Lesley University
DigitalCommons@Lesley

Spring 2-25-2019

Perspectives of High School Photography Teachers Regarding Visual Literacy

Kristi Oliver
Lesley University, koliver@lesley.edu

Follow this and additional works at: https://digitalcommons.lesley.edu/education_dissertations

Part of the Art Education Commons, and the Photography Commons

Perspectives of High School Photography Teachers Regarding Visual Literacy

Kristi Oliver

Graduate School of Education

Lesley University

Dissertation in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Educational Studies

Individually Designed Specialization

Perspectives of High School Photography Teachers Regarding Visual Literacy

Kristi Oliver

Graduate School of Education
Lesley University

Ph.D. Educational Studies
Individually Designed Specialization

Approvals
*In the judgment of the following signatories, this Dissertation meets the academic standards
that have been established for the Doctor of Philosophy degree.*

Dr. Julia Byers   Signature: _____ _____
Dissertation Committee Chair   Date

Vivian Poey   Signature: _____ _____
Dissertation Committee Member   Date

Dr. Daniel Serig   Signature: _____ _____
Dissertation Committee Member   Date

Dr. Susan Patterson   Signature: _____ _____
Director, Ph.D. Individually Designed   Date

Dr. Brenda Matthis   Signature: _____ _____
Director, Ph.D. Educational Studies   Date

Dr. Amy Rutstein-Riley   Signature: _____ _____
Interim Dean, Graduate School of Education   Date

ABSTRACT

This qualitative study investigated the perspectives of high school photography teachers regarding visual literacy. A qualitative methodology that used a phenomenographic research design was employed to gain understanding about the perspectives of high school photography teachers in their conceptualization, perceptions, and experiences surrounding visual literacy. A survey/ questionnaire was used to explore participants' paths towards becoming a high school photography teacher, the amount of years they have been teaching, and their geographic location. Participants perception of school demographics such as school size, community contexts, racial, ethnic, and economic diversity were also collected. Additional prompts were designed to investigate curricular influences, pressing concerns, and pedagogical considerations regarding the various aspects of visual literacy. 100 survey/ questionnaire responses were collected along with five semi-structured interviews. Data were analyzed through constant comparison and *in vivo* coding was used to construct categories of description. The categories of description were further organized into three main themes: Curricular Influences, Pedagogical Considerations and Creative Applications. Data were then sorted into structural and referential aspects of experience to provide an overview of the outcome space. The structural aspects are described as teachers' influential experiences and the referential described as the teaching of visual literacy. The results of this study were organized into five major discussion points: 1.) Participants' lived experiences directly impact their teaching of visual literacy, 2.) Curriculum standards have limited impact on the teaching of visual literacy, 3.) Participants employ dialogue-based strategies when teaching visual literacy, 4.) Both analyzing and creating images are important aspects of visual literacy, 5.) Visual literacy addresses the needs of high school photography students.

DEDICATION

This dissertation is dedicated to the memory of my mother, who always encouraged me to learn as much as possible about anything I was interested in, and who supported my decision to pursue art education without hesitation.

ACKNOWLEDGEMENTS

I am grateful for the love and support of my family and friends who continue to surround me with encouragement, and laughs just when I need them. Special thanks to my husband, Michael Bradford, who always supports me no matter how challenging the endeavor may be, he never loses faith in my ability to succeed.

Enormous thanks to my advisor, Julia Byers for her continual cheerleading and optimism throughout the process. And to my committee members, Vivian Poey, and Daniel Serig, for their thoughtful insight, engaging conversation, and perseverance as they stuck with me through all that life threw at us. Thanks to all of the professors at Lesley University for welcoming me into this vibrant and creative community and for helping me to expand my thinking while exploring education and photography in new ways. To the students in my cohort, for taking this journey with me, your passion for education is inspiring.

Heartfelt thanks to my mentor, Kathy Miraglia, for always taking the time to help me in any endeavor I take on, and for always believing in me. Much gratitude to my writing collaborators, with our sheriff, Maureen Hall, for providing a positive space where we are all mutually valued, respected, and supported.

To the 100 high school photography teachers who participated in this study, thank you for being open and honest while being generous with your time and inviting me into your classrooms with open arms. Your work is incredibly important and I'm blessed to be a part of your continued success. And to my own students, without you this study would not have been possible. To my most unique student, Gustavo, who taught me more about life than I could have ever imagined possible. Thanks to all of my students, you motivate me to be a continual reflective practitioner and challenge me to be my very best self.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter One: Introduction

The purpose of this study is to explore the perspectives of high school photography teachers regarding visual literacy. This study aims to investigate the ways high school photography teachers conceptualize, perceive, and experience visual literacy in their own words. Effort was made to identify the shared conceptions as well as identify the differences in the ways high school photography teachers are expressing their understanding of visual literacy. Further inquiry addressed aspects of teacher training, influences on implementing and teaching visual literacy, and the ways high school photography teachers experience visual literacy as manifested in their classroom. The conceptualization of visual literacy as articulated by the National Art Education Association (NAEA) will be used to ground the data while comparing the perceptions of high school photography teachers with the published description (see Appendix A). The results of this study have the potential to impact the field of art education by offering recommendations on how to better develop teacher preparation, pedagogy, professional development, and related resources to assist teachers in the development of visual literacy.

Rationale and Significance

Trends in technology move rapidly in the social and educational world. Those born after the year 2000, commonly referred to as *digital natives* (Prensky, 2001) are believed to be technology savvy due to their interactions with digital technologies from an early age. These interactions happen through all aspects of our lives as technological advances become seamlessly integrated into our daily routines (Castro, 2012; Highfield & Leaver, 2016). As teens embrace this constant, instantaneous form of information (along with false information) and communication, educators are in a unique position to utilize the observable daily habits of teens as a way to provide learning opportunities beyond the confines of a traditional classroom setting

to create rich experiences integrated into student lives. Art educators teaching photography at the secondary level are posed with particular issues and concerns that are specific to utilizing photography as a tool for creative work. These educators face the challenge of teaching an art form that has never before been so accessible, relevant, and embedded in the daily lives of their students (Cress, 2013; Perkins, 2008).

With the rapid changes in photographic technology, educators are asked to teach students skills they can apply and adapt to any new situation as encountered. Teachers of photography use their own knowledge and skills to create learning experiences that are transferable where students are able to adapt in a rapidly changing world. An example of the relevance of technological integration in art classrooms across the country is the Art Education Technology (AET) Special Interest Group (SIG) of the National Art Education Association (NAEA), formed in 1995 and quickly grew to be the largest SIG in NAEA with 1,099 members as of November 2017 (R. Patton, personal communication, Nov. 19, 2017). The AET aims to "encourage and exchange knowledge and ideas related to new media technologies in the making of visual art, art teaching, and research in art education" (NAEA, 2017, Our Mission section, para. 1). Coupled with the inclusion of the Media Arts in the National Core Arts Standards (National Coalition for Core Arts Standards, 2014, Media Arts Standards) the field has seen a significant increase in the inclusion and professional development needs of art teachers integrating various technologies inspiring curriculum revision. To fill this need, art teachers are looking to Professional Learning Networks (PLN) for assistance as they have identified an overall lack of support for integrating technology and sharing of best practices in general.

In 2014, the National Art Education Association (NAEA) published the research agenda highlighting technology as a key area in need of further research. Additionally, through the newly

updated white paper, *Learning in a Visual Age* (2016) the NAEA stresses the importance of

educating for visual literacy as it pertains to "new thinking and learning skills of a digital age and

creative economy" (p. 12). Engaging in a new media environment challenges users to "explore,

discover, sample, collaborate, and – as a result of these new patterns of learning—sift value and

meaning from a glut of electronic information" (NAEA, 2016, p. 12). Teaching visual literacy

through photography can be applied through the acquisition of skills as outlined by the

Partnership for 21st Century Skills (P21) framework and the National Core Arts Standards

(NCAS). The P21, NCAS alignment emphasizes the importance of teaching 21st century skills:

creative problem solving, collaboration, and teamwork that are necessary in creative work

environments often dependent on digital technologies (Bilsborow, 2014).

In a time where crowd-sourced news photographs are becoming more and more popular,

it is important for art teachers to highlight the ways in which images are being both created and

read to convey meaning. Likewise, due to increased access to digital devices, in particular

mobile phones with embedded cameras, student interest in photography has increased (Baker,

2012). Images have the power to enhance argument and manipulate our senses, and to persuade

(Sherwin, 2008). The immediacy of access to images makes literacy a crucial life skill.

Given the increased access to both consume and create photographs, high school

photography teachers are in a unique position to assist students in developing and refining their

skills in visual literacy. Through applying associational logic in a constructivist manner, teachers

can facilitate learning experiences that allow students to access their subconscious and critically

assess the images' appeal to emotions in order to appropriate meaning from our culture at large

(Sherwin, 2008). To Sherwin (2008) "helping students become more visually literate is essential

to doing justice, and to the continued flourishing of participatory democracy in contemporary

society" (p. 192). High school photography teachers have an opportunity to address visual literacy as they empower and influence technology savvy, socially minded, continually connected teens who are consuming, creating and sharing images more than ever before. Through posting and consuming images, students are participating in an ongoing global conversation about topics that are meaningful to them personally, while posed with an opportunity to make an impact on the world. When preparing teens for life beyond high school, teachers have a profound commitment to assist students in becoming informed citizens who actively participate in forming the future of a global community.

In my experience teaching both high school and university students, I have noticed that students are giving less and less time to the scrutiny of images. I believe that due to an increase in accessibility to images via mobile devices, images are often scrolled through quickly as opposed to being analyzed to extract a thoughtful meaning or purpose of the work. I have witnessed, on a number of occasions, students glancing quickly, scrolling through an Instagram feed, perhaps spending a few seconds to read a short caption and then accepting their initial impression as truth or worse yet, not giving the image another thought. During a recent visit to a local art museum, I led a group of university students through the contemplative practice of *Lectio Divina* (Hamma, 2002) to engage with artwork. During this session, students expressed their gratitude as they were thankful to have had an opportunity to just look at an artwork, even if it was for a few brief minutes. They commented on how difficult it was to resist the urge to pick up their phone and scroll through their social media feed, and how they struggled to be still and focused, even just for a moment. Students confirmed that having an opportunity to engage with artwork enhanced their understanding of the piece, and that through the process they were able to extract a deeper level of meaning from the piece than they would if it appeared on a social media

feed. Additionally, they believed the corresponding group discussion helped them get to know each other and themselves more deeply, resulting in increased awareness of how others might understand their own creative work. This experience, coupled with my own experiences in social networked spaces have sparked the need to further investigate the ways in which visual literacy is being applied to art educational settings.

In 2017, a position statement created by the NAEA to address how visual literacy related to the Common Core curriculum implemented in many states was amended to address visual literacy more broadly within art education contexts (see Appendix A). Mirroring what I was experiencing in my own research, the current NAEA position statement indicates that visual literacy "focuses on close reading, logical evidence-based inferences, meaning-making through analysis and group discussions, and creating visual imagery" (NAEA, 2017, para. 1). The NAEA contends that "being visually literate is a critical factor for success in a society and helps us understand our world" (NAEA, 2017, para 2). To underscore their beliefs the NAEA has embedded these into the National Core Arts Standards (2014), which focus on creating, presenting, producing, responding and connecting to build literacy skills. In a comprehensive review of the literature regarding visual literacy in educational settings, it was clear that there is a severe lack of literature on visual literacy as it pertains to art education contexts. Through this review, I was able to find a good number of instructional resources available to assist in analyzing or responding to artworks but a lack of resources when it comes to assisting students in demonstrating visual literacy through creation of images. It is important to note, that in choosing to study visual literacy, specifically in high school photography classrooms, there is an assumption of privilege. I acknowledge that the literature reviewed came from academic journals and texts which fail to mention how visual literacy affects those without power or privilege and

focuses mainly on contexts that are studied in middle and upper-class areas. When discussing visual literacy through the lens of art education, the underlying assumption is that it is a privilege to have art education in schools. Specific to this study, high schools offering access to photography content as a way to teach visual literacy is certainly an even more privileged subgroup and therefore is not representative of the population as a whole. The position of high school photography teachers is especially ripe for study as a way to explore whether advances in access to mobile photography has the ability to democratize education through artmaking.

To date, there have been no formal studies that address the perspectives of photography teachers at the high school level in how they understand and/or implement visual literacy. My ongoing desire to study this topic is driven by the natural tendencies I observe in high school photography classrooms across the state where phoneography[1] and Instagram offer unique opportunities to assist students in communicating using visual images. Since teens are using phoneography and social media to relate to the world, I embrace the teaching of visual literacy to assist students in communicating in a global society. Ultimately, if students understand the nuances embedded within images, they can learn to apply such skills to visually communicate their own meaning.

Research Design

The purpose of this study is to investigate the perspectives of high school photography teachers pertaining to visual literacy. To that end, the following research questions have emerged:

- What are the perspectives of high school photography teachers regarding visual literacy?

- In what ways do high school photography teachers conceptualize, perceive, and experience visual literacy?

---

[1] Phoneography refers to the art of taking photographs using an Apple iPhone or similar device. It differs from other forms of mobile photography in that the images are taken, processed and shared using the single device (Oliver, 2015)

Exploring the perspectives of high school photography teachers revolving around understanding the particular points of view, attitudes toward, and how they regard visual literacy are of particular interest. Participants will be asked to about their perceptions surrounding visual literacy, to analyze whether they are aware or conscious of visual literacy in their current teaching contexts, express the ways in which they have to come to realize or understand visual literacy, and how they might interpret or perceive visual literacy. To achieve this, a qualitative methodology that uses a phenomenographic research design will be employed to gain understanding about the perspectives of high school photography teachers in their conceptualization, perceptions, and experiences surrounding visual literacy.

The goal of phenomenography is to explore the different ways in which people experience or think about a particular topic, experience or concept (i.e. visual literacy) (Richardson, 1999; Tight, 2016). Through the use of a survey/ questionnaire, discursive data were collected and coded to identify the similarities and differences in perspectives of high school photography teachers regarding visual literacy. Purposeful sampling was used to recruit high school photography teachers through the National Art Education Association virtual collaborative space (NAEA Collaborate) and corresponding listserv along with the popular professional learning network High School Photography Educators, High School Photography Teachers, as well as the NAEA Secondary Division Facebook Groups. Those engaged in these networks were asked to share the request with anyone they know who teaches high school photography. Participation in this study is completely voluntary.

Data were collected using a digital online survey/ questionnaire and follow-up interviews. The survey/ questionnaire included a variety of prompts using a Likert scale as well as open-ended prompts. The focus of the survey/ questionnaire was to gain an overall understanding of how high

school photography teachers perceive visual literacy. Participants were asked to complete a survey/ questionnaire indicating their pedagogical relationship to visual literacy. They were asked to rate importance using a Likert scale and provide rationale via open-ended prompts. Participants were also asked to indicate how they understand and perceive visual literacy as it is manifested in their classrooms.

The survey/ questionnaire included a prompt where participants voluntarily elected to be contacted for a follow-up interview. Five interview participants were purposefully selected from those who indicated willingness to participate via the survey/ questionnaire to ensure a range of perspectives are represented. The five teachers interviewed were chosen to represent a range in the total years they have spent teaching and teaching photography, their geographic location, and the amount of the students they serve who are living in poverty while spending 50% or more of their schedule teaching photography. The five teachers were contacted to schedule a mutually agreeable time to conduct the semi-structured interview. Interviews were conducted virtually (via phone or online video chat) as participants were likely to be located in geographically diverse areas. During the interview, participants were asked follow-up questions to assist the researcher understand how they perceive visual literacy and what might be the factors at play in forming their perceptions. Audio recordings of the interviews were used to assist in transcription. Seidman (2006) states that at the root of any interview is an interest in understanding the experiences of others and the meaning they make out of their experiences. The interview questions act as a follow-up to the survey/questionnaire prompts, and begin with questions aimed at understanding the participants' thinking and experience (Charmaz, 2014) regarding visual literacy, while probing questions will be used to glean greater detail and insight regarding their perspectives of visual literacy. Once transcribed, the data were coded to identify differences in perspectives regarding visual literacy. Data from the survey/questionnaire and interviews were compared and referenced for both similarities and

differences. *In vivo*[2] coding (Charmaz, 2014) was used to systematically code for recurring themes while continually referring back to the research question. This process of coding allows for data to be constantly compared while receiving analytic treatment through initial and focused rounds of coding. This coding process, employed by phenomenographers and grounded theorists alike, allows for the categories and themes to emerge from the comparisons within data itself, allowing themes to be discovered and refined against the participants discursive accounts (Richardson, 1999).

The potential impact of this study, as based on the perspectives of high school photography teachers, will greatly benefit the field of art education specifically as we look to prepare students for life in the visually rich and continually evolving 21st century. Through greater understanding of high school photography teachers' perspectives regarding visual literacy, this study can offer recommendations on how to better develop teacher preparation, pedagogy, professional development, and related resources to assist in teaching visual literacy.

Researcher Perspectives and Assumptions

During my thirteen years as a high school art teacher, I was able to spend 80% or more of my typical work day teaching photography as a stand-alone course. I was fortunate to have access to a working darkroom as well as ample computer labs for the entire duration of my career. Within this time, I had the opportunity to teach five distinct levels of photography culminating in a year-long Advanced Placement course where students completed two sets of images, one demonstrating breadth and the other a concentration based on a conceptual theme of the students own choosing. Early on in my career I was intrigued with the way my students interacted with visual culture yet seemed confused by contemporary artwork. Through

---

[2] *In vivo:* A term used to describe a coding technique used in qualitative research, where participants meanings and views are preserved by paying careful attention to how participants speech and meanings. *In vivo* codes assist in identifying commonly understood terms or points of view ultimately integrating theory that grounds the research (Charmaz, 2014).

identifying a need to assist students in active engagement of artworks, I created a photograph of the week learning activity which asked students not only to identify formal and technical qualities of the professional photographs I chose but to also attempt to make meaning of the images as based on their own personal experiences. Through a weekly collaborative discussion this process seemed worth the time and energy in facilitating class discussion around artworks. Through an action research study rooted in this process, I found that self-assessment of student's own work was more aligned with my own assessments and that students demonstrated greater ability to embed meaning and communicate visually when creating photographs. This photograph of the week process evolved as I evolved as a teacher to best meet the needs of the classes each semester.

My interest peaked as I observed my own students in a high school advanced photography course utilizing their smart phones to as a means of documentation and expression while sharing the images on Instagram. Compelled by their enthusiasm for using phoneography to create and share images, I conducted a study aimed to understand the ways in which high school students used smartphone technology to capture and share images via social media. The following themes emerged from the study: digital identity construction, image sharing vs. social media, the perception of public vs. private, image sharing as critique, and phoneography as visual communication (Oliver, 2015). A further action research study was conducted and concluded that the inclusion of phoneography and social media sharing proved effective as a tool for formative assessment while student work demonstrated an enhanced understanding of conceptual and thematic development. This study aimed to understand how the implementation of curricular interventions using phoneography would affect teaching and learning. The implementation consisted of a visual analysis exercise, a challenge to create thematic images

inspired by contemporary photographers using mobile devices to capture the image and post to Instagram using a specific hashtag, and class critique. This study was successful in furthering my understanding of teen interactions on social media platforms as well as their ability to transfer skills learned in class to create interesting images that effectively communicated thematic content to their peers. At the time, I was not articulating these studies or what I was doing in my classroom as ways to increase visual literacy. I now realize that visual literacy was the umbrella for all of this work; helping students become visually literate had been the goal all along.

In the context of this doctoral research study that explores the perspectives of high school photography teachers, my experience as a high school photography teacher is valuable. I see myself as both an insider and an outsider as I am able to relate to the experiences and perspectives of high school photography teachers and very much still confident in my role as a high school photography teacher although it has been four years since I have taught a high school course. As my career shifted and my focus became teaching art education at a state university, it certainly took some time to transition as these two identities overlapped. Looking at the position currently feels more like an empathetic outsider with excitement and deep interest in what is happening in high school photography classrooms across the globe. Even when I was teaching high school, I felt confident in my role as a researcher though I am aware that not all teachers feel they have these skills and may hold some bias against researchers as being out of touch with the realities they are studying. My years as a high school photography teacher may assist in bridging this gap and engaging participants on a collegial level.

