

Professional Self-Efficacy in Museum Educators

Caitlyn E. Bramble

A thesis

submitted in partial fulfillment of the  
requirements for the degree of

Master of Arts

University of Washington

2020

Supervisory Committee:

Jessica Luke

Julia Miller

Mark Windschitl

Program Authorized to Offer Degree:

Museology

©Copyright 2020

Caitlyn E. Bramble

University of Washington

**Abstract**

Professional Self-Efficacy in Museum Educators

Caitlyn E. Bramble

Chair of the Supervisory Committee:

Jessica Luke

Museology

In the 21<sup>st</sup> century, museum educators are adapting to a changing field and actively considering the meaning of their roles as professionals, and yet there is little research on the topic of professional self-efficacy in museums. The purpose of this phenomenological study was to examine museum educators' professional self-efficacy. A diverse group of thirty-three practicing museum educators were interviewed, all of whom worked in non-STEM-focused institutions. Leadership strategies, institutional culture, and access to professional development emerged as significant factors in the development of museum educators' professional efficacy. Study results suggest practices that could be employed by museum studies faculty, mentors of emerging professionals, and others invested in the professionalization of museum educators to support the ongoing development of their colleagues' confidence to do their jobs.

*Keywords:* Museology, Informal Education, Self-Efficacy, Museum Education, Professional Self-Efficacy

**Table of Contents**

<b>Table of Contents</b>	<b>4</b>
<b>Chapter 1: Introduction</b>	<b>6</b>
<b>Problem</b>	<b>6</b>
<b>Summary of Literature</b>	<b>7</b>
<b>Purpose Statement and Research Questions</b>	<b>9</b>
<b>Significance to the Field</b>	<b>10</b>
<b>Chapter 2: Literature Review</b>	<b>11</b>
<b>Self-Efficacy Theory</b>	<b>11</b>
Definition of self-efficacy	11
Measuring self-efficacy	15
Applications of Bandura's theory	16
<b>Professional Self-Efficacy in Teachers</b>	<b>18</b>
Link to job satisfaction and retention	18
Effectiveness in professional practice	19
Teacher training and professional development	19
<b>Museum Educators' Professional Development and Pathways</b>	<b>21</b>
How does one become a museum educator?	21
What do they do all day, anyway?	22
Need for shared professional language and sense of role	23
Professional development in the field	24

PROFESSIONAL SELF-EFFICACY IN MUSEUM EDUCATORS	5
<b>Chapter 3: Methods</b>	<b>26</b>
Criteria for Participation	26
Sampling	26
Data Collection	27
Participants	27
Limitations	30
<b>Chapter 4: Results &amp; Discussion</b>	<b>31</b>
<b>RQ 1. How do museum educators describe their professional self-efficacy?</b>	<b>31</b>
General levels of confidence	31
Training and experience	34
Personal characteristics	35
<b>RQ 2. What contributes to positive self-efficacy beliefs and what prevents positive self-efficacy beliefs for museum educators?</b>	<b>38</b>
What promotes self-efficacy	38
What prevents self-efficacy	42
<b>Chapter 5: Conclusions and Implications</b>	<b>47</b>
<b>Conclusions</b>	<b>47</b>
Organizational culture plays a BIG role	47
Museum educators feel confident in their roles	49
<b>Implications</b>	<b>51</b>
For supervisors of museum educators	51
Alliances between formal and informal educators	52
For museum studies programs, EMPs, and mentors to emerging professionals	53
<b>References</b>	<b>55</b>
<b>Appendix A. Instrument</b>	<b>60</b>

## Chapter 1: Introduction

### Problem

Museum educators come from varied professional and academic backgrounds (Bailey, 2006; Bevan & Xanthoudaki, 2008; Uyen Tran & King, 2007). Educators in K-12 contexts, on the other hand, nearly all engage in a relatively standard sequence of pre-professional education. In the United States, university-based Teacher Preparation commonly includes courses in educational psychology, teaching methods, and field experience in the schools, thus resulting in state certification (Darling-Hammond, 2017). These standard characteristics of Teacher Preparation Programs also play a role in the development of a professional identity for pre-service teachers (Darling-Hammond, 2017; Leijen, Kullasepp, & Anspal, 2014). Furthermore, Teacher Preparation Programs result in higher rates of retention of teachers in the field (Zhang & Zeller, 2016).

This retention of well-trained, confident teachers in classrooms may also be related to teachers' self-efficacy (Bandura, 1977), or the "belief in one's agentic capabilities, that one can produce given levels of attainment" (p. 382). In the case of museum educators, we know little about their professional practice and resulting self-efficacy. Museums in the 21<sup>st</sup> century provide opportunities for K-12 teacher professional development and as locations for teacher training (Phillips, Finkelstein & Wever-Frerichs, 2007; Robinson, 2019; Sparks, 2018; Stetson & Stroud, 2014), but it is unclear if museums invest as much in the professional development of their own educators. If professional development and self-efficacy beliefs are central to K-12 teachers' professional identity, the same must be true about educators who work in informal settings. It seems a more thorough investigation of professional development and the presence (or absence) of museum educators' own self-efficacy is needed. Low levels of self-efficacy are known to be

related to professional burnout (Schwarzer & Hallum, 2008; Shoji, Cieslak, Smoktunowicz, Rogala, Benight, & Luszczynska, 2016), which may aid in further describing what Nolan has called “the museum educator crisis” (2009). Alongside a decade-long interest in professionalization and developing a shared professional language among museum educators (Bailey, 2006; Uyen Tran & King, 2007), museum educators also seek to preserve the freedom to experiment and embrace varied styles of teaching in museums (Briggs Kemeza, 2019). An understanding of how the field is or is not supporting museum educators’ abilities to form a clear career identity, obtain professional autonomy, and develop a sophisticated educational practice may better prepare museums to support agentic professional thinking and increase museum educators’ confidence in their roles as museum professionals.

### **Summary of Literature**

Self-efficacy is a component of Bandura’s Social Cognitive Theory. According to this theory, self-efficacy is the “belief in one’s agentic capabilities, that one can produce given levels of attainment” (Bandura, 1977, p. 382). In essence, this phenomenon is a self-assessment not of one’s level of ability or skill relative to accomplishing a task, rather a self-assessment of how confident they are in their capability to use and organize their existing set of skills in a specific situation. Self-efficacy is, according to Bandura, a constantly developing individual characteristic, with development happening in response to one’s perception of life experiences:

In acting as agents over their environments, people draw on their knowledge and cognitive and behavioral skills to produce desired results. In acting as agents over themselves, people monitor their actions and enlist cognitive guides and self-incentives to produce desired personal changes. They are just as much agents influencing themselves as they are influencing their environment (Bandura, 1989).

Perception of experiences like learning through modelling, having successful prior experiences, persuasion/encouragement from others, and one’s physical or emotional circumstances all

contribute to the development of self-efficacy (Bandura, 2011). In this model, people are wholly responsible for and responsive to their actions, skills, and motivation, resulting in a process of development that is individual to each person.

Research on self-efficacy beliefs also extends to the professional lives of K-12 formal educators. In this context, studies of professional self-efficacy discuss workplace challenges faced by K-12 teachers and the tools they use to navigate these situations (Corona, Christodulu, & Rinaldi, 2017; Friedman & Kass, 2001; Kokkinos & Stavropoulos, 2016; Kraut, Chandler, & Hertenstein, 2016; Lauermaann & König, 2016; Malmir & Mohammadi, 2018; Reina, Healy, Roldán, Hemmelmayr, & Klavina, 2019; Renbarger & Davis, 2019). Definitions of professional self-efficacy for teachers may only limit this phenomenon to describing in-classroom interactions and teaching skills, but Friedman and Kass (2001) argue that a teacher's sense of self-efficacy extends beyond the classroom domain.

While teachers do facilitate activity within their classrooms, confidence in their abilities to function in a work environment (i.e. meeting with supervisors, communicating needs, and goals, participating in the school community) are also crucial to understanding teachers as professionals with or without efficacy. Yoo (2016) affirmed this claim noting that, "...teachers' professional development effort does have a positive effect on teacher efficacy. In addition, the descriptive self-analyses of teacher efficacy in this study have shown that gaining new knowledge was generally positively related to teacher efficacy." Additional research suggests that teachers with high degrees of self-efficacy feel satisfied and are also willing to continue in their profession (Renbarger & Davis, 2019; Emre & Ünsal, 2017; Kanadali, 2017). In order to develop this self-efficacy, teachers need access to mentor relationships, professional learning opportunities, and supportive administrators in their school systems to cultivate their positive

self-efficacy beliefs (Kanadali, 2017; Kraut et al., 2016; Liu & Hallinger, 2018; Malmir & Mohammadi, 2018; Schwarzer & Hallum, 2008).

In recent years, museum education has grown in prominence and in sophistication, which has led to a discussion among practitioners and scholars regarding pressing issues for this subsection of the larger museum field. Challenges related to the need for improving practice and affirming the relevance of informal education as a professional discipline are among these points of conversation in the field (Bailey, 2006; Bevan & Xanthoudaki, 2008; Shulman, 2014; Munley & Roberts, 2006; Nolan, 2009; Uyen Tran & King, 2007). Accomplishing this goal has traditionally been challenging for museum educators, as there is currently no streamlined path to practicing as a museum educator and even less streamlined understanding of what it means to do this type of work (Bailey, 2006a; Nolan, 2009). Informal educators working in museums also represent a diverse group of people with individual perspectives, pre-professional experiences, and content-area knowledge. Often, this is viewed as a strength of the profession due to the inherently collaborative and community-centric work of museums. However, museum educators also hold a variety of job titles which may or may not accurately describe exactly what they do within their institutions (Bailey, 2006a; Shulman, 2014). As such, museum educators are yearning for a more unified and professionalized cohort of professionals.

### **Purpose Statement and Research Questions**

The purpose of this study was to better understand the self-efficacy of museum educators. It was guided by the following research questions:

1. How do museum educators describe their professional self-efficacy?
2. What contributes to and prevents positive self-efficacy for museum educators?

**Significance to the Field**

Currently practicing museum educators, museum studies faculty, and emerging museum professionals are all stakeholders in furthering the understanding of best practices in preparing future museum educators for careers in museums. This desire to continue professionalization in the field is intertwined with supporting and cultivating the self-efficacy of those who facilitate and design for learning in museums. As museum educators, much like their counterparts in K-12 education, are asked to complete “other duties as assigned” and continue developing engaging opportunities for learning, the possibility for burnout is evident. In pro-museum advocacy, an often-cited statistic communicates the significant contributions of museums to the national economy and job pool (American Alliance of Museums, 2017a). However, if museum educators are experiencing any degree of inhibition to their sense of self-efficacy in their work, for whom is the museum field a beneficial workplace?

