy is and why they should model it to their students. I suggest that all resources be provided on the museum website in .doc and PDF file types so that professors can choose to edit the resources as they see fit to meet their class goals. I also suggest that the museum has a faculty open house where they model these resources for faculty to see the benefits of the resources and the possible connections they can make with the museum to strengthen their class curriculum.

Suggestions for Further Research

To better understand how to best provide resources to professors, I suggest that different approaches to sending the four resources developed for this study to professors are investigated. Questions associated with this idea could also

consider how to provide the information for professors so that they feel comfortable using the resources for class visits. A possible approach to collecting this data could be through post-visit surveys that are e-mailed to professors. The surveys can question if they used the resources, what they did in the museum, and suggestions for improvements.

I also recommend that the museum continue to develop additional resources that are flexible and can be used during class visits to the museum. For example, resources that do not require direct participation, e.g., the Community-Created Self-Guided tours, may be more accessible for some professors and students. Pre- and post- visit activities could also help supplement learning in museums to benefit prior knowledge and student experiences after the museum visit.

As Glesne (2010) reflects, some students thrive in the museum. Further research can help highlight approaches the museum can take to differentiate for all audiences during both self-guided and guided visits. For guided visits, these resources can be further studied to understand their impact when used in conjunction with an approach such as a VTS discussion.

Conclusion

This research study investigated how the University of Arizona Museum of Art (UAMA) can best serve one of its main audiences: the campus community. Museums continue to see decreasing numbers of visitors (CFM, 2010). Previous studies have analyzed how to best engage audiences and make the museum an inviting, accessible space. For example, Visual Thinking Strategies (VTS)

(Housen & Yenawine, 2015) and *The Participatory Museum* (Simon, 2010) address how to help visitors develop skills and learn in the museum as well as feel that their responses are valued. Following this research, this study looks at how a campus museum can provide resources to professors bringing their class to the museum to help the students have a positive experience; the resources both supplement the curriculum and goals of the class while fostering visual and museum literacy skills for the students without a guided conversation, such as one used in VTS. When visitors have a positive experience in a museum, and they can view the museum as a useful, engaging resource, they are likely to return (Falk & Dierking, 2000).

To best serve the campus community, this study collected data on the impact of four choice-based resources created for the Connect/Create center in the UAMA lobby. Using a combination of choice-based approaches to teaching and research about learning in museums, the resources were developed to foster museum and visual literacy skills through open-ended prompts. Choice-based approaches were used to inform the creation of the resources because they emphasize the importance of resources for successful self-directed learning, something that many research studies about learning in museums do not consider.

For a preliminary study to analyze how the resources were effective, areas of improvement, and suggestions for how to best distribute them to professors, I feel this study was successful. The data collected from students reflects development of museum and visual literacy skills. The professors in the study

responded positively to the advantages of having resources available that fit with their class goals.

While the limitations of this study prevent it from applying to all visitors, the positive data collected show a need for future research about how participatory and choice-based resources can help provide engaging museum experiences similar to guided experiences like VTS or participatory activities in Simon's (2010) *The Participatory Museum*. Museums need to continue to respond to 21st century needs to increase visitor attendance, develop positive views of the museums, and remain an essential resource for engaging with visual culture, prior knowledge, and local and global ideas.



Museum Visit Resources: University Classes

The following three resources are designed to be flexible to fit with your class curriculum and help foster museum and visual literacy skills, as well as 21st century thinking skills, during your class visit to the UAMA.

Please visit the UAMA website to access both a Word and PDF download of two of the resources. The Collaborative Sketchbooks can be found in the UAMA lobby at the Connect/Create center.

Questions about these resources, other museum resources, or your upcoming visit?
e-mail artmuseum@email.arizona.edu

1 Curate a Playlist

This resource guides students to connect music with art. By creating a playlist of music, students develop connections between works of art as well as the ability to connect their personal interests with the work in the museum.

This resource can be easily modified to connect to a specific theme and add additional prompts that connect directly to your curriculum and goals for your visit to the museum.

Use the UAMA collection to curate a new playlist of music.

As you approach a work of art that interests you, think about different songs that create a personal connection for you as you look at the piece (use either the entire song or just part of a song). Select up to eight works. You can try this exercise either independently or with a partner or group.

After creating your playlist, go back and take your new musical self-guided tour. Reflect on how curating your own path and connections constructs new meanings for yourself as you look at the art a second time. Optional: Use an app like Spotify so that you can keep, share, and add to the playlist.

Title of Playlist _____

1

Title of artwork
Artist

Title of song
Music Artist

Notes:

Sample of the first page of the resource 

Figure 3: Final Resource, Side 1

2 Trust Your Instincts

This resource guides students to look closely at two works of art and compare and contrast what they see.

This resource can be edited to connect to themes or exhibits that are relevant for your curriculum and goals for your museum visit.