In most public education settings, my experience of being able to spend the majority of my day teaching photography may not be the norm. It seems that with the growing number of computer labs available in schools and a steady influx of digital technologies, it may be that

teachers are able to spend the whole day teaching digitally based photography classes. For the purposes of this study, photography may be defined broadly to include traditional film-based models, digital technologies and photographic creation using mobile devices as such it does not distinguish between courses that are darkroom-based versus digitally-based as visual literacy can be applied to both types of courses. It has also been my experience that schools in more affluent geographical areas offer stand-alone photography courses and that not all students in public (or private) settings may have access to photography content within art education classes.

I hold a professional teaching license in visual art at the secondary level (grades five through twelve). When teaching in public schools in Massachusetts, the MA State Curriculum Frameworks for Visual Art indicate the required curriculum standards by providing content guidelines for teaching art (and photography as it falls under visual art). After implementing a new statewide teacher evaluation model in 2011, ESE brought groups of teachers together to design Core Course Objectives (CCOs) aimed at identifying the highest priority objectives. With the acknowledgement that teachers were unable to cover all of the standards in the duration of one course under varying schedule constraints, the CCOs aimed to highlight those of greatest importance, written as objectives to assist teachers in creating consistent and measurable assessments (referred to as District Determined Measures or DDMs), a key component of the educator evaluation model. In addition to the arts, ESE created objectives for both Ceramics and Photography based on the number of schools in MA who offered these courses in addition to general art offerings. I was invited to participate in the creation of the CCOs for photography and the group ended up creating seven CCOs for photography. The very first task we were asked to tackle was to look through a variety of materials and prioritize which anchor standards were most important to us. After recently reviewing my form, I listed visual literacy as the most

important. CCO #5 addresses visual literacy specifically though upon closer investigation, it neglects to address the creation of photographs. This is consistent with the other tools I found when reviewing the literature and like most other standards focuses on decoding the work of others. In this case, the CCOs were aligned with the 1999 MA Curriculum Frameworks and were adjusted for consistency. As I write this dissertation, a group of art teachers is currently working to update the MA state standards in visual art and also to create standards in Media Arts which will be a first for MA. It remains to be seen how visual literacy will be reflected in the new document, if included at all. Although the CCO writing group looked at standards from other states in relation to our work, I am not familiar with state curriculum requirements in other states and countries. It has been my experience that photography teachers use state and national standards in visual art. I was not aware that of the Association of College & Research Libraries (ACRL) Visual Literacy Competency Standards for Higher Education (2011) existed until I began teaching at the university. These are the only guidelines I was able to find that address visual literacy. Though written for higher education settings, I believe they provide a resource for high school teachers who might be interested in including visual literacy in their classrooms. The ACRL standards are the only document I found that includes the creation of meaningful images in addition to decoding images created by others.

The literature on visual literacy is primarily found in academic journals and texts which, in most cases, fail to mention how visual literacy affects those without power or privilege and focuses mainly on contexts that are studied in middle and upper-class areas. Discussing visual literacy through the context of art education, the assumption is that it is a privilege to have art education in schools and therefore is not representative of the population as a whole. Although research shows that the arts are the greatest benefit for learners in the least privileged

communities, access to the arts in public schools are in a state of continued decline, particularly those with at-risk populations (Bowen, Green & Kidida, 2014; Caterall, Dumais & Hampden-Thompson, 2012; Wager, Poey & Berriz, 2017). Through art education, we have a unique opportunity to assist in teaching visual literacy as it will assist all students in becoming productive global citizens.

Definitions of Key Terms

Visual Literacy

Though the term *visual literacy* was first credited to John Debes, the co-founder of the International Visual Literacy Association, the term has been used intermittently in a variety of contexts for over a hundred and fifty years (Elkins, 2008; Emanuel & Challons-Lipton, 2013). In the 1960s, Debes offered the initial definition as "visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences" (Emanuel & Challons-Lipton, 2013, p.8). The definitions and applications have evolved to meet the needs of a growing global society whose methods of communication are increasingly visual. Since this study is rooted in the field of art education, the definition as provided by the National Art Education Association will be adopted. The NAEA defines visual literacy as:

> the ability to interpret, comprehend, appreciate, use and create visual media, using conventional as well as contemporary and emerging media, in ways that advance thinking, decision-making, communicating, and learning (NAEA, 2017, para 2).

Phenomenography

As a research design, *phenomenography* is "an innovative research design, which aims at identifying and interrogating the range of different ways in which people perceive or experience

specific phenomena" (Tight, 2016, p. 319). It is described as an "empirically based approach that aims to identify the qualitatively different ways in which different people experience, conceptualize, perceive, and understand various kinds of phenomena" (Richardson, 1999, p. 53).

Phoneography

The term *phoneography* is defined as the art of taking photographs using mobile devices most commonly through the Apple iPhone (as in iPhoneography). It differs from other forms of mobile/digital photography in that the images are taken and processed using a single digital device. In most cases the images are also published or shared using the device itself (Lee, 2010; Oliver, 2015). As a tool, mobile devices have increased accessibility to photography in a way that no other camera has. As a socio-technological network, the camera phone is referred to as the fifth movement in photographic history. As such it is thought to have democratized photographic process providing affordability (as compared to costs of film and developing) and global accessibility (Cruz & Meyer, 2012).

Chapter 2: Literature Review

Conceptual Framework

This literature review explores visual literacy and its possible applications in art education settings. I approach the topic by summarizing the ways in which visual literacy has been defined and redefined over time. From there, pedagogical applications of visual literacy and notable assessment strategies are described. Although visual literacy is applied to a wide variety of disciplines, this paper specifically looks at visual literacy as it relates to learning taxonomies as applied to art education contexts. Looking at the literature this way allows me to understand the contexts in which visual literacy is utilized in a variety of settings while focusing on how it may be applied in art education settings. The result is useful to art education scholars as well as those working in the field because it provides a theoretical basis and support for implementing visual literacy into classrooms. It is important to note, however, that in this review of visual literacy there is an assumption of privilege. I acknowledge that the information discussed in this review came from academic journals and texts which, in most cases, fail to mention how visual literacy affects those without power or privilege and focuses mainly on contexts that are studied in middle and upper class areas. Through art education, we have a unique opportunity to assist in teaching visual literacy as it will assist all students in becoming productive global citizens. This paper aims to provide insight on what might be missing from the literature in attempt to clarify where further research is needed.

Scholars agree that "we have entered a new cultural era where visual technologies, as much as the technology of visualization itself, have reached deep into our everyday lives" (Dallow, 2008, p. 91). Living within an image-centered visual culture, our everyday space, interactions, workplace, and social activities are connected in and through technology (Dallow,

2008) making human perception and cognition must rapidly adjust to meet the needs of an ever changing technological, communication based world (Sherwin, 2008). "Visual images are becoming the predominant form of communication across a range of learning and teaching resources, delivered across a range of media and formats" (Bamford, 2003, p.2). Often, we perceive that "image is more important than words; our brains will retain the impressions more than what is said, so image control is paramount" (Baker, 2012, p. 55). To address the bombardment of visual stimuli in our daily lives educators look to visual literacy as it "allows a person to be able to discriminate and interpret visual actions, objects, symbols that they encounter in the world" (Bamford, 2003, p.2).

The Evolving Definition of Visual Literacy

Though the term visual literacy was first credited to John Debes, the co-founder of the International Visual Literacy Association, the term has been used intermittently in a variety of contexts for over a hundred and fifty years (Elkins, 2008; Emanuel & Challons-Lipton, 2013). In the 1960s, Debes offered the initial definition as "visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences" (Emanuel & Challons-Lipton, 2013, p.8). Evolving continually over time, the definitions and applications have evolved to meet the needs of a growing global society whose methods of communication are increasingly visual.

In the 1990s, Braden defined visual literacy as "the ability to understand and use images, including the ability to think, learn, and express oneself in terms of images" (Emanuel & Challons-Lipton, 2013, p.8). During this time, other notable scholars such as Firestone and Hobbs expand the definition to include the ability to assess, analyze, evaluate and communicate through images (Emanuel & Challons-Lipton, 2013). Dr. Anne Bamford (2003), Director of

Visual Arts at the University of Technology in Sydney Australia and author of the *Visual Literacy White Paper* describes visual communication as the "process of sending and receiving messages using images" (p.1) with visual literacy described as the ability to "construct meaning from visual images" (p.1). This white paper stresses the importance of both learning to intentionally interpret and produce images that communicate with audiences. Bamford (2003) contends that a visually literate person can read and write visual language which includes the ability to "successfully decode and interpret visual messages and to encode and compose meaningful visual communications" (p.1). This includes understanding the social impact of images, how they are intended to manipulate audiences and making informed judgements of the accuracy, validity and worth of images (Bamford, 2003). Bamford (2003) also suggests that in order to be an "effective communicator in today's world, a person needs to be able to interpret, create and select images to convey a range of meanings" (p.1) which emphasizes the importance of curation to visual literacy.

In 2006, Burns indicated that visual literacy must include the ability to decode, comprehend and analyze images in order to construct meaning (Emanuel & Challons-Lipton, 2013). In agreeance, Yeh emphasized that visual literacy is learned knowledge and skills that are then applied to help students understand, interpret, and analyze visual messages which would also allow them to then create and encode images (Emanuel & Challons-Lipton, 2013). It wasn't until Avgerinou (2011) began to identify points of cohesion within the varied definitions to find scholars agree that visual literacy is a cognitive ability (Emanuel & Challons-Lipton, 2013). Avgerinou (2007) proposed eleven visual literacy abilities that are most pertinent to the visual literacy index (a tool created to measure visual literacy abilities): visualization, critical viewing, visual reasoning, visual discrimination, visual thinking, visual association, visual reconstruction,

constructing meaning, knowledge of visual vocabulary and definitions, and knowledge of visual conventions. Once applied, the visual literacy index measured abilities and led the field toward a definition and measurement that could be applied to future studies, with the most significant limitation being that the index does not measure the ability of participants to create or encode images (Avgerinou, 2007).

Stafford (2008) suggests that visual literacy is a "temporal construct, rising or falling with the cultural and scientific assumptions and values of a given period" (p. 32). Considering both artistic and scientific standpoints, Stafford (2008) believes that imagery "elicits perceptual, cognitive, and even bodily motion… in the observer" (p. 38) leading to moments of recognition, discovery, and meaning making. While Elkins (2008) poses we do not "read" images, rather, visual literacy is a much more multifaceted concept including aspects of visual competence, competencies, practice, and languages. Mitchell (2008) provides an alternate view, describing how we must learn to speak a language before we can read it and that reading in the traditional sense is already a visual skill. Mitchell (2008) pulls from the notion of visual competence as a baseline skill, upon which we would use visual literacy to describe the heightened "rich, highly cultivated, and trained experiences and techniques of visual observation" (p. 14). What Mitchell (2008) begins to highlight here is the notion of training which implies that visual literacy is a learned skill and therefore can be taught.

Braden and Hortin describe two aspects of visual literacy: the ability to understand images, and the ability to use them (Dallow, 2008). In agreement, Ann Marie Barry explains that visual intelligence is achieved when an awareness of logic, emotion and attitudes are identified as suggested in various visual imagery (Dallow, 2008). While noted scholars Baldessari, Rashid

and Wong describe visual literacy as "understanding how people perceive objects, interpret what they see, and what they learn from them" (Elkins, 2008, p. 2).

Dallow (2008) discusses the difficulty with visual literacy in that it is not well articulated by scholars and has no single fixed definition and that notions of literacy are socially constructed making the definition more fluid and situational in nature. Dallow (2008) contends that the shifts in the broader definition of literacy along with corresponding standards and objectives to describe the competencies needed for achieving literacy making it a definition that will continue to shift as societal needs continue to evolve. Additionally, it is important to note that race, class, ethnicity, and gender play a crucial role in literacy as well as our own notions of what it means to be literate (Dallow, 2008).

Avgerinou & Patterson (2011) agree that any cohesive definition of visual literary is still in its infancy though through their conceptualization, visual literacy includes aspects of visual perception, visual language, visual thinking and visual communication (Avgerinou & Patterson, 2011; Emanuel & Challons-Lipton, 2013). They believe that lack of an unanimously agreed upon definition has been counterproductive to generating a field of research specifically addressing visual literacy (Avgerinou & Patterson, 2011). However, this lack of uniformity encourages visual literacy to continue as a multidisciplinary and multidimensional field which can be an asset as it draws from many strong conceptual frameworks and can be applied across diverse educational settings (Avgerinou & Patterson, 2011). In regards to visual language, Avgerinou & Patterson (2011) assert visual language exists, it is holistic, it must be learned, it may improve learning, it is not universal and it often needs verbal support. This framework defines visual literacy as the "ability to interpret visual messages accurately and to create such messages" (Avgerinou & Patterson, 2011, p. 6), with an operational definition as "a group of largely

acquired abilities, i.e., the abilities to understand (read), and use (write) images, as well as to think and learn in terms of images" (Avgerinou & Patterson, 2011, p. 7). This description and corresponding statement that visual literacy can be learned, implying that it can also be taught leads us to explore how standards and competencies in visual literacy are articulated.

Visual Literacy Standards and Competencies

In 2011, the Association of College and Research Libraries (ACRL), a division of the American Library Association created the Visual Literacy Competency Standards for Higher Education (ACRL, 2011). ACRL believes that these essential skills must be developed to engage in a visually-oriented society. As such, ACRL defines visual literacy as "a set of abilities that enables an individual to effectively find, interpret, evaluate, use, and create images and visual media" (ACRL, 2011). Using the standards in an interdisciplinary, higher education setting, a visually literate student is able to:

• Determine the nature and extent of the visual materials needed

• Find and access needed images and visual media effectively and efficiently

• Interpret and analyze the meanings of images and visual media

• Evaluate images and their sources

• Use images and visual media effectively

• Design and create meaningful images and visual media

• Understand many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and access and use visual materials ethically (ACRL, 2011).

The standards were intended to be used as a whole or in part as needed but are described as linear in nature to be tackled collaboratively by those interested in assisting students gain visual literacy skills (ACRL, 2011).

Similarly, Vermeersch & Vandenbroucke (2015) suggest visual literacy competencies include understanding and using images, thinking and learning in terms of images, expressing oneself, analyzing syntax, obtaining and constructing meaning from and with visual information. Based on these competencies, semiotics, and Avgerinou's (2007) index, Vermeersch & Vandenbroucke (2015) created a framework for visual literacy (see Appendix B) that flows from basic skills to higher order skills while emphasizing teaching of both visual analysis and perception and production skills. Unlike ACRL's standards, this framework is not linear and can be built upon and revisited to enhance skills and understandings (Vermeersch & Vandenbroucke, 2015).

In my experience teaching high school photography courses, I utilized various techniques in attempt to teach visual literacy, whether I was identifying it as such or merely addressing student needs, modifications were implemented accordingly. In an attempt to assist students in extracting meaning from photographs specifically, I used a photograph of the week format (for prompts see Appendix C) that included prompts inspired by various models (Feldman, 1970/1992, Yenawine, 2003/2014). I found it essential that students not only be able to decode or read images, but also use their knowledge of how images communicate to create their own work. In an action research study I conducted in a high school photography classroom, I found that after students engaged with the photograph of the week exercises they were able transfer their acquired visual literacy skills to their own creative work. They were able to articulate their intentions more clearly, and provided thoughtful justifications for the choices they made

throughout the creative process in comparison to the control group. My ongoing work with high school photography students and teachers aims to further explore how teachers understand visual literacy in attempt to identify what their needs are, and what is working as we assist students with the visual literacy skills needed to be productive citizens in a digitally driven global visual culture.

Professional Associations

The International Visual Literacy Association (IVLA) was founded in 1968 when a group of likeminded scholars interested in visuals in education met in Rochester, New York to plan a conference focused on visual literacy (IVLA, 2017). Due to the success and excitement sparked by the conference, the association also published a newsletter several times during each year along with "Selected Readings" from the conference proceedings. Expanding out of the United States, conferences and symposia have been held in Sweden, Greece, England, Canada and the Netherlands. The most notable publication of the IVLA is the *Journal of Visual Literacy* (JVL), which is a juried collection of research papers focused on visual literacy. The IVLA defines visual literacy as:

> Visual Literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication. (IVLA, 2017, n.p.)

Another professional association mirroring these beliefs is the National Art Education Association. As a leading force in the field of art education, along with thousands of art teachers across the country, I look to the NAEA for guidance. In 2014, NAEA created a position statement in response to visual literacy being related to the new Common Core curriculum documents implemented in many states. In 2017, that position statement was amended to address visual literacy more broadly within art education contexts specifically. Mirroring what I was experiencing in my classroom, the current statement indicates that visual literacy "focuses on close reading, logical evidence-based inferences, meaning-making through analysis and group discussions, and creating visual imagery" (NAEA, 2017, para. 1). The position statement defines visual literacy as:

> the ability to interpret, comprehend, appreciate, use and create visual media, using
> conventional as well as contemporary and emerging media, in ways that advance
> thinking, decision-making, communicating, and learning (NAEA, 2017, para 2).

The NAEA contends that "being visually literate is a critical factor for success in a society and helps us understand our world" (NAEA, 2017, para 2). To underscore their beliefs the NAEA has embedded these into the National Core Arts Standards (2014) which focus on creating, presenting, producing, responding and connecting to build literacy skills. The association has also created a number of model cornerstone assessments to assist teachers with assessing these new standards. To date, there are not any cornerstone assessments that address visual literacy or photography directly, only as embedded within the standards themselves and as applied to traditional fine art media.

In addition to the ACRL Standards for Visual Literacy, the The Mid-Continent Research for Education and Learning Corporation (McREL) Language Arts Viewing Standards, the

National Council of Teachers of English (NCTE), the National Core Arts Standards for Visual

Art as well as the Common Core standards include using skills in viewing to interpret meaning in

visual images (Baker, 2012). The National Core Arts Standards also include creating artwork that

expresses emotion and meaning. In alignment, Bamford (2003) proposes that in order to be

visually literate a person should be able to:

- Understand the subject matter of images;

- Analyse and interpret images to gain meaning within the cultural context the

  image was created and exists;

- Analyse the syntax of images including style and composition;

- Analyse the techniques used to produce the image;

- Evaluate the aesthetic merit of the work;

- Evaluate the merit of the work in terms of purpose and audience; and

- Grasp the synergy, interaction, innovation, affective impact and/ or 'feel' of an

  image (Bamford, 2003, p.1)

Having standards accessible to teachers as endorsed by professional associations are helpful

when supporting the argument that visual literacy be included in visual arts curriculum. If the

standards are clear and assessable teachers are likely to implement them into daily routines.

Teaching Visual Literacy: Pedagogical Issues and Approaches

A number of scholars believe that lower order visual literacy skills may develop

automatically without any teaching involved (Bamford, 2003; Mitchell, 2008; Vermeersch &

Vandenbroucke, 2015). In contrast, many scholars believe that visual literacy requires a

conscious learning effort with direct instruction from an educator (Bamford, 2003; Mitchell

2008; Vermeersch & Vandenbroucke, 2015). Avgerinou & Patterson (2011) contest that visual

literacy is a cognitive ability that draws on the affective domain involving "critical viewing and thinking, imaging, visualizing, inferring as well as constructing meaning" (p. 8) while also considering feelings and attitudes. Researchers focused on child development agree that visual communication skills are essential and develop earlier than verbal skills while emphasizing visual literacy skills are learnable, teachable and capable of development and improvement (Avgerinou & Patterson, 2011). Avgerinou & Patterson (2011) contend that visual literacy abilities include decoding images, encode while creating images, and the ability to think visually.

Simons (2008) describes his understanding of Elkins desire for a pedagogy of visual literacy as one that focuses on the formation of students as "astute, fascinated scholars of the visual aspects of the world in which they live" (p. 87), however, Simons (2008) believes that we must include "art history, science images, image-making skills, and non-Western images" (p.87) to truly reach the conclusion that there is not a general visual literacy. Dallow (2008) explains Baudelaire's view that since the advent of photography there is a critical capacity for an increased awareness of how entrenched imaging is in our daily lives, across all disciplines. Baudelaire calls for what he describes as *visualization of knowledge,* as a total increase of critical visual literacy as integral to the "functioning of all advanced professional activities, and hence is relevant to the curricula of all university teaching programs" (Dallow, 2008, p. 94). In agreement, Santas and Eaker (2009) propose a taxonomy of training to provide a usable framework for connecting training, critical thinking and visual literacy. They suggest that cultural capital has a direct impact on meaning making and look to the work of John Dewey (1980) to support the belief that human activity is influenced by prior activity and experiences that shape the way we understand the world. Avgerinou & Patterson (2011) believe that although some symbols and images are universal, visual literacy is culturally specific as images are best

understood within our own frame of reference. It is important to point out that in the review of the literature on visual literacy, specifically as it relates to educational settings, there is no mention of the importance of including a diverse range of images and artists. Given the belief that our understandings of images are framed within our own experiences and capital (Avgerinou & Patterson, 2011) there is a direct need for research and literature that addresses the relationship of culturally responsive and inclusive pedagogy to students acquisition of visual literacy skills.