## **Chapter 2: Literature Review**

This study explored museum education as a profession informed by three bodies of literature. In order to contextualize the phenomenon of self-efficacy which the study will assess, this literature review will address the concept as proposed by Albert Bandura. Through this lens, the review will also address the role of self-efficacy in research studies regarding academic achievement, personal health/wellbeing, and professional practice. To further understand the role of self-efficacy in museum educators' work, this section will also address the current research regarding professionals closely related to the educational work of museum educators. An examination of research on teachers' professional self-efficacy will further inform how Bandura's theory may apply to educators in non-formal learning spaces, such as museums. Finally, this review will address practices in the professional development of museum educators and the diverse pathways they pursue toward a career in museums. With these bodies of literature as context, this study presents an opportunity to apply known methods of developing self-efficacy and assessing this construct in K-12 teachers to understand how self-efficacy influences museum educators in the 21<sup>st</sup> century.

### **Self-Efficacy Theory**

#### Definition of self-efficacy

Social psychologist Albert Bandura (1977) first described the phenomenon of self-efficacy as the "belief in one's agentic capabilities, that one can produce given levels of attainment" (p. 382). Contrary to other psychological theories such as behaviorism, which rely on the response to environmental stimuli as an indicator of behavior (Skinner, 1974), Bandura's theory states that the development of confidence and competence to perform an action is an internal, metacognitive process. Throughout his work in the 1980s, Bandura continued to argue

self-efficacy is not an emotional response to stimulus or a consideration of how others may perceive them performing the action. Bandura (1986) does, however, explain that individual achievement occurs as the result of how well a person can “orchestrate” an existing set of skills and associated “subskills” rather than if they can perform under certain conditions. With these ideas in mind, one must operate under the assumption that orchestration is not a separate skill and is a process in conjunction with general cognition. Because Bandura proposes it is individual self-efficacy, and not environmental conditions, which advance or hinder personal agency, a person’s belief in their own ability will determine whether they will do what they set out to accomplish (Bandura, 1989).

The presence of self-efficacy relies solely on the “self-judging” (Bandura, 1986) an individual does during periods of self-reflection. Because people self-judge whether or not they perceive themselves as efficacious, the study of this phenomenon relies on self-reported data of one’s perception of their confidence in completing a proposed set of tasks. The data one reports on self-efficacy is valuable in assessing a number of characteristics and possible outcomes of human behavior, according to Bandura (2006):

Efficacy beliefs influence whether people think erratically or strategically, optimistically or pessimistically. They also influence the courses of action people choose to pursue, the challenges and goals they set for themselves and their commitment to them, how much effort they put forth in given endeavors, the outcomes they expect their efforts to produce, how long they persevere in the face of obstacles, their resilience to adversity, the quality of their emotional life and how much stress and depression they experience in coping with taxing environmental demands, and the life choices they make and the accomplishments they realize.

Self-efficacy is a way to judge how capable someone believes they are, and how they may react to stress, indicated by their self-perception. While a measure of self-efficacy may help understand whether a person will think deliberately and make a plan when faced with an obstacle

or simply give up completing the task, it is not assessing the impact of the obstacle on their ability to perform. This again reinforces that it is the individual's perception of their own skills, and not their perception of the environment which characterizes self-efficacy. Therefore, the construct of self-efficacy is an individual characteristic which develops in response to an individual's perception of critical events during the lifespan. These critical events may include learning via a model, having successful prior experiences, being persuaded/encouraged by others, and through physical or emotional circumstances (Bandura, 2011). These four circumstances are internalized and processed by the individual, which informs their actions later. Therefore, there is also some utility in self-efficacy measures acting as predictors for outcomes in certain domains of life such as stress in college students (Saleh, Camart, & Romo, 2017), or ability to cope with trauma caused by experiencing terrorist attacks (Kimhi, Eshel, Leykin, & Lahad, 2017). While each domain may not present the exact same set of challenges with which a person may need to cope, self-efficacy is universally applicable to understand how well or poorly a person may operate in these different contexts in their own lives.

While the circumstances presented by an environment can induce stress or negatively impact well-being in other ways, such as those mentioned in the studies referenced earlier (Kimhi et al., 2017; Saleh et al., 2017), self-efficacy is characterized by the individual perception of ability to manage skills as informed by the perception of life experiences. For example, high school students in Hungary participated in a study to understand how they perceived their teachers' abilities to support their autonomy in learning through reporting their perceptions of teacher behavior (Pikó & Pinczés, 2015). This study supports the notion that it is not the qualities or circumstances of the physical classroom environment which impacted students' self-efficacy,

rather the students' perception of how teachers supported their senses of autonomy and their confidence in working independently.

First, our findings showed that autonomy-supportive behaviour was associated with decreased levels of verbal and psychic aggression, and an increased level of self-efficacy. These results are in concordance with previous research results (Assor et al. 2005; Correia & Dalbert 2007; Donat et al. 2012; Kamble & Dalbert 2012; Vansteenkiste et al. 2012; Walsh et al. 2010)." (p. 114)

However, this "autonomy-supportive" behavior also appeared to be more widely directed at (or perhaps more frequently noticed by) students with established high levels of achievement in school; additionally, teachers' controlling rather than autonomy-supporting behaviors positively impacted some students' sense of self-efficacy (p.114). Such findings may seem to demonstrate an inconsistency in the role of teacher behavior on student efficacy, but it more likely represents the individual needs and perceptions of students. This also affirms that it is the individual's perception of their own skillsets and perception of events such as learning from a model (i.e. a teacher) and not their responses to physical environmental characteristics, which inform levels of efficacy. In this example, some students need more support and direct supervision to perceive themselves as confident in their work, while others need a supervisor (in this case, a teacher) to allow them space to experiment and more freely experience their established confidence in managing their existing skills.

As self-efficacy is an individual and internal process of self-evaluation, the presence or absence of self-efficacy beliefs is subject to influence by the change in one's perception of their own skill. According to Bandura (1993), when people think skill is an inherent trait rather than something which can be learned or acquired over time, their own efficacy decreases; while when the acquisition of skill is presented and as a goal which can be attained by the individual, efficacy increases.

### Measuring self-efficacy

In terms of measuring self-efficacy, Bandura (1986) mentions that a measure of self-efficacy is not a measure of skill, rather is it a measure of “what people believe they can do under varied circumstances...” While a person’s work environment, for example, may present a set of variable circumstances, assessment of self-efficacy is not an assessment of these circumstances as being detrimental or beneficial, rather it is simply an assessment of individual potential for achievement. For example, work may be a stressful environment leading up to a particularly important deadline, but a person’s self-efficacy to handle this stress is the same characteristic which allows them to individually manage their work during less stressful times in the same domain, or to manage stress in another aspect of their lives.

A more general self-efficacy scale, therefore, may not measure domain-specific obstacles or skill and instead focus on the individual’s relationship with whether they feel they can or cannot achieve a task. Schwarzer and Jerusalem (1995) developed a scale which is meant to be broad in scope. It also measures individual perception of skill, not possession of skill. While certainly inspired by Bandura’s theory, Schwarzer and Jerusalem take self-efficacy and look outward to how people may feel confident or not confident in their general abilities, rather than how confident they are in their profession or role as a parent, for example. Schwarzer and Jerusalem’s (1995) General Self Efficacy Scale, or GSE, employs generalized language to communicate their intent to measure this broader sense of efficacy for which their scale measures. Using a four-point Likert scale to assess whether the statements of the 10-item questionnaire are on a scale from “not at all true” to “exactly true” the GSE asks for participants to reflect generally on how they handle “daily hassles” and adapting to “experiencing all kinds of stressful life events” (1995). This metric considers the total of their experience in all situations

that are difficult, unlike Bandura's domain-specific measures of self-efficacy for teachers, children, and parents (2006).

#### Applications of Bandura's theory

Throughout the literature on self-efficacy, measurements of this construct are often used to predict types of behavior and self-efficacy beliefs are known to influence behaviors related to academic achievement (Maya & Uzman, 2019.; Stajkovic, Bandura, Locke, Lee, & Sergent, 2018), describe perceived effectiveness in one's profession and ability to adapt to changing professional paradigms (Shoji et al., 2016; Warren & Steffen, 2018) , and is shown to work against adverse circumstances which can interfere with achievement such as the effect of low socioeconomic status on critical thinking skills (Huang, Liang, Hou, Thai, Huang, Li, Zeng, & Zhao, 2019).

Turkish university students were subjects of a study to assess the role of self-efficacy beliefs on their addiction to smartphones and participating in "cyberloafing" behaviors (Gökçearslan, Mumcu, Haşlaman, & Çevik, 2016). Researchers used Schwarzer/Jerusalem's GSE and Bandura's concept of self-efficacy to understand the relationship between self-efficacy, self-regulation and smartphone addiction/cyberloafing activity. Noted in the study was the relationship of high levels of "cyberloafing" or smartphone usage in class unrelated to the learning environment (i.e. checking personal messages or playing mobile games during class) to students with lower self-efficacy beliefs (2016). These students who did not self-identify as being efficacious and therefore not confident in their abilities perhaps use their phones in class as a method for avoiding their lack of confidence in the classroom. While the relationship between self-efficacy and smartphone addiction was not found to be strong, its relationship to the

behavior of cyberloafing does provide insight regarding low self-efficacy as an indicator of engaging in avoidant behavior such as cyberloafing.

The relationship between self-efficacy and avoidant or procrastinating behavior is also noted in Guo, Yin, Wang, Nie, and Wang's (2019) assessment of self-efficacy and emotional intelligence in junior nursing students. This study argues that self-efficacy may play a role in whether a student procrastinates or not because "...[S]tudents with high self-efficacy believe that they have the competence and resources to deal with problems in a difficult situation. In contrast, low self-efficacy prevents students from attempting the learning act effectively" (p. 2712). This perception of a student's ability is described here as being related to a student's attempt to complete learning tasks. Again, this is not an assessment of skill, rather how well the individual perceives their own ability. A sense of low self-esteem is also noted as playing a role in the cycle of procrastination as related to self-efficacy. Guo et al. cite another study which described this phenomenon:

Third, for the sake of defending their self-esteem, students may delay the decision to start learning so as to attribute worse academic performance to the lack of time rather than internal factors (Krause & Freund, 2014). (p. 2712)

While self-efficacy and self-esteem are distinct constructs from one another, the authors go on to say in their article that "...[I]f an individual believes that the goal is more likely to be completed, the tendency to procrastinate may be less. That is, self-efficacy is strongly associated with procrastination" (p. 2019). Much like the Turkish study, this study also found a link between low self-efficacy and procrastination behavior though this study firmly established self-efficacy as a mediating factor between Emotional Intelligence and procrastinating.

## **Professional Self-Efficacy in Teachers**

### Link to job satisfaction and retention

Examining self-efficacy in teachers is key to contextualizing a teacher's sense of job satisfaction and their feelings about education as a profession (Emre & Ünsal, 2017; Kanadali, 2017). If teachers do not feel confident in their abilities to do their jobs and manage the stress associated with their jobs, how can they possibly be satisfied in their work or experience professional success? Renbarger and Davis (2019) more explicitly discussed this relationship in the case of first year and early-career educators. They noted that understanding if new teachers feel capable and willing to continue in their roles as teachers is significant, since new teachers experience a great deal of stress during their first years in the classroom (Renbarger & Davis, 2019). They argued that this stress is one factor which, left unacknowledged and unmanaged, may lead to teachers' dissatisfaction with their jobs, and eventually cause their departure from the profession. Other research supports this notion of relating dissatisfaction in the profession to leaving the field, which is referenced in the study as well:

Teacher job satisfaction has been found to increase teacher retention and teachers' level of commitment to the profession (Goldring et al., 2014). Job satisfaction refers to the sense of contentment to a profession (Locke, 1969) and the extent that one's occupational needs are met from the day to day activities of employment (Evans, 1997) (p.22).