Trust Your Instincts: Step 1

Walk around the galleries quickly, spending a maximum of 3 seconds looking at each work of art. Make mental notes about which pieces catch your eye.

Return to one of the pieces that stood out to you and spend 10 minutes looking at it. As you spend time with the artwork, use the space below to reflect however feels most meaningful to you. For example, write down observations, personal connections, questions you have, draw a response, draw parts of the piece of art, write a poem, etc.

Sample of the first page of the resource ↪

3 Collaborative Sketchbooks



Collaborative Sketchbooks are located in the UAMA lobby

Collaborative Sketchbooks are located in the UAMA lobby. The sketchbooks allow students to add an entry to the sketchbook, look at other visitor's entries, and respond to or add to previous entries. Student responses can include writing, drawing, and questions. Each sketchbook has suggested prompts, but can also be used with specific prompts related to your class curriculum and goals for your museum visit.

What is museum literacy?

Museum literacy is feeling comfortable and competent to use the museum successfully as a resource. Visitors who are museum literate feel confident in the galleries; they develop personal connections, think critically, and achieve the goals of their visit. Museum literacy helps foster visual literacy - the ability to understand and discuss visual culture - which is an essential 21st century skill for student success and lifelong learning. Museum literacy can be developed by modeling modes of participating in the galleries and supplying resources that guide open-ended thinking and invite personal connection and confidence in looking at art.

Figure 4: Final Resource, Side 2

APPENDIX A: CURATE A PLAYLIST RESOURCE, PAGE 1

Use the JAMA collection to curate a new playlist of music.!!

As you approach a work of art that interests you, think about different songs that create a personal connection for you as you look at the piece (use either the entire song or just part of a song). Select up to eight works. You can try this exercise either independently or with a partner or group.!!

After creating your playlist, go back and take your new musical self-guided tour. Reflect on how curating your own path and connections constructs new meanings for yourself as you look at the art a second time. Optional: Use an app like Spotify so that you can keep, share, and add to the playlist.!!

!
!
Title of Playlist _____!

!
1!
! Title of artwork!
! Artist!
!
! Title of song!
! Music/Artist!
!
! Notes:!
!

2!
! Title of artwork!
! Artist!
!
! Title of song!
! Music/Artist!
!
! Notes:!
!

3!
! Title of artwork!
! Artist!
!
! Title of song!
! Music/Artist!
!
! Notes:!
!

!
!

APPENDIX B: TRUST YOUR INSTINCTS RESOURCE

Walk around the galleries quickly, spending a maximum of 3 seconds looking at each work of art. Make mental notes about which pieces catch your eye.

Return to one of the pieces that stood out to you and spend 10 minutes looking at it. As you spend time with the artwork, use the space below to reflect however feels most meaningful to you. For example, write down observations, personal connections, questions you have, draw a response, draw parts of the piece of art, write a poem, etc.

Choose another of the artworks that stood out to you during your first walk through and spend 10 minutes with that piece. Use the space below to reflect on the piece however feels most meaningful to you. You can also make connections between the first piece of art you looked at and this one.

APPENDIX C: INTERVIEW QUESTIONS

Pre-interview questions: Professors Participating in Study

1. When have you previously brought classes to the University of Arizona Museum (UAMA) of Art? What were your goals for the visits; were they unguided, assigned as homework, or a guided by a docent?
2. What made those previous visits successful?
3. What made the visits less successful or what were issues you encountered?
4. Have you ever collaborated with the UAMA education department? If yes, can you tell me about the collaboration?
5. What are your goals for visiting the UAMA or assigning a visit to the UAMA this semester, fall 2016?

After question 5, I will explain the different resources I have developed. I will have emailed copies and explanations of these resources in my e-mail confirming the time and day of the interview for the professor to review before the interview.

6. Which of these resources would best supplement your curriculum? Are there any changes you would like to make to any of the resources?

Post-interview questions: professors participating in study

1. How was this visit similar or different to past class visits to the UAMA?
2. Did the resources help supplement your class objectives or goals of visiting the UAMA? Why or why not?
3. Do you have any suggestions for changes or additions to the resources?

Interview questions: students participating in the study

1. Have you ever visited museums outside of school, for example on your own or with friends or family? If yes, what kinds of museums do you enjoy to visit and why?
2. Have you visited the University of Arizona Museum of Art (UAMA) before? If yes, tell me about your previous visit experiences.

Follow-up: How does UAMA connect with the University of Arizona Campus? What suggestions do you have for how they could best serve the campus community?

1. Reflect on your museum visit: How did you choose to participate in the museum?

Follow-up if they used either collaborative sketchbooks or the close-looking activity: Can you please talk about what you wrote and/or drew?

2. How was using the resource you chose different or similar to how you have experienced museums in the past?

3. Let's look at the pictures you took to document your visit. Can you tell me what is happening in each one?

4. Do you have any other suggestions or comments about the resources or your museum visit?

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