Santas and Eaker (2009) suggest that through readjusting our thinking habits we can make deep looking a natural part of our daily practice and navigating our social world with a sophisticated and critical eye. To educate for visual literacy, a focus needs to be on building mindful looking, making this form of critical looking a habit (Santas & Eaker, 2009). Emanuel & Challons-Lipton (2013) state that visual literacy is a learned skill, and one becomes visually literate by:

studying the techniques used to create images, learning the vocabulary of shapes and colors, identifying the characteristics of an image that give it meaning, and developing the cognitive skills necessary to interpret or create the ideas that inform an image. (p.12) Simons (2008) suggests that visual literacy then is a transferrable skill, one that can be applied to a variety of disciplines and settings as a manner of seeing and interacting with the world. As a transferrable skill, this would be desirable to potential employers, through visual literacy, our students would learn to be flexible, creative, independent, and be able to show self-discipline, self-direction and reflexivity (Simons, 2008). To Simons (2008) "visual literacy is an aspect of an education that encourages students to attend to the world around them, to wonder in its details and in its patterns" (p. 87). He believes that he world would be a richer place if people took the time and had the skills to truly wonder in it (Simons, 2008).

Bamford (2003) suggests that being visually literate includes a combination of understanding and applying both syntax and semantics to visual images. In this theory, syntax is described as the form or building blocks of an image including compositional concepts and the elements and principles of design (Bamford, 2003). Semantics refers to "the way images relate more broadly to the issues in the world to gain meaning" (Bamford, 2003, p.4). To help students understand the semantics of an image, Bamford (2003) suggests an inquiry based model using the following as prompts:

- Who created the image?

- At what point of history and in what context was the image created?

- Who commissioned the image?

- For what purpose was the image created?

- In what context is the image being seen?

- Who is the intended audience of the image?

- In what form(s) of media will the image be seen?

- What has been omitted, altered or included in the image?

- What does the image say about our history?

- What does the image communicate about our individual or national identity?

- What does the image say about society?

- What does the image say about an event?

- What aspects of culture is an image communicating? (Bamford, 2003, p.4)

Bamford (2003) believes that visual literacy is a social practice, focused on the study of "beliefs, values and purposes for why you might want to read something or communicate" (p. 4).

As noted in the *Visual Literacy White Paper*, "higher order visual literacy skills do not develop unless they are taught" (Bamford, 2003, p. 5) emphasizing the importance of including visual literacy as an integral component of educational settings. Bamford (2003) goes on to describe that the teaching implications of visual literacy need to:

- Develop critical thinking skills in relation to visual images;

- Enhance verbal and written literacy skills and vocabulary to be able to talk and write about images;

- Introduce image production, manipulation techniques and software to children at an early stage;

- Integrate visual literacy across all curriculum areas;

- Ensure there is a balance between visual and textual literacies in the classroom;

- Be aware of visual literacy principles in the design for teaching and learning objects;

- Pose questions about images;

- Encourage students to look at underlying assumptions that are embedded in the images surrounding young people;

- Encourage students to critically investigate images and to analyse and evaluate the values inherently contained in images (Bamford, 2003, p. 5)

Bamford (2003) suggests the table (See Appendix D) as useful for teachers when facilitating discussions about images. Bamford (2003) promotes that teachers should expose students to thought-provoking images, and engage students through meaningful questioning and collaborative discussion.

The suggestions and procedure proposed by Bamford (2003) are in agreement with the photograph of the week process and collaborative discussions I have applied in my own teaching. As mentioned previously, I found this method to be helpful to students overall in their reading of images while also assisting in their ability to become successful communicators enhancing their overall visual literacy. Anecdotally, I have had students who have graduated from high school and gone on to pursue art majors in higher education settings, describe that they felt very confident discussing their work and the work of their peers during class critiques due to the photograph of the week discussions. They continued to indicate that their work beyond high school was layered with personal meaning more deeply than many of their peers. Since exploring the photograph of the week exercises, I have pursued other forms of engagement strategies that have been used by others with success. A selection of pedagogical strategies is discussed further as directly related to visual literacy including: Visual Thinking Strategies (VTS), formal artistic analysis, library of Congress, and Aperture On Sight. Each of these strategies tackles engagement with images in varying contexts. For example, VTS is often applied in museum settings, where formal analysis is used primarily in academic settings, the library of congress is applied to popular, archival, or journalistic images and On Sight specifically to photographs as a form of art. The distinction here being that these strategies don't differentiate in the ways they are applied to either an image or an artwork. To be visually literate would undoubtedly cover all of these contexts, with skills that transfer and adapt to the situation in which the viewer is encountering the image or work of art. With each of these strategies having a distinct audience and context, there is not a strategy that is without its strengths and weaknesses as applied, however, each focuses on a specific type of literacy outcome worthwhile of mention here. As art teachers

navigate diverse images in their curriculum, these strategies may provide a useful tool as they can be modified and used as needed to best fit teaching context and desired learning outcomes.

Example: Visual Thinking Strategies (VTS)

Visual Thinking Strategies (VTS) was conceived by co-founders museum educator Philip Yenawine and psychologist Dr. Abigail Housen as Visual Understanding in Education (VUE). Now VTS, this widely used instructional approach was influenced by the work of Rudolf Arnheim, Jean Piaget and Lev Vygotsky (Shifrin, 2008). Simply stated, visual thinking strategies is an inquiry technique whereby the teacher/docent/educator takes the role of facilitator by choosing an appropriate image or artifact that links to your specific curricular goals (Yenawine, 2003). Then, allow a few moments for students to silently study the image before beginning a group discussion (Yenawine, 2014). The facilitator then poses the following questions:

- What's going on in this picture?

- What do you see that makes you say that?

- What more can we find? (Yenawine, 2014, p. 25)

The teacher continues by listening to the students, pointing out pertinent points, paraphrases student comments, links related comments and content, builds on ideas, remains neutral and responds to each comment encouraging everyone to share, and thanking students for their collective participation (Yenawine, 2014). The questions can be modified to fit any subject area and teachers are encouraged to use follow-up questions to guide student knowledge toward the goals and objectives of the curricular unit. VTS is well-documented by numerous research studies implemented in a variety of educational and museum contexts.

Rooted in inquiry, VTS allows for sustained investigation of objects to generate discussion, imagination, the creation of narratives and increased student engagement (Church,

Morrison, & Ritchart, 2011). In my experience, VTS is easily aligned to the backwards design

model for developing curriculum, essential and guiding questions were incorporated to create

meaningful connections to intended learning outcomes. I have found that collaborative analysis

through VTS strategies paired with discussion helps students pinpoint how their own lived

experiences influence the ways they read the images and enhanced their overall comprehension

of the image and its influence in a greater world context. After a VTS session, one University art

education student stated that viewing the work in this way was like having a dialogue with

yourself and the piece simultaneously, providing an opportunity to use personal connections and

perceptions to experience something entirely new. Students agreed that the sessions allowed

them to contemplate and comprehend other perspectives and critiques by thinking about them in

ways they wouldn't otherwise, offering opportunities to expand their realm of thinking and

understanding. One student connected the rituals to his own creative work, stating that "as an

artist it not only helps in viewing other work but would help in viewing my own and would also

make me wonder what others would see in my work," prompting him to want to hone his skills

in visual communication. Unanimously, students agreed that implementing VTS and art analysis

as rituals to promote mindful seeing would benefit their future teaching practice by offering them

a way to practice visual communication (Figure 1).

Figure 1: Preservice Teachers Facilitating VTS. Art Education Students from the University of Massachusetts Dartmouth facilitating VTS at the New Bedford Art Museum/ArtWorks!, 2018.

Example: Formal Artistic Analysis

Many of the processes described to engage students with visual literacy are rooted in inquiry with teacher in the role of facilitator of learning. Similar to the formal method of visual analysis, this process begins by asking students to *describe* what they see (Feldman 1992, 1970). At this step of the process, it is important to refocus student responses and attention to what they can observe before moving to the next step in the process, most of the time, the conversation naturally flows from step to step based on responses and educator prompts. Next, students are asked to *analyze* the formal elements by identifying how the elements and principles of design are used to organize the work and how the materials and techniques are used to create the work. This leads into the *interpretation* phase where students are asked to decipher what the artist is trying to communicate based on the information they have gathered in previous steps. *Context* is then used to support the interpretations by providing any information about the artist, time

period, historical movement, or any pertinent information that might assist the students in reading the subtle clues embedded within the piece. Finally, students are asked to *judge* if the work is successful in communicating the artists' intent, if it has value and to support or debate their views. These techniques are particularly helpful for K-12 art educators who may be teaching a single lesson that encompasses instruction in artistic skill, art historical context, and how to communicate big ideas in visual form (Feldman 1992, 1970).

Example: Library of Congress

The library of Congress created resources and 'visual literacy exercises' to help visitors read and understand pictures. The exercises use a three-step process aimed to help viewers recognize content, consider the intent of the image creators and explore the ways the production techniques aid in the role of visual expression. It encourages awareness of our own assumptions and asks the viewer to consider what is depicted in comparison to what the caption states (Zinkham, 2004). The exercise asks the viewer to find a picture that is interesting to the viewer and observe it for two minutes by noting the first impression, taking inventory of what can be identified in the image and then look at each part of the picture again. The second step asks the viewer to write a narrative caption about what you think the picture means while considering any available information about the image. The third step is to finalize the caption by verifying the information sources and sharing with others for feedback (Zinkham, 2004).

Example: Aperture On Sight

The On Sight program created by the Aperture Foundation aims to provide a curriculum for teaching visual literacy through photography. The program describes visual literacy as "a set of skills that allows us to construct meaning out of visual information" (Aperture Foundation, 2017). The On Sight program focuses on building student ability to communicate as visual

storytellers, while promoting creative and critical thinking. The twenty lesson plans are rooted in the equation: form + content + context = meaning and build from basic skills to visual metaphor. After the program administrators hosted a session at the recent National Art Education Association Annual Convention in New York, NY in March of 2017, session attendees (mainly high school photography teachers) raved about this new resource and it has been mentioned on the High School Photography Educators facebook group 12 times (as of June 2018) directly since the presentation all in a positive light.

Praxis: North American Secondary Schools

The inclusion of visual literacy in state and national standards has been at the heart of the debate about what constitutes visual literacy for the past thirty years (Shifrin, 2008). Advocates for inclusion of visual literacy in such standards see visual literacy as a "set of skills and aptitudes that enables the literate student to access, analyze, evaluate and communicate messages in a wide variety of forms" (Shifrin, 2008, p. 106). Supported by Gardner's (2011) the theory of multiple intelligences which suggests that meaningful connections are made through a variety of texts (visual, verbal, and multimedia) for a strong semiotic understanding (Shifrin, 2008). Additionally, scholars believe that visual literacy uses similar competencies with other types of literacy including decoding and comprehension (Shifrin, 2008). This view includes deciphering, comprehending, and interpreting images to critically evaluate message the images are attempting to communicate this concept is also referred to as decoding (Shifrin, 2008). Hobbs (2005) describes a new vision of literacy where students employ critical skills to transfer knowledge, broadening their understanding of themselves and themselves thus exploring the assumptions we take for granted and possible action for transforming our collective thinking (Shifrin, 2008).

California, at the earliest formal implementation, created a collaborative listening and viewing guide in the 90s, support inquiry-based pedagogy and VTS. California has defined visual literacy or media literacy as "the development of skills through the processes of listening, speaking, reading, writing and viewing [that] lead to higher order thinking and problem solving" (Shifrin, 2008, p. 113). Massachusetts has contributed important work between the Museum of Fine Arts and the Boston Public Schools who used VUE in 1996 with their program called "thinking through art' which documented outcomes that included seeing the museum as a useful and interesting place and increased teachers and student capacities to integrate art in more meaningful and through broader contexts. Currently, VTS is widely used across the state and notably, the Isabella Stewart Gardner Museum longitudinal has contributed to the body of published research supporting the inclusion of VTS in museum settings to increase visual literacy skills.

Other states such as Minnesota also widely employ VTS reported ease of curricular scaffolding and increased collective understanding as highlights of such implementation (Shifrin, 2008). Constructivist in nature, inquiry based visual literacy programs in New York aim to develop a critical understanding of photographic and video images that are constructed to communicate. Ohio has a longstanding history of visual literacy initiatives implemented in elementary and middle schools created on the belief that visual literacy breaks the language barrier focusing on an international communication tool where students encompass the ability to read and comprehend images as well as create their own work (Shifrin, 2008).

Measuring Visual Literacy

Assessments in visual literacy seem to focus on whether or not the general public can identify artworks, logos and other visual symbols used in communication design. The research

based literature offers no consistent implementation of assessments and most studies employ very small samples of the population (Emanuel & Challons-Lipton, 2013). In 1986, the Museum of Modern Art in New York City developed a survey to assess what 150 visitors knew about modern art (Emanuel & Challons-Lipton, 2013). The findings suggested that the visitors only recognized artwork made by prominent artists, did not understand what it meant to describe artwork, often misused visual art vocabulary, and had little to say about the meaning or intent of the work (Emanuel & Challons-Lipton, 2013). The researchers were not surprised by these results and emphasized the correlation of the results to the marginal role visual literacy plays in our education systems (Emanuel & Challons-Lipton, 2013). They "contend that the entire education system needs to be revamped to emphasize visual education, from kindergarten to college" (Emanuel & Challons-Lipton, 2013, p. 13). Brumberger (2011) describes a measure of visual literacy aiming to assess student ability to:

- Detect if a photograph had been altered

- Identify when and where a photograph was taken

- Correctly assess the tone or mood of the photograph when given four moods from which to choose (Emanuel & Challons-Lipton, 2013, p.14).

Brumberger's (2011) measure as described above is consistent with the analyzing phase of Bloom's taxonomy, which is a higher level than naming or recognizing but does not employ top-tier cognition such as creating (Emanuel & Challons-Lipton, 2013). In a study conducted by Emanuel & Challons-Lipton (2013), they built upon Brumberger's (2011) study aiming to understand the extent college students are able to accurately recognize and interpret generally well-known images (Emanuel & Challons-Lipton, 2013). This study asked participants to identify photographs, logos/ symbols and famous artworks (Emanuel & Challons-Lipton, 2013).

Findings suggest that in terms of recognition, responses confirmed that today's students know is narrowly confined to their own generation and experiences, with the most recognized images including the Facebook symbol and the twin towers, with the Facebook symbol the most recognized and correctly identified image overall (all participants correctly identified the Facebook symbol) (Emanuel & Challons-Lipton, 2013). Ultimately, students were most adept at identifying photographs and least adept at identifying paintings and were much more accurate when identifying contemporary images (Emanuel & Challons-Lipton, 2013). Emanuel & Challons-Lipton (2013) suggest that "as consumers and creators of the visual future, educators have a special and urgent challenge to transform lazy looking into visual proficiency" (p.18) which includes a visual language and appropriate vocabulary to effectively communicate and express one's own meanings (Emanuel & Challons-Lipton, 2013; Vermeersch & Vandenbroucke, 2015).

It is evident that there is much work to be done on how to best measure visual literacy. The studies that have been published access small sample sets and primarily focus on how people identify information when presented in visual form such as logos and wayfinding. There is no mention of applied skills or of how to measure how well a student is communicating when they create their own work while a link to art educational contexts is missing overall. Future study is needed to measure visual literacy skills as aligned with the proposed standards through carefully designed assessments with the intention of providing suggestions for successful instructional strategies and implementation that focus on visual literacy specifically. I believe the NAEA is beginning this work by continuing to vet model cornerstone assessments based on the NCAS which embed visual literacy skills while keeping the standards broad enough to apply to a

wide variety of K-12 art education contexts. Even with the model cornerstone assessments, the field of art education is lacking in resources, tools and processes to measure visual literacy.

Knowing Ourselves through Visual Literacy

Images play an important role in developing our consciousness and the relationship we have to our surroundings (Emanuel & Challons-Lipton, 2013). "We learn who we are by seeing ourselves reflected in images, and we learn who we can become by transporting ourselves into images" (Emanuel & Challons-Lipton, 2013, p.11). Elkins (2008) describes visual literacy as a way to gain greater understanding of ourselves and the ways we interact with the world:

> our sense of self, both individually and collectively, is made and remade in and through the visual, and therefore it is fundamentally important to learn to understand images as social constructions rather than reflections of reality, instances of aesthetic pleasure, or marketing tools. (p. 7)

In agreement, Eisner (2002) describes the importance of visual literacy by suggesting that we "learn to see what we had not noticed, to feel what we had not felt" (p. 11) to engage in a process through which the self is remade. Given the importance of seeing ourselves in images, it would be important to recognize that the literature does not mention inclusive pedagogy or culturally responsivity directly. As Emanuel & Challons-Lipton (2013) imply, as supported by both Elkins (2008) and Eisner (2002), the inclusion of critical literacy through inclusive pedagogy is important to the study of visual literacy as it relates to academic settings and should be prioritized for future study. Shifrin (2008) suggests that through visual analysis and production, we can develop methods for looking that is more mindful and cognitively engaged. Enhancing the kind of thinking students learn to do will directly and significantly influence what they come to know and the kind of cognitive skills they acquire (Eisner, 2002).

Visual Literacy as it Relates to Technology, Media and Digital Literacy

Reflecting my own observations of high school students, Buckingham (2003) suggests that we live in a 'network society' which demands a broader conceptualization of visual literacy as suitable to advance educational curricula into the 21st century. While Dallow (2008) describes digital-age skills as the "skills needed to negotiate the changing social complexities of contemporary life, which is composed of basic literacy (meaning "linguistic skills"), scientific literacy, information literacy, multicultural literacy, and 'global awareness'" (p. 98). Through this concept, visual literacy is defined as the ability to create, interpret, use and appreciate 21st century media in ways that advance thinking, decision making, communication and learning (Dallow, 2008).

Advances in technology offer immediate access to images, because these images appear to resemble reality, they can spark emotional, cognitive, and social responses (Sherwin, 2008). It is necessary to assess whether or not the image is an actual depiction of reality and acquire the skills needed to become visually literate (Sherwin, 2008). For example, recently we have seen an image of a two-year-old Honduran child and her mother taken by Getty photographer John Moore frequently on television and plastered on social media networks (see Figure 2). The image depicts a natural human condition, a child crying with her mother close by making it easy for many to relate to the image, tugging at our heart strings. The context of the picture is placed within an ongoing conversation surrounding the national immigration crisis which has been at the center of the news reporting of late. This image has taken on a life of its own, with this child as the "symbol in the debate over family separations" (Zhang, 2018, para 1). The image was taken during a ride-along with Border Patrol in Texas, and Moore comments that as a father himself the experience was particularly difficult as he had believed the child would be separated

from her family. The Border Patrol agent at the scene, as well as the child's father confirmed that the little girl was never separated from her family. The child's father confirmed that her mother was seeking employment, and that he was upset that she had taken the child with her across the border, especially late at night (Zhang, 2018). Despite the circumstances under which the image was captured, this image was then re-contextualized and used to spark awareness about children being separated from their families at the US border. This particular image and corresponding debate provides a strong example of visual images and the ways in which we are using them to convey messages to a massive, international audience to both inform and persuade. I believe this would be an excellent image to begin a conversation with a photography class about the power of news images and how narrative and truth are exemplified in this image. The TIME cover allows for additional discussion of how images are used in context and how the image can be manipulated to convey alternate meanings.

Figure 2: Iconic Photo of Crying Toddler at the United States Border, (PetaPixel, 2018).

In a time where crowdsourced news photographs are becoming more and more popular, it is important for art teachers to highlight the ways in which images are being both created and

read to convey meaning. Likewise, due to increased access to digital devices, in particular mobile phones with embedded cameras, student interest in photography has increased (Baker, 2012). Images have the power to enhance arguments and manipulate our senses to persuade (Sherwin, 2008), the immediacy of access to images makes literacy a crucial life skill. Stafford (2008) argues that we need to educate the public in understanding that humanistic education is essential in providing communicative modes and tactics of images as essential for success in the 21st century (Dallow, 2008).