The ability of an individual to advocate for their needs, persist in the face of challenge, and manage stress, of course, are examples of actions taken by a professional with high levels of self-efficacy, which positions job satisfaction and teacher retention squarely in relationship with a sense of positive self-efficacy beliefs.

On the other hand, teachers with low levels of self-efficacy are more likely to experience low levels of job satisfaction and subsequently leave the profession due to burnout. Lauerman

and König (2016) suggested that this burnout and departure from teaching could also be the result of teachers' whose low levels of General Pedagogical Knowledge (GPK) cause negative self-efficacy beliefs in their teaching skills. Zhang and Zeller's work (2016) also seems to communicate this, as they found teachers with experience in strong teacher preparation programs are more likely to continue being teachers.

#### Effectiveness in professional practice

Positive teacher self-efficacy may also indicate educators who are "effective" in their disciplines and presents evidence of this efficacy specifically related to their content area. In music education, for example, prospective teachers prepare for their careers during university education in the roles of performers and educators, both of which require different criteria for assessing positive self-efficacy and effectiveness (Biasutti & Concina, 2018):

In music education, music teacher self-efficacy is an indicator of teachers' effectiveness (Klassen & Tze, 2014). Moreover, it is important to note that the competencies involved in effective music teaching are quite different than the skills of an effective musical performer (Lehmann, Sloboda, & Woody, 2007). Considering these assumptions, we can argue that music teaching is characterized by a specific type of music teacher self-efficacy (p.266).

In this study, researchers examined self-efficacy in music teachers as related to their thoughts on musical ability and found that educators who believed they could improve their musical abilities through practice and study over time also had high levels of self-efficacy (Biasutti & Concina, 2018).

#### Teacher training and professional development

Securing quality training for teachers before they enter the field seems to be crucial to understanding teacher self-efficacy as well. A study of preservice teachers in Turkey (Kanadali, 2017) supports the importance of quality training through positive attitudes/practices of university instructors in developing teacher candidates' self-efficacy. Kanadali (2017) notes that

a university instructor's methods of teaching and interacting with prospective teachers impacts self-efficacy. Instructors who scaffold the development of autonomy in their students are likely to see students who have higher self-efficacy, and therefore have positive attitudes regarding the field:

The quantitative findings show a positive, low level, and significant relationship to exist between teachers' professional self-efficacy beliefs and their perceived autonomy support ( $r = 0.171, p < .05$ ). Similarly, prospective teachers' perceived autonomy support reveals itself as a significant predictor of their professional self-efficacy...In the qualitative findings, prospective teachers expressed their self-efficacy to be influenced positively when instructors have positive attitudes towards them, establish good relationships with them (good communications), care about them, become a model for them, give them positive feedback, and trust and support them (p. 1861).

Without quality programs to build teachers' skillsets in pedagogy, content knowledge, and teaching practice, it may be more difficult for teachers to be self-efficacious in their careers.

Access to and encouraging participation in professional development activities is also known to impact professional self-efficacy for in-service teachers (Kraut et al., 2016; Reina et al., 2019; Stanton, Cawthon, & Dawson, 2018; Yoo, 2016).

Corona et al. (2017) revealed that professional development and training is particularly important for teachers who work with specific populations that require specialized knowledge to support, such as those on the Autism spectrum:

Findings highlighted the impact of training, with prior training in ASD and PBS emerging as significant predictors of self-efficacy for working with students with ASD. In addition, school professionals' knowledge and self-efficacy increased following participation in a training on ASD and PBS, providing preliminary evidence that training in EBPs may enhance school professionals' belief in their abilities to successfully work with students with ASD. These self-efficacy beliefs may be particularly important for individuals working with students with ASD, given the unique needs of the ASD population (Iovannone et al., 2003) and the heightened risk of burnout among teachers with ASD (Coman et al., 2013). Taken together with existing evidence on positive outcomes associated with teacher self-efficacy (e.g., Ross, 1998), the present findings highlight the need for providing quality training to school professionals working with students with ASD (p.96).

Through these experiences, educators are able to grow and learn professionally, which increases self-efficacy. This professional growth may be necessary to support the needs of students, but also benefits teachers sense of confidence and competence in their roles. Schools therefore must actively support their teachers' desire for learning new skills and practices to encourage efficacy development.

### **Museum Educators' Professional Development and Pathways**

How does one become a museum educator?

It is known that museum professionals come from varied backgrounds and are responsible for a variety of tasks which sometimes extend beyond the realm of educating visitors (Bailey, 2006a; Bailey, 2006b; Bevan & Xanthoudaki, 2008; Shulman, 2014; Merritt, 2014).

While there exist formal and informal professional organizations such as the American Alliance of Museums, the Emerging Museum Professionals Network, and other social media groups to support and connect museum professionals, paths to the career are not streamlined. Of the 186 graduate and undergraduate museum studies programs in the US, only 4 of them grant degrees specifically in Museum Education, according to AAM's online Museum Studies Program search tool. Not only are these education-specific programs few and far between, they are also limited to a concentrated geographic area— George Washington University (Washington, D.C.), Bank Street College of Education (New York, NY), City College of New York (New York, NY), and University of the Arts (Philadelphia, PA) are all located on the east coast of the United States.

Unlike their counterparts in formal education, postsecondary education or certification is not required to practice in museums, as it is for K-12 teachers. Often, advanced degrees such as an MA are viewed as a "preferred" qualification, but professional accreditation or certification are not required (Bruens, 2020). Instead, museum educators may have formal training in

Museology/Museum Studies alongside pre-professional experience in museum education internships, as museum volunteers, or in some other related informal education experience such as summer camp facilitation or childcare (Bailey, 2006a; Bailey, 2006b; Bevan & Xanthoudaki, 2008; Ebitz, 2005; Shulman, 2014)

Recently, the University of Washington's Museology Graduate Program commissioned a study examining the characteristics of graduate programs in Museum Studies. This study conducted by Stein and Jones (2018) included a focused investigation of its own alumni and their perceptions of the program and its benefit to their careers post-graduation. While not representative of the experiences present across the entire museum field, this research did represent the first comprehensive study of its kind regarding the academic preparation of emerging museum professionals. Investigation of alumni experiences revealed that while alumni who graduated between 2006 and 2013 viewed a museum studies/museology graduate degree as valuable for a career in the field, the cost of higher education in this field is not always a worthwhile investment (Stein & Jones, 2018). Additionally, the examination of both UW alumni's perception of the skills learned and professionals in the field not associated with UW's perception of museum studies curriculum both revealed gaps in academic programs' ability to prepare emerging professionals in the areas of finances/development, social justice, and in diversity/equity/inclusion work. These gaps in formal training align with skills that alumni and employers in the museum field identified as being crucial for success in 21<sup>st</sup> century museums.

What do they do all day, anyway?

Frameworks in recent years have sought to more clearly define the role of museum professionals and to identify qualities of effective practice (American Alliance of Museums, 2017b; Markham, 2018). In reality, the literature describes a lack of agreement among museum

educators regarding their roles due to economic circumstances in the US over the past 15 years and the ambiguity of descriptions and titles among museum education jobs.

Nolan (2009) addresses the presence of a larger “identity crisis” among museum educators regarding the 2008-2011 Great Recession, and the economic toll it took on museums. Nolan explains that a possibility for this crisis was the movement for de-professionalization of formal educators combined with layoffs of museum educators and downsizing of education departments due to budget cuts (2009). Likewise, Bailey echoes the presence of an identity crisis, though she cites the confusing labels attributed to museum educators as being a source of conflicting ideas regarding professional roles and a shared understanding of museum education as a profession (2006b):

Educators who operate under inconsistent job titles such as “*Education Associate III, Humanities Program Director, Program/Volunteer Coordinator, Curator of Education; Curriculum and Evaluation Coordinator; and even Director of Education* are less communicative in terms of the museum educator's actual function and the context in which they carry out this work. This fact aligns and corresponds with something that a number of [museum educators] have run into: a lack of understanding on the part of the general public as to just what museum education is about. Therefore, the absence of a typical perception of the role of museum educator (and what's involved to prepare for that role) may not just be a conundrum for museum educators themselves, but also for the audiences they serve. It is important to add that the museum educator's actual role and responsibilities often appear fuzzy due to the multiple hats that many museum professionals wear (p. 157).

#### Need for shared professional language and sense of role

While Bailey's (2006a & 2006b) work set the stage for examining the roles and identities of museum educators her work describing the self-reported identities of museum educators focuses mainly on the experiences of those working in science museums. Educators interviewed in one study reported having training in disciplines other than science, such as “general education, visual arts, performing arts, English, and social science” (p. 177) despite now working

as science communicators, which acknowledges the possibility for working outside of the content area from one's academic training. It should be noted, however, that Ebitz (2005) examined the professional identity and background of art museum educators. Much of this study examines professional practice through the lens of pedagogy borrowed from formal education in art and art history as traditionally adopted by art museums and their educators. Taylor and Neil (2008) note that the lens of informal, or as they call it, "nonformal" education is key to understanding museum education as well and distinguish the learning activities in museums as being distinct from those in formal education contexts such as schools.

#### Professional development in the field

Uyen Tran and King (2007) explored professionalization in science museum education but focused on this movement as a potential catalyst for developing a common identity and professional self-efficacy:

[Professionalization is] a useful mechanism whereby new museum educators may be consistently prepared for a body of work which is agreed upon by their peers. Such a mechanism is valuable in that it helps to develop a shared sense of identity and community, as well as confidence in the quality of work (p. 136).

While professionalization may lead to the formation of a more concrete museum educator identity, this notion seems to ignore the humanity of museum educators in favor of their professional skills and knowledge. Bevan and Xanthoudaki (2008) acknowledge that the goal of professionalization is important, but also note that this effort must occur in conjunction with an acknowledgement of the diversity in professional training or content knowledge present in the museum field and recognizing the importance of humanity:

Museum educators come from eclectic backgrounds-some have classroom teaching experience, some have subject-matter backgrounds, many come from entirely different domains. In many US science museums, floor staff people tend to be young and in transition, in others they are retired and volunteers. In the EU, floor staff are commonly young science graduate students who hold part-time jobs

at the museum. Such staff-like all educators who are challenged daily to draw fully on their mind, body, experience, and enthusiasm to engage others in learning- need opportunities for rejuvenation, reflection, and recommitment to their professional practice (p. 114).

While museum educators do come from varied backgrounds and degrees of knowledge, this study again references science museums and their staff, without a clear observation of how this may be similar or different in other content areas.