Baker (2012) suggests that visual literacy is an integral piece of media literacy, and through media literacy we are asked to consider what is outside of the frame and to think about what we do not know. Mitchell (2008) characterizes a picture as a material object, as opposed to an image which is what appears in a picture, what you would hold in your memory, the specific content or narrative. Mitchell (2008) describes the importance of Panofsky's 'motif' when exploring notions of visual literacy in that elements in a picture are able to elicit cognition and recognition to make things nameable, identifiable and enable us to make connections to and identify relationships between what we see and what we already know in the construction of new knowledge (Mitchell, 2008). As I navigate through how to best address the needs of high school photography teachers and students, I have found that the continual connectivity afforded by mobile devices as a tool for creation, offers a sense of connectedness beyond what has previously been possible. This extreme accessibility of mobile media allows for creative experimentation and expression that pushes the boundaries of digital and physical space to the point where social relations become woven in the mobile art itself (Berry, 2017; Sheller, 2014). This sense of continual connectivity entangles life online and offline, as Hjorth & Pink (2014) describe the digital wayfarer. They describe moving through this way of life as one moves through "the

weather and the air, with the ground underfoot and surrounded by people and things, while also traversing digital maps, social networking sites, and other online elements" (p.45-46). In this sense, many students experience their lives connected to the Internet leading to digital wayfarers soon becoming the norm. Rice (2009) states that:

> Being always-on reinforces the belief that an invisible entourage follows us wherever we go. Our nonstop connectivity ensures we are always within reach of someone, at least technically, and at least in a way that might cause us to act differently than we would if we knew no one as watching. For example, our status updates are like personal headlines that we post to let others know what we are thinking, feeling, and doing. (p. 142)

As digital wayfarers are those who traverse online and offline life, the term networked co-presence is used to describe when online and offline experiences are mingled. In networked co-presence this way, our embodied, physical experiences are connected to virtual others through mobile social media providing a sense of presence of others (virtual others) while physically alone (Goggin, 2006). For example, virtual timelines become visual vernacular as they document interactions across time and space both visually and socially to the effect that even though you are alone, you feel the presence of your online virtual peers (Berry, 2017; Pink & Hjorth, 2012). As the lines blur between online and offline worlds, the lines between producer and consumer are also blurred (Berry, 2017; Ingold 2007/2008). It is important for art educators to embrace teachable moments and the accessibility of phoneography as opportunities for image making embedded in our daily routines (Berry, 2017). As such, scrutinizing the work of contemporary photographers, exploring big ideas (Walker, 2001) and honing skills in visual literacy are keys to becoming effective creators and consumers of images. Increased access to digital devices, in particular mobile phones with embedded cameras have aided in student interest in photography

due to ease of access (Baker, 2016). Images have the power to enhance arguments and manipulate our senses to persuade (Sherwin, 2008), the immediacy of access to images makes literacy a crucial life skill.

Summary

Currently, "most undergraduate curricula do little or nothing to enrich students' visual literacy" (Emanuel & Challons-Lipton, 2013, p. 12). In an image saturated world, as educators we have a responsibility to assist students as they enhance their ability to derive meaning from images as well as create meaningful visual images that effectively communicate ideas (Emanuel & Challons-Lipton, 2013). Although traditionally confined to art classrooms as embedded within visual art standards, visual literacy is a necessary skill for all students (Baker, 2012). Baker (2012) states "it is incumbent upon educators to learn how to teach with and about images and to help our students understand the language of photography" (p. 44). If we expect teachers to use visual elements in teaching and learning, teacher preparation programs need to include knowledge and skills that include the language of imagery and emphasize techniques in visual teaching (Emanuel & Challons-Lipton, 2013).

Visual literacy is incredibly valuable to a 21st century learning environment in that it has the ability to help us communicate across cultures, communicate effectively and harmoniously despite any personal, cultural or other differences (Emanuel & Challons-Lipton, 2013). 21st century fluencies include critical and creative thinking skills that can be applied in a multimedia world (Emanuel & Challons-Lipton, 2013). By using visual literacy to help students think differently, asking interesting questions and investigating visual nuances, visual literacy becomes both an instrument of knowledge and communication (Emanuel & Challons-Lipton, 2013).

Scholars agree that visual literacy "enables us to better understand, critique, communicate, and ultimately contribute to the culture" (Emanuel & Challons-Lipton, 2013, p.12).

Chapter 3: Methodology

The purpose of this study is to investigate the perspectives of high school photography teachers pertaining to visual literacy. To that end, the following research questions will guide this study:

- What are the perspectives of high school photography teachers regarding visual literacy?

- In what ways do high school photography teachers conceptualize, perceive, and experience visual literacy?

Exploring the perspectives of high school photography teachers revolving around understanding the particular points of view, attitudes toward, and how they regard visual literacy are of particular interest. Participants will be asked to about their perceptions surrounding visual literacy, to analyze whether they are aware or conscious of visual literacy in their current teaching contexts, express the ways in which they have to come to realize or understand visual literacy, and how they might interpret or perceive visual literacy. To achieve this, a qualitative methodology that uses a phenomenographic research design will be employed to gain understanding about the perspectives of high school photography teachers in their conceptualization, perceptions, and experiences surrounding visual literacy.

A qualitative approach allows for an inductive, open-ended exploration (Leavy, 2017) resulting in a greater depth of understanding for the study of high school photography teachers perspectives on visual literacy. Qualitative inquiry is appropriate when the purpose is to "explore, describe or explain" (Leavy, 2017, p.266). Further, qualitative research "focuses on meaning in context, lived experience; requires data collection instruments that are sensitive to underlying meaning in its interpretation and is inductive" (Miraglia & Smilan, 2014, p.308). Where this study aims to explore perspectives, perceptions, experiences and conceptualizations

surrounding visual literacy as experienced by high school photography teachers, a qualitative method is most appropriate.

Phenomenography and Variation Theory

Stemming from the "Greek word 'phenomenon' meaning 'that which is revealed'" (Austerlitz, 2007, p.167) phenomenography focuses on "researching lived experiences of people, from their own point of view" (Austerlitz, 2007, p.168). First associated with the work of Ference Marton and colleagues at the University of Goteborg in Sweden (Richardson, 1999), researchers have used phenomenography successfully to enhance teaching practice and pedagogy over the last decade (Dahlin, 2007; Rovio-Johansson & Ingerman, 2016). The goal of phenomenography is to explore the different ways in which people experience or think about a particular topic, experience or concept (i.e. visual literacy) (Richardson, 1999). It is best described "as an empirical research approach for investigating variation in conceptions of different educational phenomena" (Åkerlind, 2008, p. 633), in this case, visual literacy is the educational phenomena as explored through the perspectives of high school photography teachers.

Marton's (1994) initial definition of phenomenography can be explained as the study of the various ways in which people experience, perceive, apprehend, understand and conceptualize phenomena that are experienced in the participants world. Austerlitz (2007) agrees that phenomenography is "concerned with the relationships people have with the world around them, the way they experience phenomena and the way they construct concepts about this phenomena" (p. 168) while also exploring the meanings they assign to these experiences. Phenomenography supports the notion that individuals experience the world uniquely shaping their perspective of

the given phenomena, therefore their experience is always partial to the individuals own experiences (Åkerlind, 2008).

Phenomenography accepts the varying viewpoints of its participants and looks to understand the phenomena in terms of which aspects of the phenomena can be identified along with those that might be missing in order to identify participants awareness of the phenomena (Åkerlind, 2008). Lack of awareness and the spaces in between the various viewpoints are of interest in phenomenography and may often be just as telling as the participants articulation of the phenomena (Åkerlind, 2008). Nonetheless, a lack of awareness is helpful to gain an understanding of how participants experience visual literacy and may assist in creating future opportunities for investigation or adjustments in educational practice.

Phenomenographic research has two key features, "there are a limited number of qualitatively different ways in which phenomena are experienced and that the categories of description are logically and hierarchically related to one another" (Ashworth & Lucas, 1998, p.426; Austerlitz, 2007; Hallett, 2013; Rovio-Johansson & Ingerman, 2016; Samuelsson & Pramling, 2016). From the phenomenographic perspective, participants conceptions of visual literacy are seen as "representing different breadths of awareness of the phenomenon" (Åkerlind, 2008, p. 634) and as a result, these conceptions will be related in a hierarchy based on in inclusiveness (Åkerlind, 2008; Dahlin, 2007; Khan & Markauskaite, 2017). When gathering data, there is an emphasis on experience as it is discussed and described by the participant who has direct experience with the phenomena of visual literacy over facts alone (Ashworth & Lucas, 1998). Phenomenography is grounded in the lived experience of the participants and is "concerned with how individuals conceive of various aspects of life" (Ashworth & Lucas, 1998, p.416). Khan & Markauskite (2017) describe referential and structural aspects of experience to

help characterize both conception and approach in phenomenographic studies. For example, in this study, aspects that characterize what teachers think about teaching visual literacy and their experiences teaching visual literacy can be described as referential. The structural aspects refer to how teachers carry out the teaching of visual literacy (Khan & Markauskaite, 2017), together the referential and structural aspects assist the researcher in understanding the phenomenon in context more fully.

Variation theory of learning has developed out of phenomenographic research (Åkerlind, 2008) and is generally understood as "a theory for learning specific skills and knowledge" (Samuelsson & Pramling, 2016, p. 288). It is grounded in the notion that people experience a phenomenon in relation to previous experiences and it is the awareness of such experiences that change over time to bring about new learning and knowledge. To describe the relationship further, "phenomenography explores the qualitatively different ways in which people potentially "experience" certain phenomena they meet in their worlds, variation theory offers a framework for understanding what it takes to experience something in a certain way (or learn about it)" (Rovio-Johansson & Ingerman, 2016, p. 261). Variation theory can be used to inform teaching through investigating variation in understandings of key concepts followed by using this information to design new curriculum that emphasizes a full range of key features of the concept explored (Åkerlind, 2008; Dahlin, 2007).

It is important to note that both phenomenography and variation theory acknowledge the difference between participant experiences and understandings. To clarify, how we experience a phenomenon may be crucially different than how we understand the same phenomenon (Dahlin, 2007). Although there will naturally be some overlap between experiences and understandings, it may be useful to study these differences in order to gain a more complete perspective on how

high school photography teachers regard visual literacy (Dahlin, 2007). In this study, semi-structured interviews will be used to further explore how participants experience and perceive visual literacy. During the interviews, the participants will be asked to articulate how their experiences inform their understanding and teaching practices regarding visual literacy.

This chapter aims to provide an in-depth explanation of the methodology employed in this research study. To do so, the following areas will be covered in this chapter: description of the research sample, information needed for the study, overall research design, data collection, analysis and synthesis of the data, ethical considerations, trustworthiness, along with limitations and delimitations.

Research Sample

This study explores the perspectives of high school photography teachers regarding visual literacy. To recruit high school photography teachers for participation in this study, purposeful sampling was used to ensure that the participants have an in-depth understanding of teaching photography in high school settings and are therefore positioned to best address the research topic (Leavy, 2017). In phenomenography, "it is assumed that the participants have at least some previous experience with the phenomenon" (Dahlin, 2007, p. 333); for this study, it is assumed that high school photography teachers have some experience with visual literacy.

Emails requesting participation will be distributed via the National Art Education Association secondary level online listserv and corresponding online collaborative space (called NAEA Collaborate). Additional solicitation will happen through online professional learning networks such as the High School Photography Educators and High School Photography Teachers Facebook Groups and the NAEA Secondary Division Facebook Group. Through the use of snowball sampling, those engaged in these networks will be asked to share the request

with anyone they know who teaches high school photography and may provide important data for the project (Leavy, 2017). Participation in this study is completely voluntary.

Those with any experience teaching photography at the high school level were encouraged to participate. The site for this study is both virtual and global; given that the researcher is situated in the state of Massachusetts, in the United States of America and that the solicitation for participants will happen using the National Art Education Association networks, it is expected that the majority of participants will reside in the United States. For instance, the members of the High School Photography Teachers Facebook Group will be asked to participate in the study: On August 12, 2018 a member of this group asked "Where is everyone from?" and approximately six hours later, over 120 members responded with their location. With a total of 2,342 members (as of August 12, 2018 at 4pm EST), one of the page administrators, Jessica Michaels from Milwaukee, WI posted the figure below indicating the group demographics as provided by Facebook (See Figure 3). As the figure indicates, the highest population of photography teachers participating in this professional network reside in the United States (1,617 members), followed by Australia, the United Kingdom and others. Given that participants for this study will be solicited via this network and others like it, the researcher expects the majority of participants to reside within the United States. Participants from other countries are encouraged to participate to provide an even broader perspective on how visual literacy is perceived and applied in high school photography classrooms globally.

Top Countries		Top Cities	
United States	1,617	Sydney, NSW, Australia	97
Australia	254	Chicago, IL	36
United Kingdom	178	Glasgow, Scotland, United Kingdom	31
Canada	48	New York, NY	28
India	40	Houston, TX	27
New Zealand	16	Phoenix, AZ	21
Philippines	11	Baltimore, MD	17
Pakistan	9	Los Angeles, CA	15
South Africa	8	Atlanta, GA	14
Germany	8	Milwaukee, WI	13

Figure 3. High School Photography Teachers Facebook Group Demographics (August 12, 2018)

Within phenomenography, "a single figure sample size can be as valid as a large one" (Bell, 2016, p.65), while Trigwell (2000) suggests a sample size between ten and twenty participants, this study has a total of 100 participants. 100 participants completed the survey/ questionnaire, and on the survey/ questionnaire, participants were asked to enter their email address if they were willing to be interviewed for this research project. From the 26 participants willing to be interviewed, five were selected in attempt to obtain the most diverse perspectives possible. Participants will first be sorted by the percentage of their teaching schedule spent teaching photography, with effort made to include as those with the highest percentages. Additionally, the amount of years they have been teaching and teaching photography were considered, along with geographic area and school demographics (diversity of student population, percentage of students on free or reduced lunch, and urban/ suburban/ rural settings) were be used to further narrow the field. This process helps with the diversity of participant

selection, specifically, "selection of participants aims to ensure maximum variation in participants' experiences, and consequently, in their ways of seeing a particular phenomenon" (Khan & Markauskaite, 2017, p. 696).

Research Design Overview

This study is not only concerned with the experiences with visual literacy as described by the participants but also with accessing their own understandings of visual literacy (Hallett, 2013). By employing a qualitative methodology with a phenomenograhic focus, this study will explore perspectives of high school photography teachers in how they conceptualize, perceive, and experience visual literacy. A survey/ questionnaire was designed to gather data from current high school photography teachers residing in the United States and abroad. Purposeful sampling through professional learning networks, High School Photography Teachers and High School Photography Educators Facebook Groups along with the NAEA Secondary Division Group were employed to solicit participation. In addition, the NAEA listserv, NAEA Collaborate was used to gain further participation in this study. Snowball sampling was used as participants were asked to share the survey/ questionnaire with other high school photography teachers they may know.

The survey/ questionnaire asked participants if they were willing to be interviewed to provide further information about their perspectives of visual literacy. From the responses, five participants were chosen for semi-structured interviews lasting approximately 40 minutes each. Interviews were conducted via Skype or in person and audio recorded. Transcripts from the interviews were then transcribed and coded. Responses from the survey/ questionnaire were also coded and constantly compared with the interview transcripts. *In vivo* coding was used to ensure that the themes and categories of description emerge from the data itself and were not preconceived by the researcher.

Data Collection Methods

The survey/ questionnaire aims to gather data that explores high school photography teachers' perspectives of visual literacy. This online survey/ questionnaire will ask participants to rank various aspects of visual literacy in attempt to indicate the components they deem most important or relevant to their experiences. Additionally, participants will be asked about their experiences teaching visual literacy through the use of open-ended prompts that aim to encourage discursive responses that allow for the participants to describe their perspectives in their own words. Open-ended responses to questionnaire prompts mimic written interviews which benefit the research allowing participants from disparate locations to participate and "allow participants more time to respond to questions thoughtfully" (Leavy, 2017, p.142). The survey/ questionnaire ends by prompting participants to describe their school settings by asking about the student population, enrollment, and location. For the complete survey/ questionnaire please see Appendix E.

To further explore the perspectives of high school photography teachers about visual literacy, five teachers were selected to participate in semi-structured interviews. Interview is the preferred technique for engaging in phenomenography (Ashworth & Lucas, 1998) and the semi-structured format is employed to allow the subject to explain visual literacy while exploring its various aspects as fully as possible (Ashworth & Lucas, 1998; Hallett, 2013; Khan & Markauskaite, 2017). Interviews were conducted in person for those who were located within driving distance of the researcher or virtually as participants were likely to be located across the country or globe. Audio recordings of the interviews were used to assist in transcription. The interview questions were designed in a format aimed to prompt participants to describe their perspectives, perceptions of and experiences with visual literacy. In order to identify the

differences and similarities in how high school photography teachers regard visual literacy, an attempt was made to design interview questions that would allow participants to describe their experiences with visual literacy in their own training as well as in their current classroom practice. Interview methods allow for conversation to be used as a learning tool (Leavy, 2017). Semi-structured interview format allows for "participants to their own language, provide long and detailed responses if they choose, and go in any direction they want in response to the question" (Leavy, 2017, p.139). Marton (1986) states:

> We use questions that are as open-ended as possible in order to let the subjects choose the dimensions of the question they want to answer. The dimensions they choose are an important source of data because they reveal an aspect of the individual's relevance structure. Furthermore, though we have a set of questions at the start of the interview, different interviews may follow somewhat different courses. (p. 42)

While conducting the interviews, the researcher was careful not to impose her preconceptions and allow the participants to tell their stories (Austerlitz, 2007). To conclude the interviews, participants were asked to reflect on their own lived experiences and the ways in which they may impact how they experience visual literacy. For the interview guide, see Appendix F.

Interviews were conducted online via Skype or in-person, lasted between 40 and 60 minutes, were audio recorded and transcribed verbatim. Once transcribed, transcripts were sent to the interview participants to conduct member checks to allow for further clarifications or corrections in the transcription process in effort to ensure validity. Subjects' identities and private information will not be revealed and pseudonyms will be used when referencing interview participants. Please see the informed consent form for the interview participants included as

Appendix G. This study has no foreseeable risks. Confidentiality and anonymity were maximized; responses to survey/ questionnaire, interview recordings and transcripts were kept under password protected digital folders and destroyed after five years. The only identifying information asked for was a participant email address which was only used to contact for follow-up questions (if elected) or to send a summary of findings. Adding an email addresses was optional, and participants selected if they would like to be contacted for the interview or wished to receive the summary of findings. Participants were not required to answer questions that they chose not to and were reminded that they could withdraw from the study at any time without prejudice.

Data Analysis and Synthesis

Once transcribed, the data were coded to identify differences in perspectives regarding visual literacy. Data from the survey/questionnaire and interviews were compared and referenced for both similarities and differences. To ensure validity, data is triangulated by using of multiple data sources (interview transcripts as well as the responses to the survey/ questionnaire) that address the same questions and concepts (Leavy, 2017). Specifically, *in viv*o coding (Charmaz, 2014) will be used to systematically code for recurring themes while continually referring back to the research question. The term *in vivo* is used to describe a coding technique used in qualitative research, where participants meanings and views are preserved by paying careful attention to participants speech and meanings. *In vivo* codes assist in identifying commonly understood terms or points of view ultimately integrating theory that grounds the research (Charmaz, 2014).

To begin, the transcripts were imported into Nvivo software, which was used to assist with transcription and organization. Then, the data were taken as a whole (Bell, 2016; Bowden &

Walsh, 2000) and read through thoroughly before identifying similarities and differences in the

responses as the coding begins (Khan & Markauskaite, 2017). Coding is described as "the

process of assigning a word or phrase to segments of data" (Leavy, 2017, p.151) which aims to

summarize or capture the essence of that portion of data (Leavy, 2017). In phenomenographic

data analysis, participant responses relating to their experiences are seen in relation to each other

(Åkerlind, 2008). Marton (1994) describes the notion of bracketing as when the researcher

focuses on the similarities and differences among the ways in which the participants are

describing various aspects of the phenomenon as opposed to comparing the responses to how the

researcher understands the phenomenon. In contrasting the ways participants understand visual

literacy, the researcher can identify the key features of the phenomenon (Åkerlind, 2008).

Looking at the data in this way "relies on participants exact language to generate codes" (Leavy,

2017, p. 151) which allows codes to develop organically that can then be categorized by

grouping similar or related codes together (Leavy, 2017), which leads to the development and

identification of categories of description. As the categories were identified, transcripts were then

re-analyzed with care to "avoid misrepresenting the given meaning assigned, this involved an

iterative approach, checking interpretations and continually sorting and compering the data, until

saturation was deemed to have occurred" (Bell, 2016, p. 67).

The results of phenomenographic research are presented in categories of description

which refer to the resulting themes as constructed from the data as organized in hierarchies based

on inclusiveness as indicated in participant responses (Ashworth & Lucas, 1998). Categories of

description are employed to create a hierarchical set of understandings referred to as the outcome

space (Bell, 2016; Hallett, 2013; Khan & Markauskaite, 2017). Although it is not essential for

the structure to be hierarchical, it is helpful to identify the commonalities shared between

participants (Bell, 2016). Marton and Booth, (1997) suggest the following criteria for identifying categories of description. Categories should:

1. Reveal different and distinct components of the phenomenon

2. Be logically related, and be hierarchically organized in relationship to each other

3. Describe variation across the sample (outcome spaces) should be as few in number as possible. (Bell, 2016; Hallett, 2013)

Ashworth & Lucas (1998) emphasize that the researcher's knowledge of the subject matter and discipline are important to analyzing data, but they caution that it could be distracting. They suggest that the researcher suspend assumptions, suspicions, personal knowledge and beliefs in order to understand the lifeworld of the participants (Ashworth & Lucas, 1998; Bell, 2016). When coding, careful attention was paid to the participant responses and care was taken not to be influenced by the aspects or indicators described in the literature (Ashworth & Lucas, 1998). In order to identify what may be missing from the participant accounts, personal experience of the researcher and support from the literature provided useful when identifying potential gaps.

The process as described in this chapter, allows for data to be constantly compared while receiving analytic treatment through initial and focused rounds of coding. The coding process, employed by phenomenographers and grounded theorists alike, allows for the categories and themes to emerge from the comparisons within data itself, allowing themes to be discovered and refined against the participants discursive accounts (Richardson, 1999). Phenomenography does not attempt to understand why participants think differently, rather it highlights how they experience and interpret phenomena in different ways (Bell, 2016). The potential impact of this study, as based on the perspectives of high school photography teachers, will greatly benefit the

field of art education specifically as we look to prepare students for life and art in the visually

rich and continually evolving 21st century. Through greater understanding of high school

photography teachers' perspectives regarding visual literacy, this study can offer

recommendations on how to better develop teacher preparation, pedagogy, professional

development, and related resources to assist in teaching visual literacy.

Ethical Considerations

An application to conduct this study was approved by the Institutional Review Board

(IRB) of Lesley University on August 13, 2018 (see Appendix H). At that time, the review board

indicated that the study (as presented in the application):

> provides a detailed description of the recruitment of participants, the method of the
>
> proposed research, the protection of participants' identities and the confidentiality of the
>
> data collected. The consent form is sufficient to ensure voluntary participation in the
>
> study and contains the appropriate contact information for the researcher and the IRB.
>
> (Personal communication, IRB, August 13, 2018)

Pertaining to the survey/ questionnaire, participants were provided with a statement of informed

consent at the very top of the digital survey/ questionnaire. This statement indicated that

participation was voluntary, and that they may withdraw at any time without prejudice. It also

includes a sentence about confidentiality and describes who will have access to their responses.

The statement also indicates that there are no foreseeable risks and no compensation will be

given for participation. At the bottom of the survey/ questionnaire participants are asked to

provide their email address if they wish to receive a summary of findings or if they would like to

be contacted for an interview. The email address is the only identifying information participants

are asked to provide and it is completely voluntary. To view the survey/ questionnaire please see Appendix E.

Participants who were interviewed were emailed a digital informed consent form. The contents of the form were reviewed at the beginning of each virtual interview and digital signatures were obtained before the interview commenced (see Appendix G for the informed consent form). Participants were reminded that they did not have to answer all of the questions asked and could withdraw at any time without prejudice. Interview participants were given pseudonyms when referred to in this dissertation and any other future presentation or publications. To ensure confidentiality, all transcripts and audio recordings are kept in digital form in password protected folders accessible only to the researcher and the dissertation advisor. All data will be destroyed after five years.

Issues of Trustworthiness

In my role as a high school photography teacher for 13 years, I have experienced shifts in state and national standards with varying emphasis on visual literacy, mostly as embedded within the standards themselves. To date, I have yet to experience curriculum standards on the state or national level that specifically address visual literacy as a stand-alone category to be addressed. Early on in my teaching career, I noticed that my high school students learned skills and media techniques with ease only to be mystified when confronted with contemporary art of any kind. As a photography teacher, I aimed to design curricular supports that would assist my students in analyzing and decoding work based on their knowledge and lived experiences. Through collaborative discussions and shared engagements with contemporary photographs my students were able to gain deeper understanding of visual communication in the work of others and in turn, become better visual communicators. These experiences specifically designed to enhance

visual literacy in my students were pivotal in my investigation of the perspectives of high school photography teachers regarding visual literacy. As mentioned in chapter one of this dissertation, I assume that some photography teachers have similar experiences and have identified a similar student need for increase in visual literacy acquisition. I also assume that given the lack of concrete description in the state and national standards, it may be frowned upon or even discouraged to defer from anything that is not explicitly described in the approved standards within each individual district.

My experience in the field allows me to look at the data as both an insider and an outsider as each educational context has its own constraints and opportunities. In an attempt to understand what influences the teaching of visual literacy in high school classes, I listened carefully to participant responses. Hearing accounts in their own words and respecting unique points of view, especially when they differ from my own, allowed me to expand my own perspective of visual literacy. I believe that teachers of photography are uniquely positioned to address the bombardment of images high school students are both viewing and creating daily. This role provides high school photography teachers with a strong basis for identifying the similarities and differences in how visual literacy is understood, taught and embodied in classroom contexts. My role as an insider through participation in groups such as the High School Photography Educators Facebook Group fosters a sense of trust in knowing that we share teaching of photography as a commonality.

Throughout the data collection and analysis I was continually aware of my own views and took great care to listen thoroughly to the responses of the participants, using their words and articulations to generate the categories of description and results of the study. Multiple data sources including a survey/ questionnaire and interviews were employed to triangulate the data

and ultimately increase validity. For the interviews, member checks were used to ensure accurate portrayal of participants views by sending transcriptions of interviews to participants for review before coding. The creation of a clear plan and explanation of how the data were collected and analyzed provided a reliable and dependable process.

Although findings of this study are not intended to be generalizable, it is likely that they may be useful to educators and researchers who wish to study various aspects of visual literacy and its place within educational contexts. I was able to obtain a holistic and realistic picture of how high school photography teachers regard visual literacy through the use of rich, thick descriptions as exemplified in the responses.

Limitations and Delimitations

When reviewing the literature on visual literacy, it was clear that there was a lack of research about visual literacy in art education contexts. When deciding to focus on high school photography teachers specifically, I relied on my experience as a high school photography teacher under the assumption that high school students are creating and consuming images at a rapid rate while not taking the time to critically investigate how they are understanding or communicating through photographs. Additionally, in Massachusetts, there are a set of Core Course Objectives designed by the state Department of Elementary and Secondary Education (ESE), which includes objectives for high school photography. These were designed to assist teachers in creating assessments based on the highest priority needs, and in Massachusetts ESE found that other than visual art in general, most programs included both ceramics and photography as stand-alone courses thus sparking the creation of media specific objectives in both ceramics and photography. The study focuses on high school teachers as opposed to elementary and middle school teachers simply due to the increased accessibility of photography

offerings in high school settings. Although professors of photography teaching in institutions of higher education would be a group worth investigating, they were not included here as they are not required to abide by curriculum standards imposed on many K-12 institutions and may have little training in curriculum design, or pedagogy.

Allowing the study to focus on photography teachers as opposed to all art teachers allows for investigation of a specific subgroup that assumes a more limited amount of differences in their understanding of visual literacy. Focusing on photography teachers also allows for a limited number of standards that may influence their decision making surrounding how visual literacy is experienced in their classrooms.

I was able to draw from my own experiences as well as those shared within the professional learning networks when investigating the strategies, approaches and resources available for the survey. Although the resources are limited, the Aperture Foundation's On Sight materials were the most recently released and focused on photography specifically assisting in the decision to focus on photography-specific contexts. When deciding on which resources to include on the survey, I included all that I could find (which were only eleven) and although they can all be applied to photography, only two were aimed at photography specifically (Aperture On Sight and Photovoice).

Soliciting participation through online professional associations and related virtual professional learning networks provided useful as participants were already engaged in discussion surrounding issues deemed important to high school photography teachers. I acknowledge that soliciting solely through online means and using digital and virtual modes of participation limits the ability of those teachers who do not have the means to participate in this way. The number of members in these groups seemed to suggest that over 1,000 high school

photography teachers have access to online and digital resources. Additionally, this study sought to expand the reach of the call for participation to be national, and when the researcher realized that there were a number of participants from other countries interested, the study was expanded to include participants from across the globe. The timeline for data collection coincided with many teachers getting ready for or going back to school which may have restricted sample size due to lack of availability in their schedule. It did, however, provide an opportunity to engage educators at the beginning of the school year when they might have time to think about what and how they will be including visual literacy among other topics into their current (or new) curriculum.

When designing the survey/ questionnaire, in attempt to increase validity and support participation, the researcher asked three high school photography teachers for feedback on the survey/ questionnaire itself. Their feedback was implemented along with that of the dissertation committee, resulting in the inclusion of the Likert scale to rank importance of various aspects of visual literacy as identified from review of literature and related standards. This review allowed for clarification of prompts, and overall streamlining of the experience which aimed to shorten the length of time participants needed to complete the process. Ultimately this assisted in gaining greater participation in hopes of generating more thoughtful descriptions for the open-ended prompts.

Participation in this study may benefit participants in thinking about visual literacy and accessing the resources provided in the questionnaire. For example, the National Art Education Association's definition of visual literacy is included in the survey/questionnaire as well as links to the National Core Arts Standards and the ACRL Visual Literacy Standards. In addition, a list of ways teachers may apply visual literacy in their teaching will be embedded within the prompts, it is likely that teachers may not be familiar with some of these resources and may wish to investigate further as

a resource for their own teaching. This process may assist the teachers in reflective practice as they process and communicate the ways in which they use visual literacy in the classroom. They may generate new ideas and wish to include additional strategies or supports in their teaching practice.

Summary

For this study, a qualitative approach that employs a phenomenographic design was used to explore the perspectives, experiences and conceptions of high school photography teachers regarding visual literacy. Data were gathered through the use of a survey/ questionnaire and triangulated using semi-structured interviews. Constant comparison was employed to see the data as a whole to assist in identifying similarities and differences in the perspectives of photography teachers on visual literacy. *In vivo* coding was applied to assist the researcher in deciphering categories of description. Once the categories were identified, the data was re-analyzed to ensure accuracy. The categories were then organized into three main themes. The results of the data analysis and will be discussed in depth in the following chapter.

Chapter 4: Results

This chapter presents the key findings obtained from five in-depth, semi-structured interviews and 100 survey/ questionnaire responses designed to explore the perspectives of high school photography teachers regarding visual literacy. Through the use of constant comparison and *in vivo* coding, data were organized into descriptive categories and further into themes. As a result, three major themes were constructed: *Curricular Influences, Pedagogical Considerations, and Creative Applications*.

This chapter begins with an overview of the participants teaching contexts including their geographic locations and school size. Further information regarding their teacher training, professional development and current teaching experience is included to provide an understanding of the participants as a whole as well as how they differ. A synthesis of data collected in both the survey/ questionnaire (See Appendix E for survey/ questionnaire) as well as the semi-structured interviews to explore the perceptions and experiences high school photography teachers have with visual literacy is presented through the major themes: *Curricular Influences, Pedagogical Considerations, and Creative Applications*. Each theme contains related categories of description. As displayed in figure 4 *Curricular Influences* is made up of categories: students, standards, teachers lived experiences and schools and districts. *Pedagogical Considerations* is made up of teaching visual literacy, dialogue and art historical references and resources. Finally, *Creative Applications* is made up of visual sensitivity, generating a product and communicating visually.

Curricular Influences	•Student Needs •Standards •Teachers' Lived Experiences •Schools and Districts
Pedagogical Considerations	•Dialogue-based strategies •Resources
Creative Applications	•Visual Sensitivity •Creating Photographs
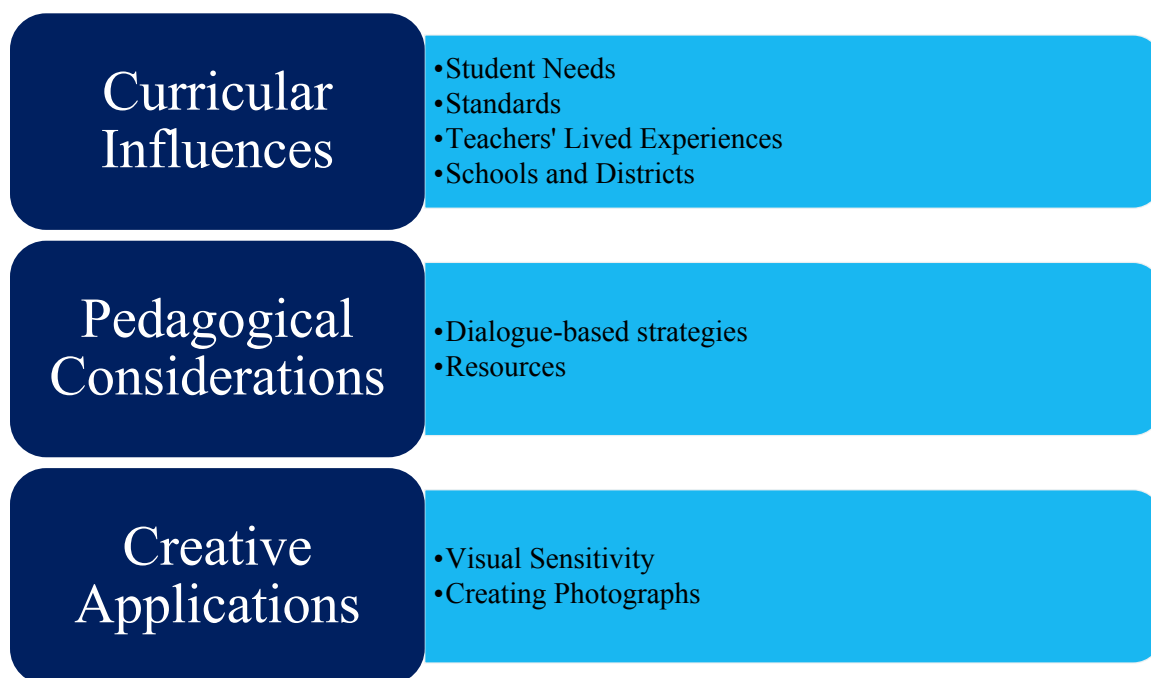
Figure 4. Major themes and categories of description.

Participants

To best explore participant perspectives of visual literacy, the survey/ questionnaire was used to gather information about the geographic location, and size of the school in which the participants are currently teaching. Participants were also asked to indicate their perception of the cultural and ethnic diversity as well as economic standing of their student population. This information was collected in effort to ensure that a variety of viewpoints were represented from various geographic locations and teaching contexts in high school settings. To assist with understanding experiences with visual literacy, participants were asked about their teaching experience, teacher preparation, and professional development activities.

Participants: Geographic Location

The geographic location of participants provided viewpoints from a range of states within the United States as well as a few international locations. The largest percentage of participants

are from my home state, Massachusetts (25), with California (10) and Virginia (9) following. In all, participants represented 28 US states (see Figure 5). In addition, there are five participants from Australia (three from the New South Wales region), three from Canada (two from British Columbia and one from Ontario), two from the United Kingdom, one from China and one participant who did not indicate their geographic location. Overall, the participants represent a range of viewpoints from a number of geographic locations.
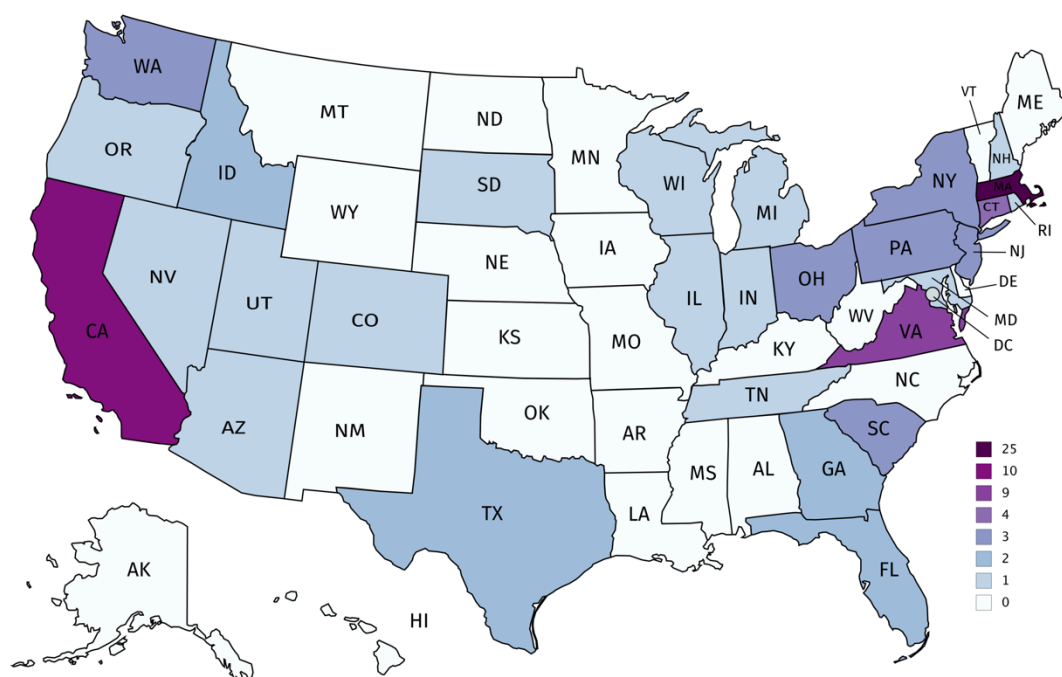
Figure 5: Participants Geographic Locations in the United States.

Participants: Teaching Locations and Student Population

Participants were asked to describe the context in which they teach by indicating if their school was in an urban, suburban or rural area, the size of the student body, amount of students who qualify for free or reduced lunch, and their perception of the racial and ethnic diversity in their school.

Regarding the locations of the schools, 19 were identified as urban, 62 as suburban, 15 as rural, 1 large town but not a city, 1 regional school that includes three towns in two counties, 1 exurban (small agricultural town that has become a bedroom suburb for nearby city) and one in between suburban and rural representing a range of teaching contexts. In addition, participants were asked to estimate how many of their students qualify for the free and reduced lunch program in the US, as an effort to gain understanding of how many students may be living below the poverty line. This measure is limited as many states are transitioning to multiple measures in order to identify students who might be living in poverty. Additionally, districts with a high number of students living below the poverty line, such as Boston Public Schools, are providing free lunch to all students. It is possible that the implementation of new tools to measure student need may be why not all participants answered this prompt. Keeping in mind that this measure may also differ for international participants, the breakdown is as follows (see Table 1):

Amount of students who qualify for free or reduced lunch	Number of Participant Responses
Less than 10%	29
10% to 25%	20
26% to 50%	20
More than 50%	24
Unknown/ Blank	5

Table 1: Amount of students who qualify for free or reduced lunch.

The responses indicate a spread with 29 participants teaching in schools where they believe less than 10% of students qualify for free or reduced lunch programs. This follows with 20 respondents each for the 10% to 25% and the 26% to 50% range, with 24 participants having more than 50% of their students qualify for free or reduced lunch programs. When asked during the interview, one respondent who had not previously answered this prompt explained that he

knew that some of his students must be living below the poverty line but that he didn't know who or how many.

> I have no idea. But we do have, when I look on their attendance records we have students who are in homeless programs. Umm. And you know I don't know whether that means they are living in shelters, that I don't know. I don't ask them. Yeah there are students living in poverty or students certainly qualify for free lunch because you know like I said we have farmers. But we also have people whose parents are agricultural, migrant workers basically… (CA Photography Teacher, Personal Communication, October 2, 2018)

Other teachers seemed confident in their knowledge of the economic status of their student population. A photography teacher from Massachusetts discussed that her school provides everything the student would need in terms of materials and equipment to be successful in her photography course, "when somebody brings up fees we always say no because half the population of the school is on free lunch. So, there's a lot of kids that wouldn't take the class if it costs 50 dollars." (MA Photography Teacher, Personal Communication, September 25, 2018). All five of the teachers interviewed work in public schools where equipment and supplies are provided for student use.

Participants were asked to estimate the racial and ethnic diversity of the student population at their schools, using a Likert scale (See Table 2). The scale indicates that participants teach in schools with varying amounts of racial and ethnic diversity.