Museum educators are people with personal in addition to professional lives, and these crises faced by museum educators seem to be rooted in the same issue of being unclear on the goal or goals of their position, which likely impacts their own perception of their work and professional goals. Whether it is in the form of a confusing and not universally understood job title, or in being asked to do too many things without a time to reflect and engage with one's humanity, there are clearly systemic issues within the field. These issues specific to museum educators appear to detract from the potential of museum educators to experience positive self-efficacy beliefs in their work.

### **Chapter 3: Methods**

The purpose of this phenomenological study (Creswell, 2013) was to better understand the self-efficacy of museum educators. The study was guided by the following research questions:

1. How do museum educators describe their professional self-efficacy?
2. What contributes to and prevents positive self-efficacy for museum educators?

This chapter describes the types of museum educators selected for the study and explains the criteria by which they were chosen. It also describes participant sampling methods and methods of data collection/analysis. A brief discussion of limitations regarding this research is also within this chapter.

#### **Criteria for Participation**

Museum educators were recruited and selected for participation based upon a set of specific criteria related to their status of employment, type of museum in which they work, and relationship to work in K-12 teaching. This information was presented in a recruitment document which communicated a need for museum educators who met the following criteria:

Are paid staff either full-time or part-time in an art, history, cultural, or other non-science focused museum (Paid staff at a children's museum who also meet the remaining criteria are also welcome to participate); Facilitate programs and/or interact directly with learners at your museum; Are NOT trained as a classroom teacher (K-12 teacher certification); Have NOT taught in a K-12 school (public or private); Are willing to participate in a 30-minute Zoom interview.

#### **Sampling**

Through the use of email, social media, and professional organizations' communication channels, the researcher reached out to museum educators across the United States and, in one instance, in Canada. Following dissemination of the recruitment document, 37 museum educators responded to the call for participants. Prospective participants emailed the researcher

directly to indicate an interest in participating in the study, per the instructions in the recruitment document. In email exchanges, it became clear on 4 occasions that prospective participants did not meet the criteria due to prior experiences in K-12 schools as a substitute teacher, working in a natural history museum (as it is scientific institution), or no longer working as a museum educator.

### **Data Collection**

The researcher conducted a total of 33 semi-structured interviews via video conference. This technique allowed for a variety of educators from across the US and Canada to participate in this study. Participants scheduled their own interview times using an online appointment calendar. To increase comfort of and convenience to participants, appointments could be scheduled on a weekend day as well as during weekdays for those who were not able or did not want to meet during the week while at their workplace.

Interviews were conducted using a three-part interview guide which included questions related to general information about their place of employment/job title, an adapted version of the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995) and Bandura's (2006) Teacher Self-Efficacy Scale, and the second research question stated above (see Appendix A for the interview guide). To make the Self-Efficacy scale more applicable to museum educators, language from the original scales were modified to include terms from AAM's Education and Interpretation Standards (AAM, 2008). The researcher also asked participants to describe any other parts of their experiences as museum educators not previously addressed in the interview.

### **Participants**

Educators in this study provided demographic information regarding the type of institution where they work, length of time in the field, and job/department title (Tables 1-4).

Table 1. Participants by museum type

Type of Museum	Number of Participants
Art/Design	10
Local history	8
History- other	5
Children's museum	3
Historic house	2
Museum complex	2
State history	2
Anthropology	1
<b>Total:</b>	<b>33</b>

Table 2. Participants' job titles

Title	Number of Participants
Coordinator positions (i.e. Program Coordinator, Public Engagement Coordinator, Education Coordinator)	10
Educator (i.e. Museum Educator, Art Educator)	7
Manager positions (i.e. Manager of Interpretation, Education Programs Manager)	6
Other	3
Curator positions (i.e. Assistant Curator of Engagement or Curator of Community and Academic Programming)	3
Specialists (i.e. Specialist for University Audiences or Engagement Specialist)	2
Director of Education	2
<b>Total:</b>	<b>33</b>

Table 3. Department in which participants work

<b>Department</b>	<b>Number of Participants</b>
Education	19
Education “and” (i.e. Education and Programs, Collections and Education, Curatorial and Education)	6
Programs (i.e. Academic Programs, Programs, Public Events and Family Programs)	3
Engagement (i.e. Engagement Unit, Learning and Engagement)	3
Other (i.e. Public Affairs, Department of Studio and Gallery Learning)	2
<b>Total:</b>	<b>33</b>

Table 4. Participants’ length of time in the museum field

<b>Years in the field</b>	<b>Number of Participants</b>
0-5 years	13
5-10 years	12
10-15 years	6
15+ years	2
<b>Total:</b>	<b>33</b>

Participants also provided the researcher with their personal pronouns for accurate descriptions of their gender identity at the time of the interviews. For the purposes of clarity, educators who reported using she/her pronouns are classified as women, and educators who reported using he/him pronouns are classified as men. Based on this data, 94% of participants were women (n=31) and 6% of participants were men (n=2).

**Limitations**

The limitations of this study relate to the number of years participants have been in the field, and the disproportionate number of women museum educators. In this study, 75% of the sample reported being in the museum field for ten years or less. According to a 2017 survey done by the National Emerging Museum Professionals Network (NEMPN), 95% of NEMPN's membership have also been in the field for 10 years or less, which places these participants in the category of "emerging" professionals. That being said, the results of this study mainly reflect the perspectives of this generation of young, emerging professionals. It is therefore difficult to claim any significant differences in how museum educators describe their efficacy depending on their length of time in the field and level of experience in museums.

Furthermore, the low number of men and absence of transgender, nonbinary, and genderqueer professionals in this sample may not accurately represent the field as a whole, but these demographics reflect NEMPN's study (2017) which also found that just over 85% of EMPs identify as women. While this study did not ask participants to provide their racial identity, NEMPN also found that nearly 86% of EMPs identify as White (2017). Without assuming the racial identity of participants in this sample, it is still evident that the museum field's emerging professionals, according to NEMPN, are mostly White female millennials, which is also likely representative of this sample.

## Chapter 4: Results & Discussion

Over the course of 33 interviews with museum professionals, answers to this study's guiding research questions emerged. This chapter presents findings which describe: 1- How museum educators describe their professional self-efficacy; and 2- What contributes to and prevents positive self-efficacy beliefs in the educators interviewed.

### **RQ 1. How do museum educators describe their professional self-efficacy?**

As supported by the existing literature on the diversity and breadth of experiences museum educators bring to the field, each museum educator brought their own individual experiences and expertise to the interviews. Yet some trends within "generations" of museum educators arose. Emerging professionals, classified as those who are less than 10-15 years into their museum work, generally communicated having high levels of teaching self-efficacy, citing both personal awareness of individual skills/strengths and areas for growth. Established professionals with 15+ years in the museum field also communicated high levels of general self-efficacy related to their work, and also discussed elements of their career paths which are unique to their "generation" of museum professionals and may have impacts on the way they conceptualize their roles in the field.

#### General levels of confidence

In general, museum educators communicated that they feel confident in their professional roles. Educators' responses varied but included general statements such as "I feel pretty confident," or "I feel very confident." Some educators in a new job contextualized their description of confidence relative to the amount of time in that new role: "I feel pretty confident but obviously I'm just starting and I'm still learning." Others described their confidence as being high, and also accounted for personal traits of successful practitioners in the field: "[My

confidence right now is] pretty high, I think anyone who's in museum education [has] to be really flexible." Some noted that their level of confidence has changed, such as this educator who said, "I would have given you a different answer 8 months ago, but now [my confidence is] pretty high." Another noted that her confidence is high due to similarity of her current role to past experiences: "I feel really confident because [my job now] is very similar to jobs I've had before."

Across the interviews, educators indicated that their time in the field and experience in museums tended to impact their confidence. Even for educators who were fewer than 10 years into their careers and considered emerging professionals, observations about time spent in their workplaces and their ability to advocate for their needs demonstrated a level of agency in their current roles. For some, this also existed in balance with an appropriate level of challenge relative to their existing and developing competencies:

I feel very confident. I feel really comfortable in my role, I don't generally feel bored...I feel like I'm at a good challenge level in my work. I understand my skill set and where my growth opportunities are and ask for ways to help me grow and get those opportunities to grow.

Another educator described her confidence as relative to her mental health and her ability to use strategies for coping with the moments of low confidence. She said, "I think coupled with my frequent impostor syndrome and actual anxiety I often feel like I can't [do my job]. I'm always like 'how did you end up here?'" She also noted that while her personal circumstances and perceptions likely influenced her lack confidence, her ability to connect with others in the field and be open to learning from them and is central to her feelings of being very confident in her work:

But all of that aside, I've worked in a lot of different places and a I have a great network of people I can talk to or bounce ideas off of and learn from...So I've gotten to this point where if I feel like I can't do it I always have resources and

people to learn from and with. My confidence lies in the fact that I am constantly learning, and that is one of the benefits of being in the education department is [learning] is our job.

This response indicates that while her confidence is an individual perception, there is a substantial role that a person's professional network and ability to utilize that network plays in professional confidence. While this response may initially read as someone with low confidence in their work, it actually is evidence of a professional with high levels of self-efficacy. She is able to mobilize her network and coordinate resources at her disposal to increase her confidence in stressful situations.

For some, stress and transitions looked a bit different. One educator was currently transitioning between a position at a small local history museum to a position at a larger national institution. She noted that while the transition of moving out of one position and into another is challenging, continuing to grow professionally seemed more important than staying in a position which may be more financially rewarding. Speaking generally about this idea of career transitions she said, "It's tough to leave a bad museum if it pays the bills, but it's important to think about if I am learning skills that will help me in the future." Her awareness of individual needs and availability of opportunities to grow supported the level of confidence she communicated. This confidence extended to both her current role and her upcoming role:

[I feel] pretty confident with my work at [the historical society] mainly because I've been here for a year and a half or so, and my experience has given me the know-how [for teaching]. I do feel that I am comfortable with teaching. I do a lot of the tours here and I do like to teach, so my confidence level is pretty high at this moment.

[At my new position] I'm also a little bit confident because I'm using skills I already have learned at [my previous position]. It's new in that I'm learning new systems and the hierarchy and how everyone works together, and new content...but in terms of doing the work I feel pretty confident about it because I have so many different kinds of experiences [in museums].

### Training and experience

Level of experience in the field and types of training emerged as significant descriptors of general self-efficacy for museum educators. One educator who is a recent college graduate and in her first full-time museum position reported high levels of self-efficacy related to accomplishing specific tasks at work (i.e. engaging learners, adapting to disruptions while facilitating, etc.) but noted a significant area for growth in her own sense of executive functioning and effectiveness in completing the administrative portions of her job:

I could also work on my organizational skills. Transitioning from student to professional and navigating those two [has been challenging]; especially since it's only be 14 months for me [since I was in college].

This adjustment period from student to professional seems particularly relevant as museum studies programs are, according to the educators in this study different than when the more experienced professionals in this study were entering the field, a point that emerged in interviews with these educators. While a museum educator entering the field in the 21<sup>st</sup> century may have, as one educator called them “fancy papers” to show evidence of participation in a museum studies or, even more specifically, a museum education degree program, this is not the case for more seasoned professionals.