Very Diverse: 1	2	3	4	Not Diverse: 5
23	9	24	32	12

Table 2: Participant estimation of racial and ethnic diversity of student populations.

The majority of participants (68) teach in schools that fall within the traditional high school format including grades nine through 12. Three schools included grades eight through 12, six schools included grades seven through 12, one school included grades six through 12, one school included grades seven through ten, and nine schools included Preschool through grade 12. Additionally, one school served students aged 11 to 18, one served students aged 12 to 18, and one school served students aged 16 to 19. The amount of students in the schools ranged from 55 to 4,300. The 92 responses are represented in Figure 6 below.
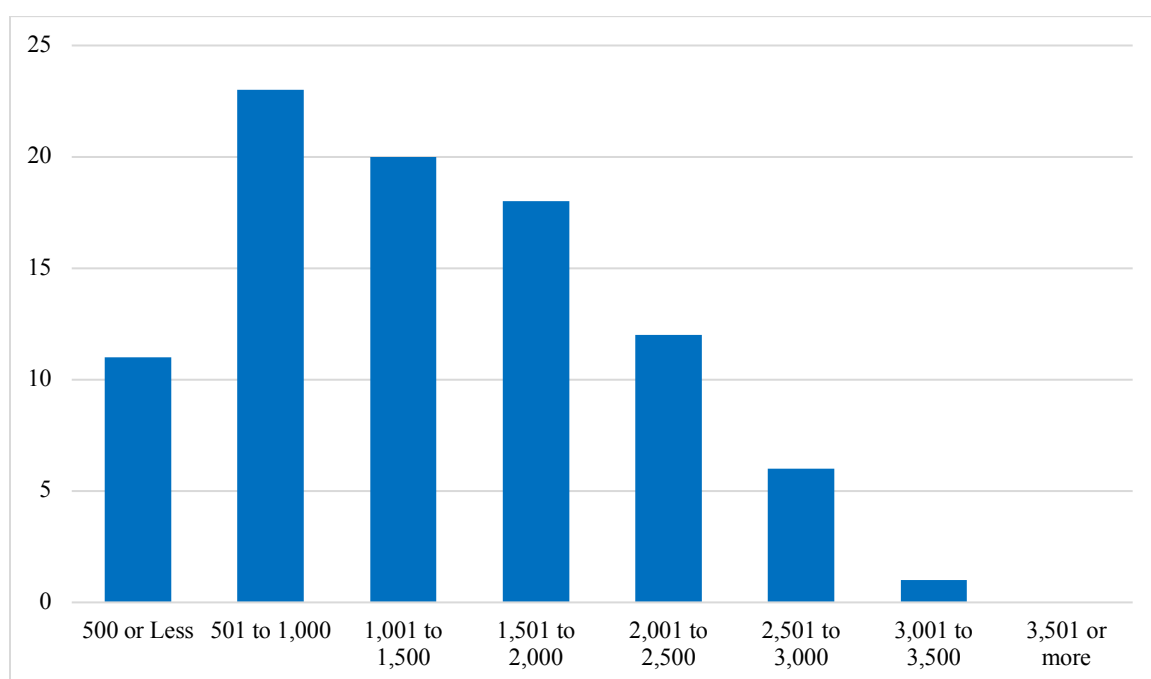
Figure 6. School populations.

Participants: Teaching Experience

To gain understanding of how experienced the participants were in teaching photography, the total amount of years participants have been teaching was compared to the amount of years they have spent teaching photography specifically. Responses ranged from first year teachers to those who have been teaching photography for 35 years or more.
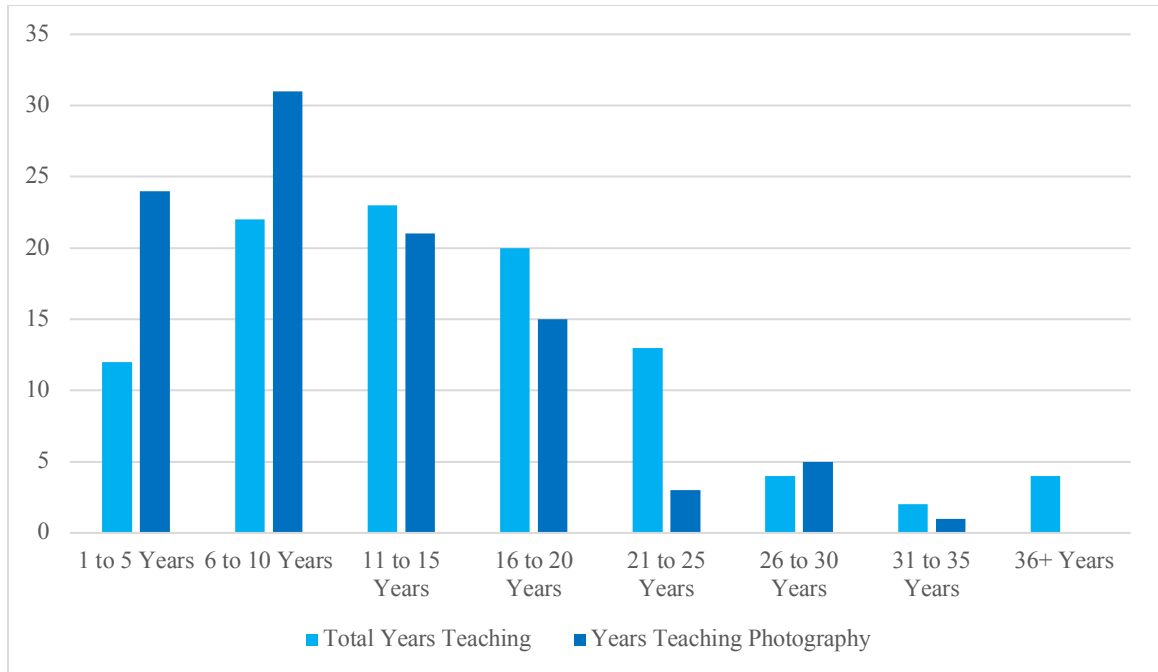
Figure 7: Participants: Total years teaching collectively compared to years teaching photography. This figure represents the 100 responses as one whole group.
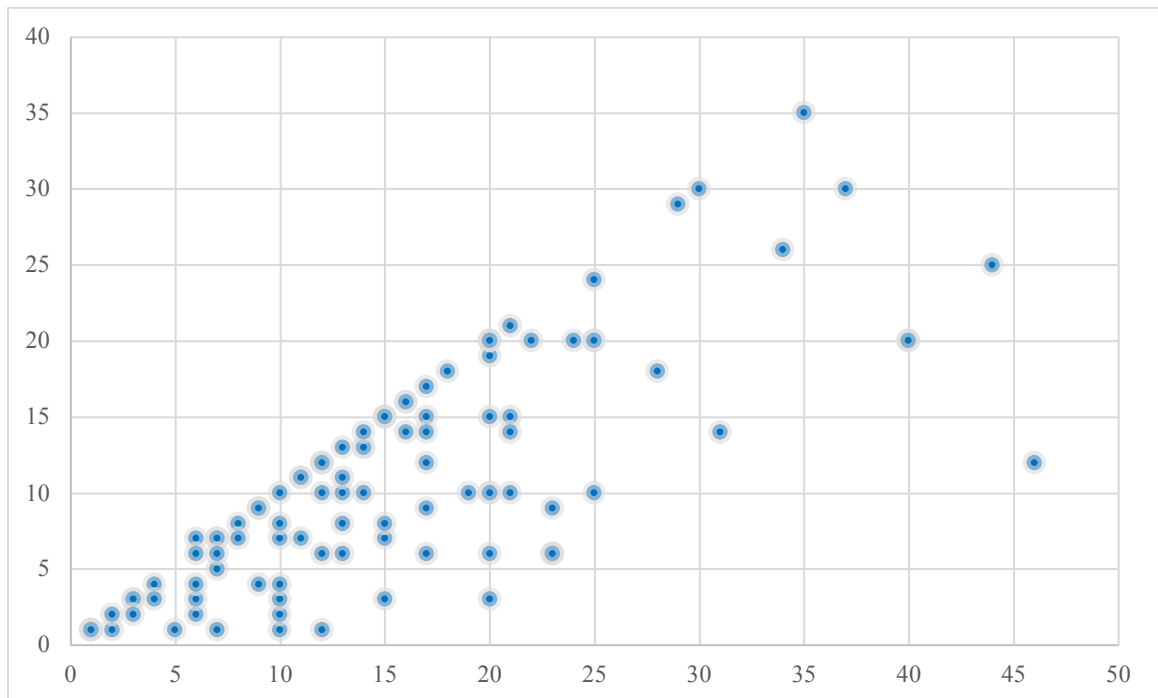
Figure 8: Participants total years teaching and years teaching photography. The total number of years teaching collectively runs across the bottom horizontally (x-axis) and the amount of years teaching photography displayed vertically (y-axis). This figure represents the individual responses of the participants.

Additionally, 36 participants have taught photography the entire time they have been teaching (See Figure 9), 21 participants have been teaching photography 75% to 99% of the total time they have been teaching, 21 participants have been teaching photography 50% to 74% of the total time they have been teaching, 15 participants have been teaching photography 25% to 49% of the total time they have been teaching and 7 participants have been teaching photography 24% or less of the total time they have been teaching. This indicates a solid distribution of photographic teaching experience among the participants as a whole.
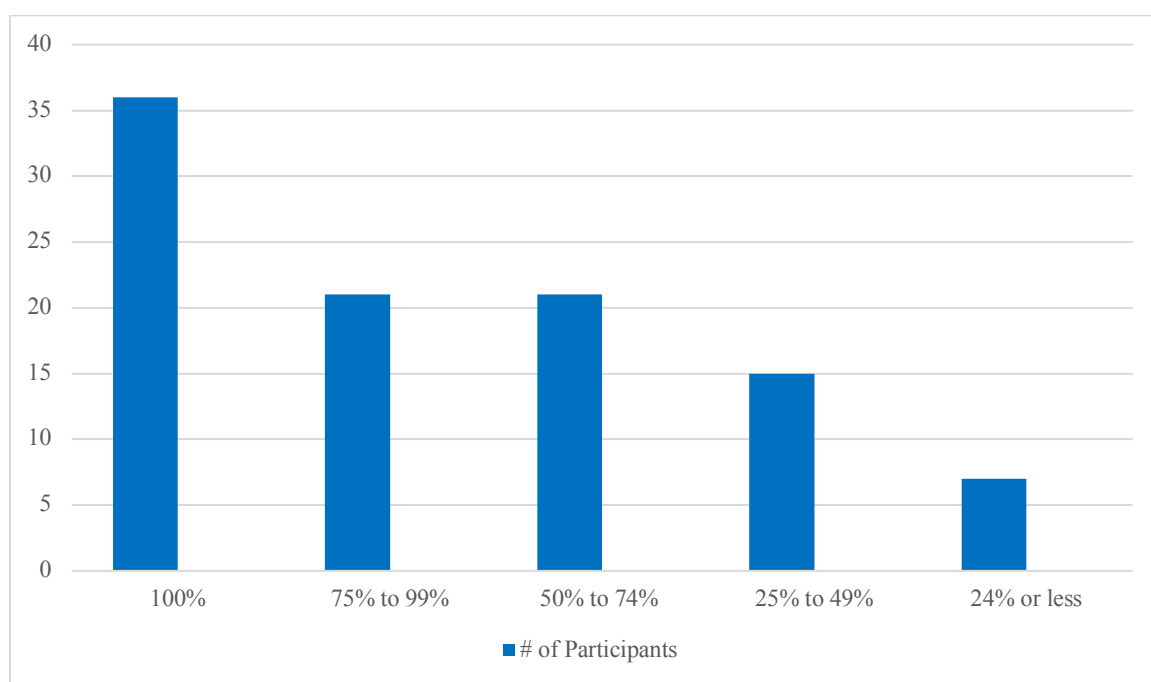
Figure 9. Percentage of years participants have been teaching photography of the total years they have been teaching overall.

Given their current teaching schedule, study participants spend between 10% and 100% of their school day teaching photography. Of the 100 participants, 48% of respondents spend

51% or more of their teaching schedule focused on photography with 20 participants teaching

photography 100% of their current teaching schedule (See Figure 10).
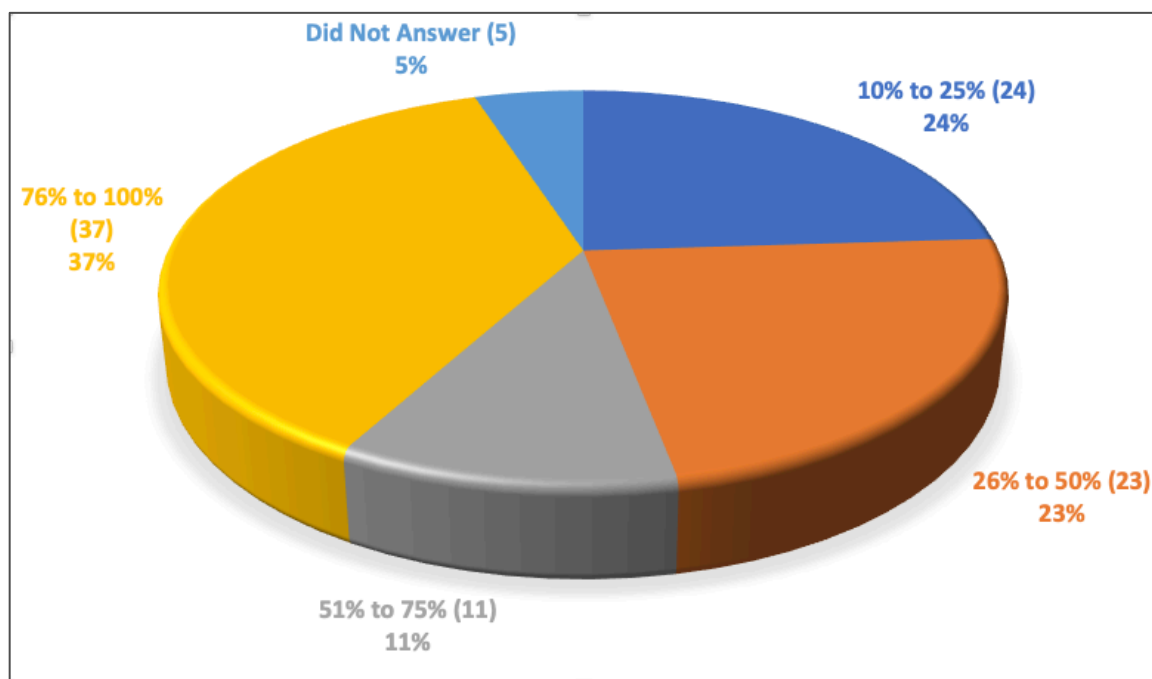
Figure 10: Percentage of Teaching Schedule with a Photography Focus.

Participants identified a variety of paths describing how they came to teach photography (see

Table 3). 29 participants earned a degree in photography, graphic design or other art related field,

with 17 participants training to teach art specifically. 15 participants identified a natural

transition for them, discussing how they had naturally obtained the position when due to an

opening in the district, or a request to have photography added to their schedule. Similarly, 11

participants began teaching photography after creating a photography course for their school or

district. 3 participants indicated that they were trained in both photography and art education

while 13 participants identified as career-changers who first worked as a professional

photographer or artist in a related field. 4 participants opted for a Career and Technical

Education (CTE) path which allows professionals to use their experience toward obtaining a

teaching license. Only two participants indicated having no training at all.

How Participants Came to Teach Photography	Number of Participants (89 out of 100 participants responded)
Earned a degree in photography, fine art, graphic design or other art related field	29
Trained as an art teacher	17
Trained in both photography and art education	3
Was a natural transition: included in teaching schedule, requested when open, someone retired, moved to new school	17
Created a new program or course in photography	11
Taught another subject first then switched to photography	2
Career-changers (from working professionally as a photographer, graphic designer, illustrator, etc.)	13
Opportunity to teach through Career and Technical Education (CTE) where related experience can count toward licensure	4
No training at all	2

Table 3. Paths describing how participants came to teach high school photography.

A photography teacher from Massachusetts explains:

> Just like they say that you should be an artist first before you become an art teacher, well, I kind of feel the same way about photography education. One should be trained in photography first before becoming a photo teacher. I work with really great art teachers who teach the painting/drawing/sculpture/ceramics classes and it is so clear that they just don't "get" photography. You can have amazing photographs (such as 'Nan one month after being battered', Nan Goldin, 1984) that break the rules of good composition but are still deeply affecting in a way that a lot of non-photo art teachers just don't understand. Perhaps they are too used to dealing with the principles and elements of design and material & technique that they just aren't as fluent in visual literacy themselves. (Massachusetts Photography Teacher, Questionnaire Response, August 18, 2018)

Participants were also asked if visual literacy was included in their preparation, whatever form it may, or may not have taken. Of the 100 participants, 29 indicated that visual literacy was

included in their preparation, 40 indicated that it was not included in their preparation, 12

indicated it was included in their visual art related coursework, two indicated it was included

only in professional development and one participant was unsure.

Participants: Interview Selections

Five interview participants were selected from those who indicated willingness to

participate on the survey/ questionnaire. Of the 100 survey/ questionnaire responses, 25

participants indicated that they would be willing to interview. A number of factors were

considered when selecting the five participants from the 25 possible. Six of the 25 I knew

personally and were removed from consideration. The remaining teachers were first sorted by the

percentage of their teaching schedule spent teaching photography with effort made to interview

those who spent as close to 100% of their time teaching photography as possible. Selection was

then narrowed to include a range of geographic areas with consideration given to teaching

experience and school demographics. The table below provides a snapshot of the interview

participants and the categories used to assist with selection (see Figure 12).

Geographic Location	Years Teaching	Years Teaching Photography	% of Schedule Teaching Photography	Diversity of Student Population	% of Students on Free or Reduced Lunch	Community
California	10	10	80	3	Unknown	Exurban
London, UK	28	18	100	2	25-50	Urban
Massachusetts	25	20	100	1	50+	Urban
Michigan	2	2	100	3	50+	Suburban
New Jersey	17	6	50	3	Less Than 10	Suburban

Figure 11. Interview Participants. Overview of participants and the descriptors used to assist with selection.

Curricular Influences

Regarding visual literacy and its inclusion in high school photography curriculum, a high school teacher from Massachusetts remarked, "I think it's the most important thing I teach" (Massachusetts Photography Teacher, Questionnaire Response, August 18, 2018). Similarly, a teacher from Washington agrees, "visual communication is and always has been the single most common and effective communication system in the world" (Washington Photography Teacher, Questionnaire Response, August 17, 2018). When inquiring about what influences high school photography teachers whether or not to include visual literacy in their curriculum, participants cited a number of indicators including their own personal experiences and teaching philosophies, the needs of their students, their school or district, and state and/or national curriculum standards.

Category	Influences	Number of Participant Responses
Teachers' Personal Experiences	Personal choice/ based on personal experiences	28
	Photographers and Artists (historical or contemporary)	17
	Teacher training programs / graduate school	9
	Art or photographic history	5
	Museums (collaborations, exhibitions)	4
	Facebook (social media/ professional learning networks)	3
	Online resources	1
	Research	1
Students	Student needs, interests, level	22
	Colleges (collaborations and/or curricular alignment)	3
	Jobs/ employment skills	2
	Society/ contemporary culture	5
	Current events	4
	Visual culture	4
	Colleges (collaborations and/or curricular alignment)	3
	Jobs/ employment skills	2

	Professionals, peers, colleagues, other teachers	9
Schools and Districts	Curriculum (college board exam rubrics, international baccalaureate)	7
	School/ county or district learning outcomes	6
	Art Education texts, books, publications	4
	Administrators	1
Standards	Standards	7

Figure 12. Influences on Teaching Visual Literacy. Participants identified various influences on their practice and implementation of visual literacy or its inclusion in their curriculum. Influences were grouped into four main categories: Teachers' Personal Experiences, Students, Schools and Districts, and Standards.

Teachers' Personal Experiences

As individuals, each participant has taken their own unique path towards teaching photography, as such, their perspectives were varied. When articulating their own experiences, philosophies and influences on the inclusion of visual literacy in their classrooms their personal choices were highlighted as being an important and necessary factor. Participants were asked directly via the survey/ questionnaire to identify who or what influences their practice and implementation of teaching visual literacy or its inclusion in their curriculum (See Figure 12). Participant responses indicate that the vast majority of teachers have control over if and how they are teaching visual literacy within their own classrooms, only three expressed that it was directed by their school, district or county. In addition, only two participants cited that their curriculum and content was directed by government regulated learning outcomes. A teacher from Massachusetts commented:

> The fact that if it was left out, I would be cheating my students of the importance of photography. How could you not teach about meaning, context, and interpretation when talking about photography? It is a communicative event. That is its purpose.
>
> (Massachusetts Photography Teacher, Questionnaire Response, August 18, 2018)

In agreement, a photography teacher from California describes "I think it's always important to keep visual literacy active in the classroom daily. Every little bit helps the students' knowledge in becoming better writers, better thinkers and better communicators" (California Photography Teacher, Questionnaire Response, August 27, 2018). Similarly, a photography teacher from Massachusetts believes that "everyone should incorporate visual literacy. It is an integral part of understanding the arts and how to create, read, analyze, and connect art and our world around us" (Massachusetts Photography Teacher, Questionnaire Response, September 24, 2018).

Teachers also expressed a sense of empowerment by having enough control over what they teach that their own personal choice and experiences greatly influence how and what they are teaching. A teacher from Maryland explains what influences them most in the practice and implementation of visual literacy in their curriculum:

> The desire for students to be aware, to actively observe, to consider what is being suggested or shown through photographs. To understand that most "great" photographs do not happen by chance, but are created through careful consideration, practice and close observation. (Maryland Photography Teacher, Questionnaire Response, September 20, 2018)

Participants were clear in their desire to include visual literacy in their curriculum based on their own experiences while addressing student need for its inclusion.

Professional Photographers as Inspiration

When asked to identify the photographers, images, bodies of work, or popular media they usually reference in their classes when teaching visual literacy, photography teachers identified a plethora of resources. Participants named 191 distinct photographers and another 40 resources or

groups of photographers/ photographs they used when teaching visual literacy. Of the 191 named

photographers, 42 had two or more mentions. Of the 42, only four were African American, one

Brazilian, two French, two British, one American of Swiss decent, one Canadian of Armenian

descent, one American of German decent, one American of Latvian decent, one American of

Luxembourgish decent, and one Kenyan. Of these 42 photographers, five are publicly known as

members of the LGBTQ+ community.

The top twelve photographers are listed in the graph below (figure 13), along with their

nationality, time period and keywords to describe their work (for a complete listing of all 191,

please see Appendix I).

Photographer	Number of Participants	Nationality	Time Period	Key Words
Ansel Adams	17	American	1902- 1984	Landscape
Dorothea Lange	14	American	1895- 1965	Documentary Photojournalism
Annie Liebovitz	10	American	1949- Present	Contemporary Portrait
Sally Mann	9	American	1951- Present	Contemporary Portrait Landscape
Henri Cartier-Bresson	7	French	1908- 2004	Humanist Candid Street Photography Decisive Moment
Gordon Parks	7	American	1912- 2006	African American Glamour Civil Rights Documentary Photojournalism
Cindy Sherman	7	American	1954- Present	Conceptual Portraits Contemporary Women Stereotypes
Robert Frank	6	Swiss- American	1924- Present	Documentary The Americans Contemporary
Diane Arbus	5	American	1923- 1971	Portraits

				Marginalized People
Richard Avedon	5	American	1923- 2004	Fashion Portraits
Walker Evans	5	American	1903- 1975	Photojournalist Farm Security Administration Great Depression
Edward Weston	5	American	1886- 1958	American West Still Life

Figure 13: Photographers Identified by five or more Participants.

36 participants commented that they include many photographers but didn't list them specifically, 14 participants indicated that they include contemporary photographers, 11 include historical photographs, and seven indicated that they make an effort to include a diverse range of photographers (including women, people of color, from various geographic locations, etc.). Four participants suggest that photography students should also study artists working in other media and cite artists such as Frida Kahlo, and Kehinde Wiley. Seven participants also cited use of the New York Times Lens blog which often features photographers and subject matter from a vast range of backgrounds and contexts.

Interview participants all encourage students to search for and explore the work of photographers they find personally interesting. Most often interviewees showcased photographers to assist in teaching lessons rooted in technical skills or concepts. For example, when starting to learn about how to use a flash, the work of Harold Edgerton would be highlighted and used as an exemplar. Interview participants carefully choose photographers and attempt to include a variety of images from a range of time periods, styles and contexts. The interview participant from New Jersey explained that she tries to choose images the students have seen before, in a text book, in their lives outside of school, on YouTube or in a music video in order to get the students interested and engaged with the works in a more critical way.

Interview participants were asked about how they selected photographers to include when teaching visual literacy. Many participants commented that they make an attempt to introduce students to photographers from all over the world, who have various backgrounds, and work in a variety of contexts. A photography teacher from London explained:

> It's intentional and it's hard work as well. Because you know it's limited to our own knowledge and experience. It requires us to be quite sensitive to those issues and to do lots of our own research because it's quite easy to just work with what you know. I have my own favorite and my own taste, and practice that I like but I make a conscious effort to try and understand alternatives. I try and make sure we look at lots of female photographers, for example. We look at work from all over the world but it's quite hard to access some of it. The publishing industry, for instance, isn't that good. You know there are a few surveys of African photography but they're not very easily available that there's not a lot published about photography practice across the world and there are quite expensive coffee table books as well. So, the internet proves a really useful resource for that. You can find a fair bit online and then compile something together…. It's a constant challenge to keep up to date and keep questioning your own reasons for or doing things.
> (London Photography Teacher, Interview, September 10, 2018)

Addressing Student Needs

When addressing student needs, teachers described those needs in a variety of ways from preparation for a University or future art practice to imparting knowledge and skills for assisting students in broadening their worldview. A teacher from Australia remarks:

> The Visual Arts curriculum and syllabi explicitly addresses visual literacy in three areas of artists practice, frames and conceptual framework. We are advised from University on

how to use these to engage our students in the visual analysis of images (Australia

Photography Teacher, Questionnaire Response, October 5, 2018)

A photography teacher from Virginia comments that students not only need but are interested in

learning visual literacy; "It has become increasingly a frequent discussion, the students are very

interested in understanding and making meaning out of what they see on a daily basis" (Virginia

Photography Teacher, Questionnaire Response, September 24, 2018). Another teacher

comments:

We need to educate our students on the importance of being able to interpret art by using

the information given in any particular image. It informs their art making and the way

they see themselves in the world. (New Hampshire Photography Teacher, Questionnaire

Response, September 26, 2018)

A photography teacher from British Columbia, Canada, reflects on the need for students to be

able to communicate with intention through photographs. Visual literacy is "crucial to get

students to think about why they're making a photograph rather than focusing solely on the how

of taking a photograph" (British Columbia Photography Teacher, Questionnaire Response,

October 1, 2018).

Participants discussed the importance of assisting students in understanding the

communicative intention of a photograph as intended by the creator. As such, participants

explained how they perceive students experience with visual literacy as extending beyond the

photography classroom. This included discussion about alignment with other subject areas to

foster the transfer of knowledge regarding visual literacy to other aspects of student lives. One

participant commented, "I think a shared metalanguage with other subjects like English and

History who also utilise visual literacy would assist in the depth of students understanding of

how to analyse an image" (Australia Photography Teacher, Questionnaire Response, October 5, 2018). Another participant expressed the belief that "visual literacy is valued within the art education community but is barely considered by other core or elective disciplines. I wonder if this is a problem?" (Massachusetts Photography Teacher, Questionnaire Response, September 24, 2018). When describing this concern about the value of visual literacy within the schools, another photography teacher comments on the department structure:

> Some photography programs are in the art department (mine is...) and some are part of the tech ed department. I think visually literacy is more of a focus when it is part of art. In the tech ed department, they can sometimes focus more on technical skills. (Pennsylvania Photography Teacher, Questionnaire Response, September 24, 2018)

However, the importance of assisting students in noticing how visual literacy is applied outside of the photography classroom, a photography teacher from Oregon believes that visual literacy extends to all other classes:

> Visual literacy helps students interpret textbook photographs; kids get reminded of certain things in their in-class readings and want to convey similar messages within their photographs. I'm hoping—if I do it right—that they will find ways to connect their passion for photography in all elements of their lives." (Oregon Photography Teacher, Questionnaire Response, September 22, 2018)

While another participant agrees, emphasizing visual literacy as a way to assist students in developing critical thinking skills in order to make informed decisions that directly affect their lives:

> I wish critical thinking was taught in all subjects in a very open and explicit way. Especially now with the attacks on media and free press and the hateful speech and tone

coming from the White House. High school students are just maturing into voting age, it

is so important (now more than ever) that they vote with intelligence, with a critical eye,

with the ability to understand the rhetoric or the political theater. (Massachusetts

Photography Teacher, Questionnaire Response, August 18, 2018)

A participant from South Carolina agrees:

It has an easy connection to the Internet, the news media and a student's daily life.

Students are taking pictures and videos all day long while they record their day and life.

They also treat photography different than most adults. Most adults preserve a printed

image as a tangible artifact for themselves in a private collection of images. The youth

take thousands of photos, broadcast them to the world and then delete them with no care

for the preservation of that tangible artifact. That's a huge shift in the role and purpose of

photography. (South Carolina Photography Teacher, Questionnaire Response, September

20, 2018)

While a photography teacher from Massachusetts concurs that "especially with social media

(Instagram, snapchat) being so prevalent in these lives, it is very important for these children to

learn how to be visually literate (Massachusetts Photography Teacher, Questionnaire Response,

September 20, 2018).

In alignment with the data in Figure 12, when participants were asked to describe the

ways their lived experiences impacted their teaching of visual literacy, 83 participants cited a

number of specific examples. The greatest amount of responses cited their professional

experience as photographer (15) and experiences as an artist (6) as impacting their teaching of

visual literacy. Similarly, eight responses indicated importance of modeling professional

behavior for their students through exhibiting their work in galleries and exhibiting professional

behavior on social media. Five responses had to do with technology (look up specifics). Eight

participants cited the lasting impact images have had on them personally citing images of 9/11

and hurricane Katrina resonating with them long after the events themselves. Three participants

cited travel as an experience that assists in their teaching of visual literacy, with five participants

citing their knowledge of images in part due to frequent museum and gallery visits.

Participants also cited classes they took, their own education (6), and their own personal

interests (4) as impacting their teaching of visual literacy. Four participants cited their

experiences as white women, and one as a member of the LGBTQ community as directly

affecting how they teach visual literacy. Two participants made it a point to mention that they

talk to their students about how lived experiences influence the interpretation of images.

When asked to identify their most pressing concerns about teaching visual literacy, along

with what they believe the most pressing needs of their students are, a total of 89 participants

responded (see Table 4). The most common response, with 36 mentions is the ability to decode

images, including the skills to read, analyze impact, interpret, identify context, of images and

advertisements.

Topic	Number of Participant Responses
Decoding images: read, analyze impact, interpret, identify context, influence, advertisements	36
Create images with intent: communicate ideas visually, cultivate own visual voice, communicate original ideas	17
Motivation: getting students interested, willingness to understand more deeply, overcome apathy for school	12
Maintain focus: sustain attention, cultivate patience	9
Ability to both create and read images	8
Balance technical skills with visual literacy	7
Foster critical thinking	5
Overcome language barriers and literacy skills as they pertain to reading and writing	5
Learn the language of photography	3
Engage in active listening and talking	3

Lack of time	3
Administrators not understanding importance in schools focused on legislation and testing	3

Table 4. Participants most pressing concerns about teaching visual literacy.

Ultimately, photography teachers recognize the importance of exposing students to a variety of professional photographers to assist in their teaching of visual literacy. A photography teacher from Idaho commented:

> the more photos students study and analyze the better they become as photographers. I have them do a short Photo Journal each class where they analyze and make predictions about photographers and photos; it is one of the most important elements used for learning in my class. (Idaho Photography Teacher, Questionnaire Response, September 20, 2018)

As displayed in Table 3 above, following the ability to decode images, high school photography teachers identified the ability to create photographs with intent that communicate ideas visually, cultivate the students own visual voice, and communicate original ideas. As the photography teacher from Idaho explains, the link between being able to analyze photographs and learning to create images with content and meaning, emphasizing the importance of creating images as part of becoming visually literate.

Standards

Figure 12 shows seven teachers indicated that their state (or national) standards influenced their decision to include visual literacy in their curriculum. When asked specifically about the standards they are using and the relationship of those standards to visual literacy, responses indicated that the standards used most often are the National Core Arts Standards (21 responses) with only one participant using the National Media Arts Standards. 32 participants use state-specific standards, with two participants from Virginia citing use of county-specific

learning outcomes. In addition, six use career and technical education standards, and one participant uses the International Society for Technology in Education (ISTE) standards. Two teachers from private or independent schools stated that they created their own standards, and five participants stated that standards were not applicable because they teach at independent schools. Teachers working in countries other than the US cited curriculum frames, standard curriculum, specific syllabi or exam board authorized courses as similar guides. Out of the 100 participants, three were unsure and eight do not use any standards, 18 participants neglected to complete this prompt.

The eight participants not using standards weren't the only responses to indicate a sense of apathy when it comes to applying curriculum standards in their teaching practice. A teacher from Massachusetts comments, "I draw from my own experience, not out of arrogance, like I know better than standards, but just out of practicality, since no one asks or cares" (Massachusetts Photography Teacher, Questionnaire Response, September 20, 2018). While a teacher from California states, "I try desperately to ignore the standards, as they are very vague and generally not useful except to put on the wall for administration" (California Photography Teacher, Questionnaire Response, August 21, 2018). While a few teachers shared the sentiment of another Massachusetts teacher explaining, "honestly, I know the national and state standards but never look at them anymore. If you are a good photo teacher who is teaching photography in a holistic way, you are hitting all those areas and more anyway" (Massachusetts Photography Teacher, Questionnaire Response, August 18, 2018). One Massachusetts teacher had a more technical explanation:

> I use the state and federal standards for visual art, these are the standards I am required to use by law. My job is to address all the standards in a year/course of study with my

students. The relationship part of this question does not make sense to me. The

relationship of anything I teach to the standards is simply: which standards am I meeting,

how and why is this important. (Massachusetts Photography Teacher, Questionnaire

Response, August 18, 2018)

When asked to identify the relationship between the standards and visual literacy, teachers

included specific standards where they felt visual literacy was addressed, for example:

- Anchor Standard 5: I can interpret and evaluate the meaning of an artwork

- Role and Development of the Visual Arts: 3.1 Identify contemporary styles and discuss

   the diverse social, economic, and political developments reflected in the works of art

   examined.

- Role and Development of the Visual Arts: 3.2 Identify contemporary artists worldwide

   who have achieved regional, national, or international recognition and discuss ways in

   which their work reflects, plays a role in, and influences present-day culture

Although visual literacy is not mentioned explicitly in any of the standards identified by

participants, they did express that the National Core Arts Standards have an overarching

relationship where aspects of visual literacy are embedded within the standards. Specifically,

participants identified a connection in the responding, connecting and creating sections with the

strongest alignment in the responding section.

Similarly, a photography teacher from South Carolina noted the connections to their state

standards in comparable categories:

I use the current South Carolina Visual and Performing Arts Standards for Visual Art,

specifically the Responding and Connecting Processes. These deal with evaluating and

communicating about the meanings of works of art and identifying the role of visual art

in history and world cultures. (South Carolina Photography Teacher, Questionnaire

Response, September 2, 2018)

Very few responses included making artwork, however, one teacher from Georgia commented:

In creating, that they can develop work through inquiry, that they can assess the work of

other photographers and assess the work they are doing through analysis. It is important

that they can manipulate and enhance through Photoshop. (Georgia Photography Teacher,

Questionnaire Response, August 20, 2018)

Although one interview participant with professional experience but no teacher training did

comment that he wasn't sure what standards were or if his state had any. Upon comparing the

questionnaire responses indicating teacher preparation or training with the use of standards, 32

participants were identified as having some training in either teaching or visual literacy and also

use specific standards. 13 participants did not receive training and also do not use any standards.

Overall, there isn't a significant correlation between the preparation (or lack thereof) and

teachers' perceptions regarding visual literacy and its relationship to curriculum standards.

Pedagogical Considerations

Teaching Visual Literacy

99 of the 100 participants indicated that they teach visual literacy. 74 participants embed

visual literacy in their lessons and 24 participants teach visual literacy explicitly where the

acquisition of visual literacy is the main goal of the lesson or unit. One participant indicated that

they teach visual literacy both explicitly and embedded in their lessons, and one participant

stated they were unsure of the meaning of visual literacy and therefore do not know if they are

teaching it. As a note, the NAEA definition of visual literacy was included just above this

question as a frame of reference.

When asked to identify the strategies, approaches, or resources participants employ when teaching visual literacy, it was clear that all of the participants use some form of dialogic pedagogy when addressing visual literacy in their classroom (see Table 5). Critique was the most used (93 participants), following close behind was collaborative discussion (80 participants), formal art analysis (79 participants), and engaging with artists statements (72 participants) topped the list.

Teaching Strategies and Resources	Number of Participants
Critique	93
Collaborative Discussion	80
Formal Art Analysis	79
Writing or Reading Artist Statements	72
Visual Thinking Strategies	67
Socratic Questioning	24
Aperture On Sight	18
Textbooks	16
Close Reading	14
Photovoice	10
Library of Congress Visual Literacy Exercise	5

Table 5. Teaching strategies and resources used to teach visual literacy in high school photography classrooms. Dialogue-based strategies in gray.

Although the options listed in Table 5 above were provided for participants on the survey/ questionnaire, participants were instructed to check all that apply. Additionally, participants were able to include additional strategies, approaches, or resources they employ when teaching visual literacy. The responses were varied, and included an array of resources including documentaries, YouTube videos, internet resources. Other responses included: a scavenger hunt, lessons created by the instructor, videos created by the instructor, Lynda.com, teacher made presentations, collections of printed and digital images, Australian related websites, projects that embody visual literacy, Photoshop lessons using visual literacy, presentations on professional photographers, a

lesson that asks students to mimic the style of a photographer and specifically,

photopedagogy.com, a website created by one of the interview participants.

Dialogue: All participants employ dialogic pedagogy when teaching visual literacy

All participants indicated that they use at least one form of dialogue to engage students with visual literacy. This finding is based on the responses from the survey questions where Visual Thinking Strategies, critique, collaborative discussion, and Socratic questioning are identified as being rooted in dialogic practice. Noting that formal art analysis, Photovoice and others may also include elements of dialogue, the four strategies identified imply direct use of dialogic practice.

Often, multiple strategies were used (See Figure 14). Of the 100 responses, 14 participants used four of the strategies, 42 used three strategies, 35 used two strategies, eight used one, and only one person neglected to answer the prompt.
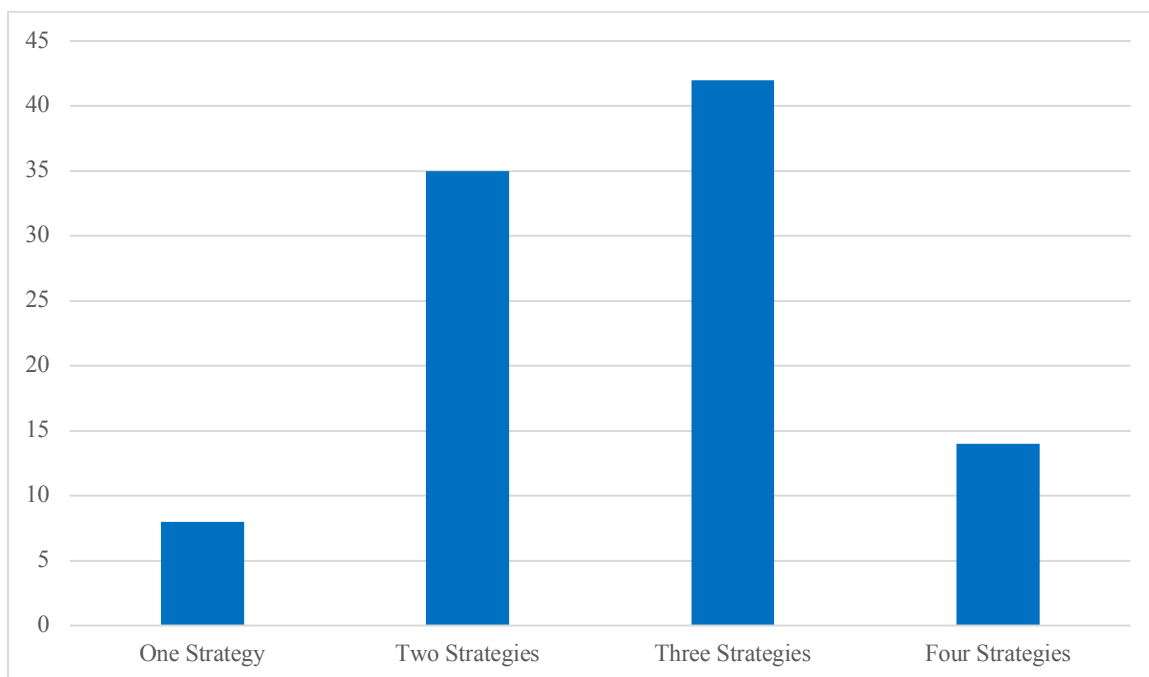
Figure 14: Number of participants using dialogue-based strategies to teach visual literacy.