Established professionals had a more varied mix of academic and “on-the-job” training leading up to their careers. They also described the importance of this self-directed nature of their experiences to their levels of confidence. For example, an educator in her 24<sup>th</sup> year in the museum field described herself as “very confident” in her job and also noted, “I have worked at several other types of institutions; I understand the school system and learning styles.” This indicated her confidence was related to her training through work experience and her own investigation of local schools and learning theory. Later in her interview, she confirmed that her

training was more practical in nature but did line up with her academic experience, though parts of this experience were designed based on her practical experiences in museums:

[I got a] Bachelor's in Art History, Master's degree in art history with a focus on museum work at University of South Carolina; and a post-graduate certificate in Museum Studies in the late [1980s] early [1990s], and then that [model] influenced a lot of the current museum studies programs.

In her experience, this educator created her own concentration in museum work within the context of an established art history curriculum. She also entered the field through seeking out her own opportunities to volunteer and intern in museums, "Because when I first started, there was no road map of how to do it [enter the museum field]."

Another educator echoed this self-directed path as similar to her own experience. She mentioned this accumulation of largely on-the-job training rather than solely academic experience as being, "not uncommon for those who are vintage in the art museum," which indicates that a "vintage" generation of established professionals exists. This same educator also described her path as "a beautiful accumulation of knowledge over the years," again referencing a blended collection of experiential and academic skills in her professional journey.

#### Personal characteristics

In addition to specific interactions with educators or acknowledgement of their own professional philosophy, educators also described attributes of their personalities in relation to their levels of confidence in their work. For example, one educator identified her own strength in editing and brainstorming skills in the following way, "I'm pretty good at enhancing ideas; giving extra tidbits [to ideas in meetings/projects]." Through this observation, she communicated that her agency to contribute these ideas in meetings or during collaborative projects at work is a part of her professional confidence.

An educator at a large art museum, on the other hand, described her self-efficacy in a different way. She communicated a high level of confidence in her job generally due to her experience in education, a trait which is in short supply in her region of the United States:

[My confidence is] Pretty high yeah. It's probably because in [my city] right now there are people who are being hired in senior positions that don't have any knowledge of education in museums; I have [skills that are] needed and looked for.

She referenced having skills that are sought out as being central to her confidence, and cited personal experience related to her interest and training in education as part of her confidence and ability to form professional relationships as well:

My kids have gone to an amazing preschool that is part of a larger education organization which has shaped my relationship [in a positive way] with teachers and principals due to my vocabulary with informal education and how it works within the context of formal education.

Several educators also mentioned other personal abilities and traits such as being “flexible” or “adaptable” as part of their own sense of confidence. These traits indicate an ability to manage situations that may be unfamiliar or unexpected, which is exactly what self-efficacy scales intend to measure. Statements such as “you just make it work” and “I think anyone who’s in museum education [has] to be really flexible” demonstrate a general sense that flexibility and adaptability are necessary traits to succeed in museum education. One educator also referenced persistence in conjunction with flexibility. She said of museum education work, “You have to be flexible, roll with the punches and keep on going.”

Others connected their personal sense of flexibility to experiences outside of their professional lives, such as one educator who completed her graduate coursework in Sweden. She noted that her confidence was impacted by the experience of “Navigating a totally new system in Sweden- not having a place to live and making it work.” Essentially, she noted that if she could

handle moving to a new country and rapidly learn how to thrive in a completely foreign environment, she “can walk into a board room and talk to people.” Risk-taking also emerged as a characteristic relative to professional efficacy, as did self-identifying as a “lifelong learner.” Both frontline educators and administrative staff in education departments communicated these ideas as central to their general sense of self-efficacy. An emerging professional working in the education department of a large children’s museum said, “I am the type of person who takes risks and doesn’t think about the hierarchy [of the museum].”

For educators who work in facilitator positions mainly on the exhibit floor rather than in administrative role, the notion of building confidence through continuous learning and development manifested in comments like, “I try to get better each shift.” This educator is a part-time frontline facilitator at her museum, but still communicated the same ideas of taking risks and making new connections as the two examples from educators who are in administrative positions. An educator in the same role at this institution offered his perspective as well, noting that gaps in his content knowledge can impact his self-efficacy in the moment, but is also an opportunity to learn and grow from mistakes:

[My confidence decreases] whenever I give information [on a tour or program] I thought was accurate but then it turns out to be inaccurate...I want to research some more and figure out where this myth came from. [My job] is a role I enjoy because [museum education is] a field where it pays off to learn as much as you can- especially in a multi-disciplinary museum.

Another frontline educator at a children’s museum, indicated that her low level of experience does cause her to question her confidence, but is also an opportunity for growth. She said: “[I often] feel inexperienced compared to others in the room, but [asking for help] is a good way to encourage people to collaborate with you.” She addressed being more confident in situations

which allow her to share authority with other more experienced facilitators, like parents or caregivers:

I think that I am a lot more confident doing outreach programs currently rather than in-museum work just because the parents of kids are more involved with the program or being in school. [It also helps that] there is another adult to support me.

## **RQ 2. What contributes to positive self-efficacy beliefs and what prevents positive self-efficacy beliefs for museum educators?**

Museum educators are inherently self-reflective and insightful when discussing their work, which emerged in their responses to research question two. As stated by Bandura (2008), self-efficacy beliefs are developed at the individual level through four processes: successful accomplishment of tasks or “mastery experiences,” observing the behavior and actions of others through “social modelling,” receiving encouragement and praise from people important to one’s life, and one’s physical and/or emotional state. This section will provide a more complete image of those processes and how they manifest relative to the development or inhibition of self-efficacy beliefs in museum educators.

### What promotes self-efficacy

Museum educators frequently described the intrinsic motivation and passion which guides their work, making statements not only about their personal belief in the field, but also about a general sense of community and shared priorities of the field. One participant noted, “I love museums and education. Most education staff really care [about their work] and try really hard to overcome these institutional challenges so that’s nice.” This sense of personal motivation and recognition of this as a common trait in other educators informed analysis of how museum educators spoke about the impact of their work on others. Museum educators’ passion for their work is justified and appreciated when witnessing the impact of their work on audience

members. Bearing witness to this impact their work has on their audiences was a significant developer of their efficacy beliefs.

For some, this included the recognition of their development and improvement in practice as having an impact beyond their professional lives, “My experiences are not just helping me but others too.” Others discussed this impact using specific observations of visitor emotions and mood, “...but seeing the happiness in students, teachers, chaperones and giving an enriching experience to them outside of school is really rewarding.”

However, this impact of positive visitor experiences and feedback was not limited to in-museum experiences. Another educator mentioned her own work outside of the children’s museum where she works as a specific motivator to improve and grow in her teaching:

I also do outreach at senior centers and transitional housing- gets art out to folks who may not have access to it normally which is a big deal to them, and they’re excited about it, which makes me feel good. I’m able to touch a lot of lives in a lot of ways; it encourages me to do the best I can.

Working in service of others while practicing a new skill also falls into this category of a mastery experience. For example, an educator who also does work to ensure accessibility of her museum to people with disabilities discussed her own experience of practicing how to describe the museum to a blind visitor, “Learning visual description with a blind person and getting positive feedback from her was beneficial [to my self-efficacy].” Following this successful experience, she can continue to support visitors to the museum by developing more confidence in working directly with Disabled visitors.

Museum educators in this study often reported that their efficacy increased when they receive verbal support from their supervisors and colleagues. Participants indicated that this support at the institutional level is impactful to their existing self-efficacy beliefs, consistent with Bandura’s notion of social persuasion through encouragement from “credible persuaders”

(2008). An educator described her current role and relationship to the institution as a contributor to her efficacy: “At my current job, I am given so much autonomy to do programming. [I can ask for] tools I need to do it, buy supplies, or [request] having another educator [on staff] for support.” In this situation, asking and having access to adequate resources was possible because of her museum’s willingness to support this educator’s endeavors based on confidence in her abilities to do so effectively.

While educators in entry- and mid-level positions tended to describe the importance of their direct departmental supervisors as “persuaders,” this curator of education at an art museum noted that colleagues across the institution are also impactful upon her efficacy beliefs:

With all the change [at the museum] and internal work that I’ve been doing, you see how the sausage is made and it’s kind of disheartening. But I’ve also found that departments [in the museum] are allies where I wasn’t sure if they were. And they believe in the importance of our work [in museum education].

For established professionals such as this participant, the presence of interdepartmental support is crucial for seasoned educators. Knowing support and appreciation for one’s work exists beyond the immediate domain of museum education is clearly a powerful experience for museum educators.

This appreciation is not a passive process though, and one educator specifically described how an actively involved and informed management structure is beneficial to her work. She noted, “Upper management is supportive and reads proposals actively and usually approves, that does a lot toward building confidence.” It is not enough for supervisors and mentors to simply say “yes, go ahead.” Rather, they must demonstrate an active interest in an educator’s process of program planning and development, for example, such as through “actively” reading a proposal. In some cases, such as another educator’s experience at a children’s museum, development of efficacy did rely on an implicit affirmation of an educator’s work, rather than explicitly

approving a proposal: “I think I’ve been here long enough where I feel comfortable doing things now, and they’ve given me the go ahead to do weekly activities on my own.” However, her department’s support of her work was grounded in an established, active relationship over time, which takes effort and continued engagement between educator and supervisor.

Educators whose workplaces model attendance at professional development also articulated that they feel encouraged to do so as well. For example, one educator described the benefit of regular opportunities for professional learning. She said of her supervisors encouraging attendance at such events, “[encouraging professional development] made me feel better about where I’m at in general- continuous learning about different audiences, working with visitors on the [autism] spectrum.”

Another educator described that her confidence increased when supervisors actively support professional development through “allowing me to attend a [local museum educator group] meeting and counting it as work time.” With this experience being valued as part of her work in addition to program planning and implementation within the museum, educators sensed that their museums support constant learning and development, which empowers them to seek out opportunities for additional training, learning, and networking across the field.

Finally, educators described their own emotional and physical states relative to their confidence in working in museums, particularly as these states change over time. A part-time frontline educator at a multidisciplinary museum described the physical and emotional states of repetition and experiencing familiar events at her museum as promoters of her self-efficacy:

I kinda said this earlier- repeated events [at the museum] like the maker faire in September, the first time [the event occurred] was right after I started working here. And then the second time I helped to run and organize [the maker faire]. I stepped up and led the teen volunteers running the floor at the museum. It was just me in charge of a lot of teens, and I thought ‘look how much I’ve grown’ now I’m in charge.

This educator also noted that she observed an increase in confidence after experiencing the same state of being during this event when she began her position. The second time she experienced this circumstance, she had grown in her experience and confidence, but was aware that her mindset had changed from simply working the event to having a part in facilitating it. She had more ownership of her work and identified that as evidence of growth.

For another educator, her time at a historic house museum has also impacted her physical state of being comfortable performing the tasks she does at work. She noted that she feels her current amount of time at the museum is a sweet spot for being comfortable in managing her work:

I have pretty high confidence in the work I'm doing, like I said I'm at that magic four-year mark [at my museum]; things are much more natural and automatic, and I can see the outcomes/impacts of long-term projects.

#### What prevents self-efficacy

Conversely, self-efficacy can be inhibited via the same processes through which it is developed. Poor social modelling, lack of affirmation and encouragement, and failure experiences were central to discussions of barriers to self-efficacy development. Several educators described “horror stories” of encounters with guests, but generally noted that even these “failures” presented opportunities for personal and professional growth. However, descriptions of the social aspects of their workplace environments and the impact of those circumstances on their efficacy were extremely compelling.

Several museum educators in this study articulated meeting resistance from leadership when trying to advocate for their department's needs. One educator noted her self-efficacy is inhibited when, “Getting negative feedback for being ‘too assertive’ when advocating for [programs] in the museum.” Another described how her own resourcefulness with a limited

budget can get in the way of management's understanding how much to invest in educational programming: "When you make [an education program] work with no money, then it sets the precedent that you can do [quality museum education programming] for no money."

Another educator spoke more generally about the perceived lack of understanding regarding what museum educators do while at work. She specifically cited the energy spent on defending that work in context with her organization's mission as detrimental to her sense of efficacy:

I work for a lot of people who don't understand museums or museum education, so I spend a lot of time explaining how my work is relevant. I'm not just running around doing crafts with kids all day, so how my work is tied to the mission of the foundation can get overlooked sometimes.

This educator then communicated that for her, this is an issue that also exists outside the context of her work in the museum:

Especially outside of the museum world, trying to explain the work we do is challenging. When you're doing informal education, it's really hard to explain to people what we do, let alone why it's important.

Other educators described the culture of an entire organization or department can also inhibit efficacy development. For some, this culture was informed by the attitudes and opinions of one particular person in leadership: "My department is headed by someone who is pretty jaded about the museum/thinking the administration doesn't support education."

In other cases, organizational culture and priorities that diminish efficacy were as a result of an incompatible operational model. One educator described this incompatibility: "Our concerns in education are on the back burner because we don't bring in a lot of money, and [our museum uses] a business-type model where numbers are a big deal." Another educator echoed this sentiment and spoke of the precedence the museum's goals have over the goals of museum educators. This, he said, caused him to not only feel less confident, but also to question the relevance of his job at the museum.

Sometimes we'll get cuts to funding [for the museum education department] because there's the sense that our department isn't important. If this role I'm filling is not valued, then why am I here?

Additionally, one educator noted the difference with which some education departments generally appear to value their staff as a barrier to efficacy development:

Education departments that place higher value on certain members of staff over like frontline and facilitation staff or [prioritize] full time staff over part time staff [prevent my sense of confidence].

It would seem that valuing all members of the education team would be beneficial for both museum staff and for the museum's audience, but this comment indicates that in reality, there is a divide in some museums. An educator from a different museum also said institutional politics inhibits her efficacy, and described it this way:

I think [what prevents my confidence] and this is a tricky one because it's not something you learn in school is that navigating politics at each institution is tricky. I like to think that everyone has the best intentions, but the larger the institution the more politics you have to work.

Another educator echoed this phenomenon in the context of her museum, which is also classified as a large museum. She noted:

There is a toxic environment in the [education] department and in the department culture. Entry level staff are not respected [at my museum], and public facing folks are treated as if they're childish or naïve. It's threatening [to upper management] for a young person to be confident and taking risks.

Lapses in mentor relationships also impacted educators' senses of efficacy in a negative way.

This educator described her experience as an emerging professional and how having a strong mentor increases confidence, but only when someone is actively working in the position: "Mid-level supervisors can make or break your experience [in museum education], and there was 3 months of [me] not having a supervisor, which was a difficult time for me."

Beyond organizational challenges related to leadership and workplace culture, educators also identified limits to moving forward or advancing their careers as negative impacts on their self-efficacy:

There are very few opportunities for next steps, in a few years when I'm looking for a new job it doesn't feel like there are more opportunities to step up in museums; and it does create larger questions about the field and workforce sustainability.

Another educator expanded upon this thought and cited the systemic issue of salary stagnation as a factor that weakens self-efficacy beliefs in her career as a whole:

I don't have confidence that there is room for me to grow or have career mobility. And I don't have confidence in a salary range boost, which makes me feel less confident in the role [of museum educator] but not in my teaching.

Here, wage stagnation and perceived lack of opportunity for career advancement seemed to impact general self-efficacy for educators but did not have an impact on their teaching efficacy. This is an important distinction, as museum educators must feel supported in all aspects of their professional roles in order to thrive when facilitating and designing for learning.

While issues of workplace culture, career advancement and salaries seemed to be the most common inhibitors to self-efficacy, educators did describe their emotional and psychological states as inhibiting factors as well. Educators who perceived the achievements and strengths of colleagues in comparison to their own capabilities as "better" or "more accomplished" said their resulting mental state is impactful on how they viewed their own confidence.

For example, this educator at a design museum who spoke of her experiences with internships at major art and design museums in the past mentioned experiencing impostor syndrome twice in her interview. She had the qualities of a confident museum educator (i.e. a combination of internship and academic training, willingness to expand professional knowledge,

awareness of personal strengths), yet still doubts her own efficacy in comparison to others' work.

It is important to note that this educator described her confidence in her job is tied to her ability to seek resources and support but noted that her network of coworkers can also be a source of stress and anxiety:

I work with such brilliant people who are masters of their content area; there's this feeling like we're all competing for our opportunities to shine but at the same time I work with mastermind humans who are managing so much and I'm not as much doing a ton of things as if I was in a smaller museum. Is it impostor syndrome? Or am I just reacting to being in such a high achieving and inspiring environment?

For other educators, the physical and mental experience of stress manifested in a different way.

One educator described her increasing workload beyond the main responsibilities of her job as a source of stress, which negatively impacted her own self efficacy. On the subject of taking on extra work, she said,

It's necessary to keep the boat afloat. But "work you didn't apply for" impacts feeling valued, but also impacts others; [for me,] absorption [of colleagues' work] is moderate but that's just me. And it hits other people much, much harder. For the most part I'm very confident; but in the past 6 months there have been a lot of transitions administratively, so it's been a lot- more food, same size plate.

## Chapter 5: Conclusions and Implications

The purpose of this study was to better understand the self-efficacy of museum educators. It was guided by the following research questions:

1. How do museum educators describe their professional self-efficacy?
2. What contributes to and prevents positive self-efficacy for museum educators?

Through semi-structured interviews with 33 museum educators, this study investigated the perspectives of currently practicing professionals' sense of their professional self-efficacy. Qualitative data describing their senses of efficacy and factors which they reported increase or decrease their self-efficacy at work exposed common traits among these educators, and a generally high level of self-efficacy across the sample.

### Conclusions

#### Organizational culture plays a BIG role

Research on teacher self-efficacy revealed that K-12 teachers' documented stressors and barriers to self-efficacy development include feeling over-worked and under-supported. Access to quality professional development and relationships with mentors are proposed as methods by which to better manage these stressors in the literature (Kraut et al., 2016; Lauermann & König, 2016; Malmir & Mohammadi, 2018; Petridou et al., 2017; Renbarger & Davis, 2019; Schwarzer & Hallum, 2008; Yoo, 2016). Likewise, museum educators in this study articulated similar challenges in their profession, noting on several occasions that in museums where they perceive professional development and opportunities to connect with colleagues in the field are not valued by administrators, they feel less confident in their roles.

Museum educators are often motivated by intrinsic values and passion for education, public history, and serving their communities (Bailey, 2006; Bevan & Xanthoudaki, 2008; Briggs

Kemeza, 2019; Ebitz, 2005; Munley & Roberts, 2006) motivations consistent with those of the museum educators in this study. Because of this internal sense of purpose and motivation, an efficacy-promoting organizational culture and leadership is crucial for museum educators to be confident in their roles. Friedman and Kass support this notion as well since, according to them, teacher self-efficacy is not just about one's confidence in their teaching skills, rather it is also characterized by how confident they feel participating as members of a school community and as stakeholders in the school's mission (2001), much like museum educators do for their institutions.

Professional development, much as it is for teachers (Kraut et al., 2016; Reina et al., 2019; Stanton et al., 2018; Yoo, 2016), greatly impacts the level of confidence for museum professionals as well. Practical, hands-on experiences rather than traditional lecture models work best for museum educators (Uyen Tran, Gupta, & Bader, 2019), though these models may require more time and emotional investment from participants. This can mean reduced productivity and missed time in the office or on the floor, but the return on investment for museums seems to be significant, given the increase in confidence and effective practice in K-12 teachers following enactive and experiential professional development such as those described in Stanton et al. (2018). If an organization does not recognize the value in investing in museum educators' professional learning, no matter their level/status within the organization, the results can be catastrophic, which is supported by the relationships between self-efficacy and professional burnout in teachers (Corona et al., 2017; Lauermaann & König, 2016; Schwarzer & Hallum, 2008). This seems particularly relevant given the history of museums in offering professional development programs designed for K-12 teachers and offered by museum education departments, a phenomenon noted by Robinson's review of the subject (2019).

Educators in this study communicated a sense of feeling de-valued when not encouraged to attend training and invest in their careers, likewise when they are asked or expected to do the work of several people and, as one participant noted “absorb” the responsibilities of colleagues during tough and transitional times. This infringement upon a museum educator’s valuable time spent at work bears resemblance to teachers who report feeling burnt out due to their own expectations of taking on more work and not being encouraged to seek outside learning (Lauermann & König, 2016; Schwarzer & Hallum, 2008; Shoji et al., 2016).

#### Museum educators feel confident in their roles

Museum educators, and the museums in which they work, have obviously changed since Bailey (2006a, 2006b) and Nolan (2009) argued for increased professionalization over a decade ago. However, issues these authors raised such as ambiguous job titles, perceptions of low funding, and institutional bias against education staff do still exist, as evidenced by data discussed in the previous chapters. In some ways, the museum field has changed. Literature a decade or more ago described “wanted to get professional certification,” yet modern graduate programs specifically focused on museum education are few and far between, indicating that goal was not realized. Undoubtedly, the field was affected by the Great Recession (Nolan, 2009) which may account for the lapse in research on museum education, and for presence of a relatively young and early-career group of professionals in this sample. It is unclear how this post-Recession paradigm will shift again following the COVID-19 pandemic, but past and current research indicates that a significant shift is coming following this similarly large-scale event.

Naming and embracing educators’ reactions to these changing/unchanging circumstances and professional perspectives through this research represents an opportunity to form a rich

professional network of museum educators. Bailey (2006); Bevan and Xanthoudaki (2008); Taylor and Neill (2008) all found this community of educators to be present in interviews with museum educators in the past, and participants in this study also reflected upon their own senses of community as educators, supporting the idea of a profession unified by identity, if not by professional title or credentials. The museum educators in this study are empowered risk-takers who are facing increasing workloads, low wages, and sometimes un- or under-supportive leadership with open minds and creative thinking. Museum educators likely have such high reported self-efficacy in their jobs because they are engaging sophisticated interdisciplinary skillsets including content area research, prior work experience, connecting with colleagues, and problem-solving to overcome challenges faced in their work.

Museum educators in this study also reported their efficacy has changed or will change over time, citing prior experience with confidence leading to growth, acknowledgement of opportunity to continue practicing their job responsibilities, and encouragement from workplace culture as agents of this change. Another study to follow up with these participants and reflect on changes to their efficacy from what they reported in February/March of 2020 even one year from now would yield necessary data to confirm or deny growth in these professionals. Such a study would be similar to other studies of self-efficacy which documented changes in professional and personal efficacy over time (Kimhi et al., 2017; Stanton et al., 2018; Yoo, 2016).

While past scholars argued that a more unified professional identity through some form of standardized training would be a solution to the issues faced by museum educators, it seems that the field must reconsider how it provides professionals with opportunities to feel supported and encouraged while they are practicing in the field, rather than solely focusing on the redesign of pre-professional education. Efficacy is developed through modelling and successful hands-on

experiences, which can be (and is) employed at the graduate level through internships and practicum experiences (Stein & Jones, 2018). Practicing professionals, on the other hand, discussed needing more immediate support for their efficacy development. Such support being beneficial to their professional efficacy is supported by Bandura's extensive writing on the implications of having high confidence in one's professional abilities. Self-efficacy makes an individual's work more efficient and rewarding to them because they feel confident in their abilities to accomplish goals (Bandura, 2008). For museum educators, professional self-efficacy manifests in positive relationships with audiences, communities, and colleagues so they are empowered and encouraged to increase their own professional knowledge. This encouragement and empowered state of being allows them to build confidence in their skills as facilitators of learning and as members of an organization which shares a common goal and values system.

### **Implications**

#### For supervisors of museum educators

Educators are naturally self-reflective, and we need to continue supporting the development of emerging professionals' self-awareness so they can continue to develop and be aware of their self-efficacy beliefs. This study revealed that a museum educators' direct supervisor and colleagues within their departments are generally supportive, but leaders in other departments/levels of influence within the museum generally are not. All of the reasons why educators may perceive that administrative staff do not support their work or appreciate the value of museum education as a discipline, but this study did expose educators' experiences with unsupportive leadership in museums where they have or currently work. With this in mind, it may behoove museum administrators to consider how their actions, priorities, and policies impact the efficacy of all museum employees. Particularly in organizations where education is

explicitly stated as part of the mission, an acknowledgement of educators' work and expertise may be long overdue.

With these implications in mind, the intentional support of museum educators' efficacy in the workplace is a pressing human resources issue within the museum field. Supervisors, HR professionals, and administrators in museums must recognize that professional self-efficacy is related to the effectiveness and well-being of museum professionals. While this study specifically examined the role of this phenomenon in education staff, it bears consideration that all museum employees should feel supported and confident in their work. For those in supervisory roles, this means actively supporting and modelling a healthy/mutually beneficial workplace culture and seize opportunities to confront the barriers present within most museums' hierarchical staff models. It is particularly important for museums without a formal human resources department and/or HR staff to take on the roles of supporting and advocating for employee rights and wellbeing through efficacy development and authentic community building among staff. The hierarchical structure of museums was identified a point of contention among museum educators regarding the field and emerged in participants' descriptions of feeling largely uninvolved in making decisions about or unable to voice their concerns within their institutions. Though more study is needed to fully understand how self-efficacy affects the well-being of museum educators and likelihood of them staying in the museum field long-term, this research represents a starting point in the discussion of protecting museum educators and re-examining harmful labor practices and procedures in museums and the field at large.

#### Alliances between formal and informal educators

Interestingly, museum educators discussed a sense of conflict in interactions with K-12 teachers during field trip visits to their museums. One museum educator referred to her

counterparts in K-12 contexts as “professional teachers,” which seemed to indicate a sense of hierarchy, positioning her work in facilitating museum learning as inferior to that of K-12 educators. However, education in these two contexts is neither better nor worse than the other, simply different. More research is needed to completely understand the relationship between the formal and informal education fields, but this study appeared to uncover a problem which is worthy of investigation. Both groups of professionals have the same needs for developing efficacy in their work and might provide much needed perspective and opportunity to one another. Such research and a subsequent shift in how formal and informal educators view each other could lead to mutually beneficial collaborations between public schools and museums.

For museum studies programs, EMPs, and mentors to emerging professionals

Nearly all participants brought up the idea of funding/money/low compensation proportional to investment in education; museum educators do not appear to feel confident in partnering with businesses. This was the most significant circumstance in which educators reported their lowest levels of efficacy. Developing relationships with businesses could be vital pipelines to obtaining additional financial resources museum education departments need. When these departments are working to produce successful, enriching, and sustainable work, it is concerning that this area of museum work is not in an educators’ toolbox of professional skills. The UW Museology program’s landscape study data regarding finance/administration courses in museum studies curricula shows that 25 programs out of the total programs examined for that survey (n=42) reported coursework in museum administration and finance on their websites (Stein & Jones, 2018). Assuming that the 6 programs whose websites did not have sufficient data to report on their curricula do not have such coursework, then just over half of the students graduating from MA programs in museum studies are likely not exposed to any kind of

education regarding finances and administration of museums. In this study, educators said it “wasn’t their job” to engage with businesses and that their low levels of efficacy are because “someone else handles that [working with businesses].” However, others have suggested that in the 21<sup>st</sup> century, all aspects of museum work which support the operation of the institution is everyone’s job (Dilinschneider, 2019). It is the hope of the researcher that museum studies programs and educators in the field will advocate for and engage in education regarding financial literacy, relationship-building with funding partners, and other aspects of development to ensure a financially sound future for museum education led by efficacious, empowered, and eager informal education professionals.

### References

- American Alliance of Museums. (2017a). *Museums as Economic Engines: A National Report*. 34.
- American Alliance of Museums. (2017b). Core Standards for Museums. American Alliance of Museums. <https://www.aam-us.org/programs/ethics-standards-and-professional-practices/core-standards-for-museums/>
- Bailey, E. B. (2006a). Researching Museum Educators' Perceptions of their Roles, Identity, and Practice. *Journal of Museum Education*, 31(3), 175–197. <https://doi.org/10.1080/10598650.2006.11510545>
- Bailey, E. B. (2006b). The Professional Relevance of Museum Educators. *Journal of Museum Education*, 31(3), 155–160. <https://doi.org/10.1080/10598650.2006.11510543>
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Clinical and Social Psychology*, 4, 359-373.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.
- Bandura, A. (2006). Guide for Constructing Self Efficacy Scales. In *Self-efficacy beliefs of adolescents* (pp. 307–335).
- Bandura, A. (2008). An agentic perspective on positive psychology. In S. J. Lopez (Ed.), *Positive psychology: Exploring the best in people* (Vol. 1, pp. 167-196). Westport, CT: Greenwood Publishing Company.
- Bandura, A. (2011). A social cognitive perspective on positive psychology. *Revista de Psicologia Social*, 26, 7-20.
- Bevan, B., & Xanthoudaki, M. (2008). Professional Development for Museum Educators: Unpinning the Underpinnings. *Journal of Museum Education*, 33(2), 107–119. <https://doi.org/10.1080/10598650.2008.11510592>
- Biasutti, M., & Concina, E. (2018). The effective music teacher: The influence of personal, social, and cognitive dimensions on music teacher self-efficacy. *Musicae Scientiae*, 22(2), 264–279. <https://doi.org/10.1177/1029864916685929>
- Briggs Kemeza, A. (2019). Embracing Individualism and Encouraging Personal Style in Gallery Teaching. *Journal of Museum Education*, 44(2), 147–154.
- Bruens, R. (2020). Children's Museum Educator: Career Outlook and Requirements. *Resilient Educator*. <https://education.cu-portland.edu/blog/teaching-careers/childrens-museum-project-coordinator/>

- Corona, L. L., Christodulu, K. V., & Rinaldi, M. L. (2017). Investigation of School Professionals' Self-Efficacy for Working with Students With ASD: Impact of Prior Experience, Knowledge, and Training. *Journal of Positive Behavior Interventions*, *19*(2), 90–101. <https://doi.org/10.1177/1098300716667604>
- Creswell, J. W. (2013). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, *40*(3), 291–309. <https://doi.org/10.1080/02619768.2017.1315399>
- Dilenschneider, C. (2019). Stepping Out of Silos: 5 Things That Are Everyone's Job in Cultural Organizations. Colleen Dilenschneider. <https://www.colleendilen.com/2019/08/28/stepping-out-of-the-silos-5-things-that-are-everyones-job-in-cultural-organizations/>
- Ebitz, D. (2005). Qualifications and the Professional Preparation and Development of Art Museum Educators. *Studies in Art Education*, *46*(2), 150–169. <https://doi.org/10.1080/00393541.2005.11651787>
- Emre, Ş. C., & Ünsal, S. (2017). The investigation of the relationship between secondary school teachers' self-efficacy beliefs and attitude towards teaching. *European Journal of Education Studies*, *3*(6). <https://oapub.org/edu/index.php/ejes/article/view/717>
- Friedman, I. A., & Kass, E. (2001). Teacher self-efficacy: A classroom-organization conceptualization. *Teaching and Teacher Education*, *18*.
- Gökçearsan, Ş., Mumcu, F. K., Haşlamam, T., & Çevik, Y. D. (2016). Modelling smartphone addiction: The role of smartphone usage, self-regulation, general self-efficacy and cyberloafing in university students. *Computers in Human Behavior*, *63*, 639–649. <https://doi.org/10.1016/j.chb.2016.05.091>
- Guo, M., Yin, X., Wang, C., Nie, L., & Wang, G. (2019). Emotional intelligence and academic procrastination among junior college nursing students. *Journal of Advanced Nursing*, *75*(11), 2710–2718. <https://doi.org/10.1111/jan.14101>
- Huang, L., Liang, Y.-L., Hou, J.-J., Thai, J., Huang, Y.-J., Li, J.-X., Zeng, Y., & Zhao, X.-D. (2019). General self-efficacy mediates the effect of family socioeconomic status on critical thinking in Chinese medical students. *Frontiers in Psychology*, *9*. <https://doi.org/10.3389/fpsyg.2018.02578>
- Kanadali, S. (2017). Prospective Teachers' Professional Self-Efficacy Beliefs in Terms of Their Perceived Autonomy Support and Attitudes towards the Teaching Profession: A Mixed Methods Study. *Educational Sciences: Theory & Practice*. <https://doi.org/10.12738/estp.2017.5.0597>
- Kimhi, S., Eshel, Y., Leykin, D., & Lahad, M. (2017). Individual, community, and national resilience in peace time and in the face of terror: A longitudinal study. *Journal of Loss and Trauma*, *22*(8), 698–713. <https://doi.org/10.1080/15325024.2017.1391943>

- Kraut, R., Chandler, T., & Hertenstein, K. (2016). The Interplay of Teacher Training, Access to Resources, Years of Experience and Professional Development in Tertiary ESL Reading Teachers' Perceived Self- Efficacy. *Gist: Education and Learning Research Journal*, 12, 132–151.
- Lauermann, F., & König, J. (2016). Teachers' professional competence and wellbeing: Understanding the links between general pedagogical knowledge, self-efficacy and burnout. *Learning and Instruction*, 45, 9–19. <https://doi.org/10.1016/j.learninstruc.2016.06.006>
- Leijen, Ä., Kullasepp, K., & Anspal, T. (2014). Pedagogies of Developing Teacher Identity. In C. J. Craig & L. Orland-Barak (Eds.), *Advances in Research on Teaching* (Vol. 22, pp. 311–328). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-368720140000022019>
- Liu, S., & Hallinger, P. (2018). Principal Instructional Leadership, Teacher Self-Efficacy, and Teacher Professional Learning in China: Testing a Mediated-Effects Model. *Educational Administration Quarterly*, 54(4), 501–528. <https://doi.org/10.1177/0013161X18769048>
- Malmir, A., & Mohammadi, P. (2018). Teachers' Reflective Teaching and Self-Efficacy as Predicators of their Professional Success: A Case of Iranian EFL Teachers. *Research in English Language Pedagogy*, 6(1), 117–138. <https://doi.org/10.30486/relp.2018.538818>
- Markham, L. (2018). *Discovering Science Center and Museum Career Pathways Using a Professional Learning Framework*. Informal Science. <https://www.informalscience.org/news-views/discovering-science-center-museum-career-pathways-using-professional-learning-framework>
- Maya, İ., & Uzman, E. (2019). *The predictive power of university students' self- leadership strategies on their self-efficacy*. 8.
- Merritt, E. E. (2008). *National Standards & best practices for U.S. museums*. Washington, DC: American Association of Museums.
- Munley, M. E., & Roberts, R. (2006). *Are Museum Educators Still Necessary?* 12.
- National Emerging Museum Professionals Network. (2017). *Who are EMPs? Survey Results*. National Emerging Museum Professionals Network. <https://nationalemppnetwork.org/category/who-are-emps-survey-results/>
- Nolan, T. R. (2009). The Museum Educator Crisis. *Journal of Museum Education*, 34(2), 117–121. <https://doi.org/10.1080/10598650.2009.11510624>
- Phillips, M., Finkelstein, D., & Wever-Frerichs, S. (2007). School Site to Museum Floor: How informal science institutions work with schools. *International Journal of Science Education*, 29(12), 1489–1507. <https://doi.org/10.1080/09500690701494084>
- Pikó, B., & Pinczés, T. (2015). Autonomy support or direct control?: High school students' experience of their teacher's behavior. *European Journal of Mental Health*, 10(1), 106–117. <https://doi.org/10.5708/EJMH.10.2015.1.7>

- Reina, R., Healy, S., Roldán, A., Hemmelmayr, I., & Klavina, A. (2019). Incluye-T: A professional development program to increase the self-efficacy of physical educators towards inclusion. *Physical Education and Sport Pedagogy*, 24(4), 319–331. <https://doi.org/10.1080/17408989.2019.1576863>
- Renbarger, R., & Davis, B. (2019). Mentors, Self-efficacy, or Professional Development: Which Mediate Job Satisfaction for New Teachers? A Regression Examination. *Journal of Teacher Education and Educators*, 8(1), 21–34.
- Robinson, C. (2019). Thoughts on the History of Professional Development Programs in Museums. *Journal of Museum Education*, 44(2), 123–130. <https://doi.org/10.1080/10598650.2019.1601840>
- Saleh, D., Camart, N., & Romo, L. (2017). Predictors of stress in college students. *Frontiers in Psychology*, 8.
- Schwarzer, R., & Hallum, S. (2008). Perceived Teacher Self-Efficacy as a Predictor of Job Stress and Burnout: Mediation Analyses. *Applied Psychology*, 57(s1), 152–171. <https://doi.org/10.1111/j.1464-0597.2008.00359.x>
- Schwarzer, R., & Jerusalem, M. (1995). The General Self-Efficacy Scale. <http://userpage.fu-berlin.de/~health/engscal.htm>
- Schwarzer, R., Schmitz, G. S., & Daytner, G. T. (1999). Teacher Self-Efficacy Scale. [https://userpage.fu-berlin.de/~health/teacher\\_se.htm](https://userpage.fu-berlin.de/~health/teacher_se.htm)
- Shoji, K., Cieslak, R., Smoktunowicz, E., Rogala, A., Benight, C. C., & Luszczynska, A. (2016). Associations between job burnout and self-efficacy: A meta-analysis. *Anxiety, Stress, & Coping*, 29(4), 367–386. <https://doi.org/10.1080/10615806.2015.1058369>
- Shulman, R. (2014). What does a museum educator do? (And do we need them?). *Museum Questions*. <https://museumquestions.com/2014/07/23/what-does-a-museum-educator-do-and-do-we-need-them/>
- Skinner, B. F. (1974). *About behaviorism*. Alfred A. Knopf.
- Sparks, S. (2018). Museums Are Dabbling in Teacher Training, and the Results Are Promising—Education Week. <https://www.edweek.org/ew/articles/2018/05/02/museums-are-dabbling-in-teacher-pd-and.html>
- Stajkovic, A. D., Bandura, A., Locke, E. A., Lee, D., & Sergent, K. (2018). Test of three conceptual models of influence of the big five personality traits and self-efficacy on academic performance: A meta-analytic path-analysis. *Personality and Individual Differences*, 120, 238–245. <https://doi.org/10.1016/j.paid.2017.08.014>
- Stanton, K., Cawthon, S., & Dawson, K. (2018). Self-efficacy, teacher concerns, and levels of implementation among teachers participating in drama-based instruction professional development. *Teacher Development*, 22(1), 51–77. <https://doi.org/10.1080/13664530.2017.1308430>
- Stein, J. & Jones, M.C. (2018). UW Museology Landscape Study: Museum Studies Programs. <https://www.washington.edu/museology/museology-program/landscape-study/>

- Stetson, R., & Stroud, N. D. (2014). Pre-Service Teacher Training at the Museum School. *Journal of Museum Education*, 39(1), 67–77. <https://doi.org/10.1080/10598650.2014.11510796>
- Taylor, E. W., & Neill, A. C. (2008). Museum Education: A Nonformal Education Perspective. *Journal of Museum Education*, 33(1), 23–32. <https://doi.org/10.1080/10598650.2008.11510584>
- Uyen Tran, L., Gupta, P., & Bader, D. (2019). Redefining Professional Learning for Museum Education. *Journal of Museum Education*, 44(2), 135–146. <https://doi.org/10.1080/10598650.2019.1586192>
- Uyen Tran, L., & King, H. (2007). The Professionalization of Museum Educators: The Case in Science Museums. *Museum Management and Curatorship*, 22(2), 131–149. <https://doi.org/10.1080/09647770701470328>
- Warren, A. R., & Steffen, A. M. (2018). Development of a Transgender and Gender Nonconforming Language Self-Efficacy Scale for Social Service Providers Working with Older Adults. *Journal of Applied Gerontology*, 0733464818759754. <https://doi.org/10.1177/0733464818759754>
- Yoo, J. H. (2016). The Effect of Professional Development on Teacher Efficacy and Teachers' Self-Analysis of Their Efficacy Change. *Journal of Teacher Education for Sustainability*, 18(1), 84–94. <https://doi.org/10.1515/jtes-2016-0007>

## Appendix A. Instrument

### Professional Self-Efficacy in Museum Educators Caitlyn Bramble Interview Guide

#### Pre-Interview Consent to Record

Before we begin, do I have your permission to record this interview?

\*If participant replies “yes” recording will proceed via Zoom.

Once consent is obtained, I will then inform participants that the interview is being recorded in response to their providing verbal consent.

OR

\*If participant replies “no” to consent to record the interview, interviewer will record written notes during the interview.

#### Part 1

These questions are voluntary, and your responses will be completely confidential.

1. How would you describe the type of museum where you work? (i.e. Large art museum, small contemporary art museum at a university, history museum, historic house museum, mid-size culture museum, etc.)
2. What is your job title at your museum? In which department(s) do you work?
3. How long have you worked at your museum? In the museum field?
4. Briefly describe your training and/or qualifications which prepared you for this job.
5. How would you describe your confidence in your ability to do your job as \_\_\_\_\_ at \_\_\_\_\_ museum right now? Why?

**Part 2** (Adapted from Schwarzer, Schmitz, & Daytner, 1999; Bandura, 2006)

Next, I'm going to read you a series of statements that are about how confident you are with particular aspects of your job. I want you to rate your confidence by recording a number from 0 to 100 using the scale given below:

- |                             |    |    |    |    |                             |    |    |    |    |                         |
|-----------------------------|----|----|----|----|-----------------------------|----|----|----|----|-------------------------|
| <b>0</b>                    | 10 | 20 | 30 | 40 | <b>50</b>                   | 60 | 70 | 80 | 90 | <b>100</b>              |
| <b>Not at all confident</b> |    |    |    |    | <b>Moderately confident</b> |    |    |    |    | <b>Highly confident</b> |
1. I am able to successfully facilitate meeting educational goals with even the most difficult museum audience members/visitors.
  2. I know that I can maintain a positive relationship with my museum's audience/visitors even when tensions arise.
  3. When I try really hard, I am able to reach even the most difficult audience members.
  4. As time goes by, I will continue to become more and more capable of helping to address my audience's needs.
  5. Even if I get disrupted while teaching in the galleries/facilitating programs, I can maintain my composure and continue to teach well.
  6. I am able to be responsive to my audience's characteristics and needs even if I am having a bad day.
  7. If I try hard enough, I know that I can exert a positive influence on both the personal and academic development of my audience/museum.
  8. I can develop creative ways to cope with system constraints (such as budget cuts and other administrative problems) and continue to teach well.
  9. I know that I can motivate my audience to participate in innovative projects.
  10. I can carry out innovative projects even when I am opposed by skeptical colleagues or skeptical board members/museum leadership.
  11. I can influence the decisions that are made in the museum.
  12. I am able to express my views freely on issues important within the museum.
  13. When necessary, I can get the instructional materials and equipment needed for my work.
  14. I know I can get visitors/audience members to follow museum/gallery rules.

**Part 2** (Adapted from Schwarzer, Schmitz, & Daytner, 1999; Bandura, 2006)

Next, I'm going to read you a series of statements that are about how confident you are with particular aspects of your job. I want you to rate your confidence by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	<b>50</b>	60	70	80	90	<b>100</b>	
<b>Not at all confident</b>			<b>Moderately confident</b>				<b>Highly confident</b>				

15. If I try really hard, I can get people in my community to become involved in museum activities.
16. I know how to make people feel comfortable coming to the museum.
17. I am confident I can get community groups involved in working with the museum.
18. I am confident I can get businesses involved in working with the museum.
19. I am confident I can get local colleges and universities involved in working with the museum.
20. When I am at work, I make the museum a safe and enjoyable place.
21. I can help other museum educators with their teaching/interpretation skills.
22. I am able to increase collaboration between museum educators and the administration to make the museum run in conjunction with its mission.

**Part 3**

Finally, I have two questions about the context surrounding your feelings of confidence in your job.

1. What, if anything, in your career/life experience would you say has promoted your confidence in your ability to do your job?
2. What, if anything, in your career/life experience has prevented your feeling of confidence in doing your job?