Interview participants described the ways in which they use in dialogic pedagogy to engage students with photographs ranging from showing images and using Visual Thinking Strategies or similar prompts to starting with a provocation that questions the status of photographs in any given context. Having students present on a professional photographer was a common way to get students engaged with visual literacy by verbally discussing the works with their teachers and peers. A photography teacher from Massachusetts uses the presentation on a professional photographer as an early experience discussing photographs. Students choose a photographer they are interested in and conduct a 20-minute presentation, including around 20 or 30 slides in the voice of the professional photographer (historical or contemporary) while encouraging others to ask questions about the work. Although this represents one approach, presentations were used in conjunction with other pedagogical strategies. A photography teacher from London commented:

> We might discuss one image together or we do that in smaller groups and then feed back
>
> to the others. Or kids might make presentations about things they've researched to the
>
> rest of the group to feel like experts. We have lots of one-to-one conversations between
>
> teacher and student. The students are encouraged to go off and develop their own
>
> solutions to things and do their own research rather than everybody doing the same thing
>
> at the same time. So, it's a lot of discussion. Just keep questioning. What does that mean?
>
> Have you looked at this person or that person? I've got photobooks. 'Oh that reminds me
>
> of so-and-so' and I rush to the office and get the photobook and we'll talk about that.
>
> (LDN Photography Teacher, Personal Communication, September 10, 2018)

A photography teacher from California, uses both questioning, and gallery walks as ways to facilitate both one-on-one and class discussions. He emphasizes that critiques can be difficult

for students who are not used to the process, and to assist them in gaining comfort in discussing their work and the work of others he begins by questioning, then has the students fill out a written form to help students plan ahead of time, followed a gallery walk format:

> I do what's called a gallery walk. I have them fill out a form and part of the process is you have to talk with somebody that you don't always talk to. They try to talk to their friend that sits next to them, I just say 'no' you talk to him or her all the time go talk to somebody else. And I say here is a sort of frame for their conversation. I say one thing I like about your picture is… then they can sort of you know that's sort of a way to start a conversation. On a positive note. (CA Photography Teacher, Personal Communication, October 2, 2018)

Similarly, a photography teacher from New Jersey commented that she liked facilitating discussions after students took photographs because it provided a place to start a conversation, while fostering peer interaction through commonality:

> I think that it's good, I think to break the barriers when they start talking about the pictures in general…. It's more relaxed when they start opening up and showing their pictures…to see them interacting with each other regardless of how well they did on the prompt or project, they have to be able to speak about their work and be passionate about it" (NJ Photography Teacher, Personal Communication, October 3, 2018)

All five of the interview participants discussed scaffolding the experiences when facilitating class discussions, beginning with ways to ease them into the process so they are more comfortable whether it be beginning with one-on-one or conducting presentations the teachers stressed the importance of engaging in dialogue about images while being aware of the initial experiences emphasizing strategies for encouraging a positive experience for the students. A

photography teacher from Michigan described his approach as projecting one or two images each day and probing students to discuss the images in terms of asking if they like it, followed by asking 'why'. If he has contextual information about the image or photographer he will interject the information and facilitate and encourage students to identify how the context visually manifests itself in the work. He strives to cover technical aspects while offering an opportunity for students to connect and explore personal meanings from the work.

Concerns

Participants expressed some concerns that effect their ability to teach visual literacy in high school photography classrooms. Time was a distinct concern, "not enough time to do it all. Hoping to get them thinking and really working on the awareness piece of the images they are seeing/ choosing/ working with, creating" (Massachusetts Photography Teacher, Questionnaire Response, September 24, 2018). Similarly, a photography teacher from London states, "my perception is that visual arts teaching is still dominated by techniques and processes and could do with a greater emphasis on VL and art/photo history" (London Photography Teacher, Questionnaire Response, August 27, 2018). Other than having a lot to cover in a limited amount of time, participants expressed a lack of clear path for how to best teach visual literacy. A teacher from Massachusetts commented, "I believe there is a great need to teach visual literacy but it is like the wild west, there seems to be little consensus about what should be taught and how it should be presented (Massachusetts Photography Teacher, Questionnaire Response, September 26, 2018). While a teacher from Virginia expressed the need for a clear definition and corresponding guidelines (Virginia Photography Teacher, Questionnaire Response, September 6, 2018). Others expressed difficulty, "its not easy to teach as it's not widely understood/

recognized as important" (Massachusetts Photography Teacher, Questionnaire Response, September 20, 2018).

To assist in the teaching of visual literacy, participants expressed a need for professional development specifically geared towards visual literacy. Interview participant from London explained that teachers were continually asking him for assistance in teaching photography. With a colleague, he created a website specifically designed to assist teachers in creating photography curriculum around ten threshold concepts. The website includes a comprehensive page on photography literacy.

Creative and Practical Applications

The table below describes how the 100 participants rated the importance of various aspects of visual literacy. Using a Likert-scale, one was designated as very important and five as not important. The number of participant responses are indicated below (Table 6).

Aspects of Visual Literacy	1 Very Important	2	3	4	5 Not Important
Design and create meaningful photographs that communicate original ideas	89	7	1	1	2
Ability to think visually	87	8	3	0	1
Analyze composition, formal and technical aspects of a photograph	75	19	4	2	0
Appreciation of photographs	75	18	5	2	0
Ability to interpret, decode, and comprehend photographs within the cultural context the image was created	62	29	6	2	1
Evaluate photographs and their sources	60	25	12	2	1
Use photographs effectively in various contexts	60	23	14	2	1
Understand the ethical, legal, social, and economic issues surrounding the creation and use of photographs and access and use the photographs ethically	59	26	11	1	3

Use of contemporary photographic practices (such as mobile devices, social media, digital manipulation software)	51	27	14	3	5
Use conventional or traditional photographic practices (such as manual camera functions, darkroom printing)	46	21	20	6	7

Table 7: Participant Ranking of Importance on Aspects of Visual Literacy.

Of the 100 photography teachers who participated in the survey/ questionnaire, 89 indicated that the ability to design and create meaningful photographs that communicate original ideas as very important.

Visual Sensitivity

Table 5 indicates that 87 participants responded indicated the ability to think visually is very important. Interview participant from London described the ability to think visually as visual sensitivity:

> I've taught many students who are visually highly literate that aren't necessarily literate
>
> in other ways. It's a more sophisticated way and when it comes to explaining how they've
>
> made something that wasn't so -- about something really difficult, but it doesn't prevent
>
> them doing it visually in an extremely sophisticated way. (London Photography Teacher,
>
> Interview, September 10, 2018)

The interview participant from Michigan identified that he has difficulty explaining things in words, in order to assist with our discussion, he sent images to show how visual literacy is enacted in his classroom. Additionally, he sent a short description and the following images (see Figures to assist in communicating how he understands visual literacy:

> The first two photos were created as a result of the church massacre that took place in
>
> Charleston, South Carolina in 2015. That summer the media became obsessed with the
>
> word black. Shortly after there was a national debate about the Confederate battle flag.

The third photo, entitled *Red, White and Blue* is a result of police violence against people of color. These photos are my way of communicating a point without using words and that's exactly what I'm helping the students do as well. (Michigan Photography Teacher, Personal Communication, October 1, 2018)

Figure 15: Images by a Michigan Photography Teacher. Photographs created as a result of the church massacre that took place in Charleston, South Carolina in 2015. Used with permission. (Michigan Photography Teacher, Personal Communication, October 1, 2018)

Figure 16: Photograph created in response to national debate surrounding the confederate flag. Used with permission. (Michigan Photography Teacher, Personal Communication, October 1, 2018)

Figure 17: Red, White and Blue. Used with permission. (Michigan Photography Teacher, Personal Communication, October 1, 2018)

The images and description from the Michigan photography teacher exemplify the notion of visual sensitivity as a manifestation of visual literacy as described by the interview participant from London:

> …the ability to write coherent visual texts. To create a new text that makes sense. But I thought there was another aspect. … - a kind of recognition that some people are more sensitive to the visual than others and also that this sensitivity is not easily translated into words. I think that's missing from pretty much all the definitions of visual literacy I've come across anywhere. The idea that the relationship between the visual and written or oral text is complicated and that sometimes you may respond instinctively or might feel some responsiveness to something visually you literally can't articulate. I would use the word 'ineffable' you can't translate this feeling into words because it only exists in the visual. (London Photography Teacher, Interview, September 10, 2018)

Summary

The chapter begins with an overview of demographic data as perceived by the study participants, including school size, diversity of student body and geographic location. This chapter provided an overview of the data, including 100 survey/ questionnaire responses and five semi-structured interviews. The data were organized into categories of description and further sorted into three main themes: *Curricular Influences*, *Pedagogical Considerations* and *Creative Applications*. Of note, teachers' personal experiences had the greatest influence on their teaching of visual literacy and its' inclusion in their curriculum. In addition, dialogue-based strategies were the most widely used in participants teaching of visual literacy. Participants also stressed the importance of applying visual literacy skills in through creating photographs and identified that awareness of individuals' application visual sensitivity was important to their teaching.

Chapter Five: Discussion and Interpretation

This chapter provides a discussion of the outcome space, generated from the results of a phenomenographic study that explored the perspectives of high school photography teachers regarding visual literacy. As a frame, the categories were organized into two parts: structural and referential aspects of experience (see Figure 18). The structural aspect is described as teachers' influential experiences which includes: photographic training and teacher preparation, lived experiences, identifying student needs, along with standards and school/ district requirements. The referential aspect is described as teaching visual literacy which includes: curricular choices, creative applications, resources, identifying student needs, visual sensitivity and pedagogy, including dialogue-based instructional strategies.

Structural → Teachers' Influential Experiences → Lived Experiences, Schools and Districts, Standards, Student Needs, Training and Preparation

Referential → Teaching Visual Litearcy → Creative Applications, Dialogue -Based Strategies, Pedagogy, Resources, Student Needs, Visual Sensitivity
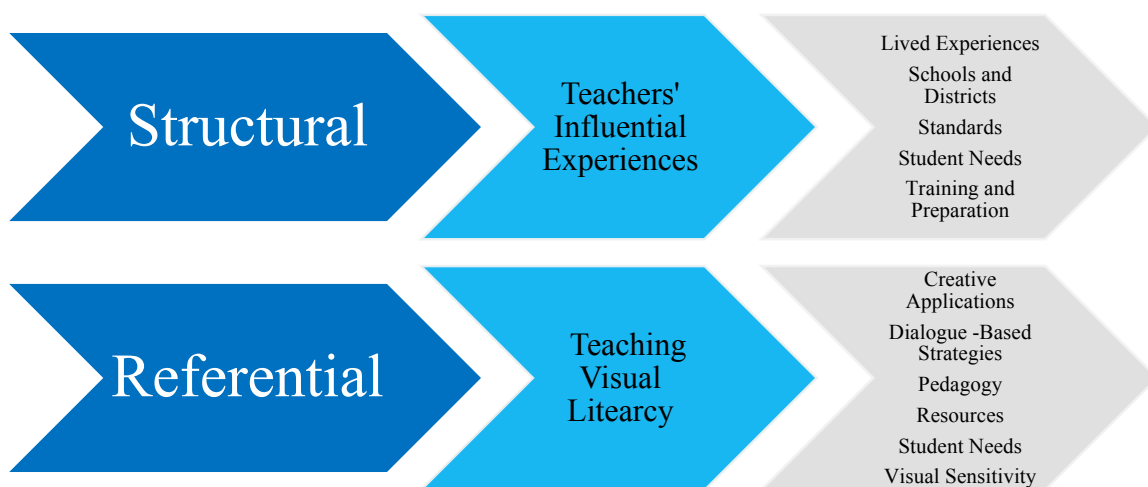
Figure 18. Structural and Referential Aspects of Experience.

To further describe the outcome space, Figure 19 displays the two areas that lay in between both structural and referential aspects as student needs and curricular choices. These two areas are both continually influencing and are influenced by teachers' experiences and their teaching of visual literacy.
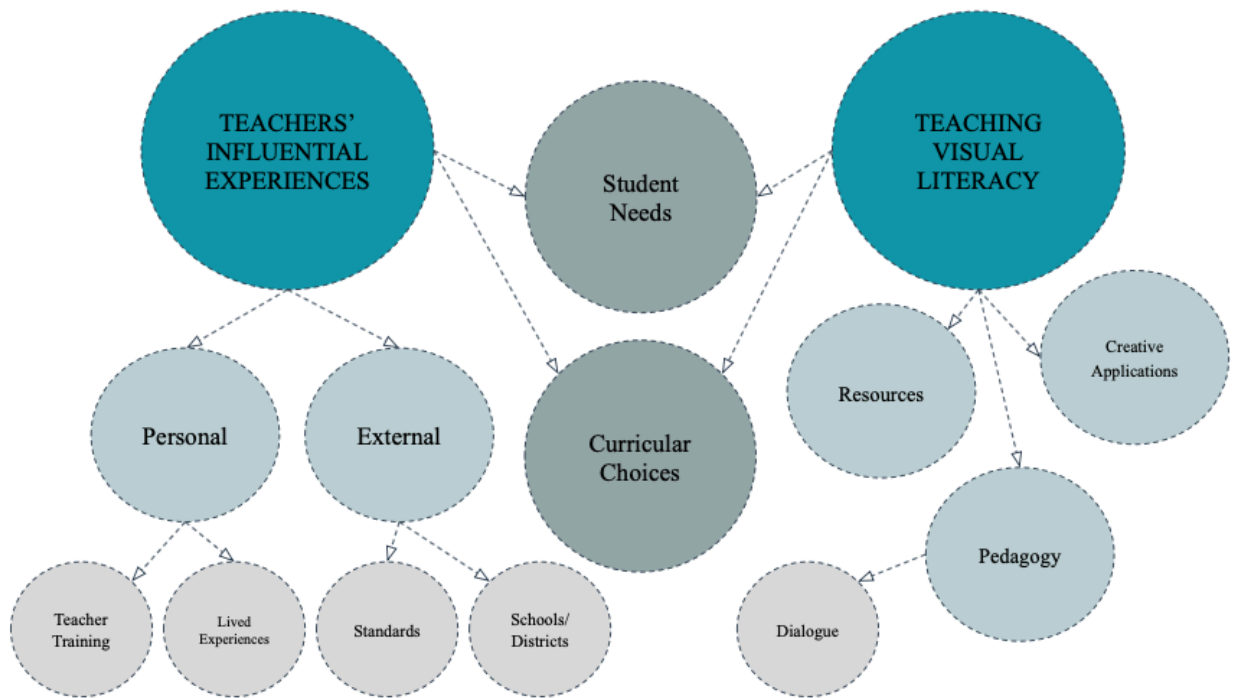
Figure 19. Outcome space. Major topics of this chapter organized by structural and referential aspects of experience.

Though this study generated many points of interest, this chapter will focus on the following five discussion topics:

1. Participants' Lived Experiences Directly Influence Their Teaching of Visual Literacy

2. Curriculum Standards have Limited Impact on the Teaching of Visual Literacy

3. Participants Employ Dialogue-Based Strategies when Teaching Visual Literacy

4. Both Analyzing and Creating Images are Important Aspects of Visual Literacy

5. Visual Literacy Addresses Students' Needs

Participants' Lived Experiences Directly Influence Their Teaching of Visual Literacy

Consistent with the literature on phenomenography, the experiences of participants are always influential to the ways they experience a phenomena (Åkerlind, 2008). In this study, participants own lived experiences shaped their perspective and understandings of visual literacy. As displayed in figure 19, influential experiences can be broken into two major themes: personal influences and external influences. This section will focus on personal influences will include the participants training and teacher preparation followed by the ways participants describe their lived experiences and the impact of those experiences on their understanding of visual literacy. The external influences, including a discussion of curriculum standards will be discussed in the following section.

Personal Influences: Photographic Training and Teacher Preparation

As displayed in the previous chapter, study participants represent a range of geographic locations, teach in a number of school contexts and work with students of varying demographics. What struck me most about their various paths to becoming a high school photography teacher was that of the 100 participants (89 of which answered this prompt), 13 were career-changers, four came to teach through CTE programs, and 29 earned a degree in photography or a related field. That leaves 17 who were trained to in art education with three additional participants trained in both art education and photography. In addition, there were two people who indicated no training at all. 17 participants indicated that they moved naturally into the position, either through an opening in the district, school change or addition to their teaching schedule, this leads the assumption that they had some training either in education or art education. Additionally, 11 participants indicated the creation of a new course leading to the belief that they had some training, knowledge of, and interest in art education and/or photography in order to create a

curriculum they would ultimately teach. That leaves two participants who taught other subjects before changing over to photography. It is not known whether those two subjects were visual art subjects or not, bearing the assumption that they may have had some training in education.

Participants' Experience	Number of Participants
Experience in photography or related field (degrees earned, professional experience)	46
Experience in education (art education, unspecified or other subjects)	47
Experience in both art education and photography	3
No experience	2

Table 8: Participants' experience: narrowed paths toward teaching photography.

As seen in Table 7, when further sorted we see a more even split between those who have experience in studio (such as photography, graphic design, fine art) practice and applied skills through professional photographic experience and those who have a background in education (art or otherwise). A participant from Michigan highlights the importance of professional experience stating, "Teaching is not my background. I don't have a teaching certificate, just a BFA and 15 years of professional experience. My own experience is flying the ship" (Michigan Photography Teacher, Questionnaire Response, August 25, 2018). This response emphasizes the importance of practical or studio experience in light of lack of training in art education, as stated, it's what's "flying the ship" for that particular teaching context. Although many full time art teachers have a thriving artistic practice, it is not required for high school art (or photography) teachers to have an active creative practice, many continue to create work on a professional level (Graham & Zwirn, 2010). Additionally, many art teachers train or work as artists before transitioning to a teaching career allowing them to continue their studio practice while pursuing a level of financial security (Graham & Zwirn, 2010). Given that coursework in studio practice (such as

photography) does not typically include teacher preparation, the responses by those who have training in education may differ from those who do not due to their own experiences. It's common for teaching artists and art education students alike, to draw from their own experiences and model behavior after those studio teachers they admired.

When asked if they had any training in visual literacy, 29 indicated that visual literacy was included in their preparation, 40 indicated that it was not included in their preparation, 12 indicated it was included in their visual art related coursework, two indicated it was included only in professional development and one participant was unsure. This data indicates a need for visual literacy to be included in the preparation of art education as well as studio education. Given that it is not included in all preparation programs, yet art teachers are including it in their curriculum underscores the importance of visual literacy to art education contexts. For those with a professional or studio background, 12 participants indicated that visual literacy was included in their visual art related coursework. This leads to the question of what about the other teachers? Did they not experience visual literacy in their visual art related courses? Were they unaware of visual literacy being embedded in the coursework, or were the professors not including visual literacy at all?

Considering the NAEA definition of visual literacy, it seems likely that those who had visual arts related coursework would have explored "the ability to interpret, comprehend, appreciate, use and create visual media" (NAEA, 2017, para 2). Depending on the required coursework in various programs, the use of "conventional as well as contemporary and emerging media" (NAEA, 2017, para 2) would be covered "in ways that advance thinking, decision-making, communicating, and learning" (NAEA, 2017, para 2). Although a tall order, based on my own experience, I believe this to be realistic and attainable in higher education settings, the

question then becomes about accountability, that is, who is responsible for covering teaching visual literacy and how do we ensure its inclusion in teacher preparation programs? Given the variety of institutional structures combined with the plethora of paths toward teacher licensure, this is certainly not an easy problem to solve. To conclude whether visual literacy is being addressed in visual arts related coursework, further study would be needed to explore the perspectives of higher education photography professors regarding visual literacy. In addition, exploration of art education preparation programs and their relationship to visual literacy would be helpful in pinpointing the disparities and differences in preparation and praxis in high school photography classrooms.

Personal Influences: Participants' Lived Experiences

Despite the various paths participants have taken toward teaching high school photography, their experiences inform their belief that visual literacy is important to high school photography curriculum. As seen in Figure 12, participants lived experiences have a great impact on how and what they teach. For example, a photography teacher from California explains:

> As a Mexican American born in a US/Mexico border town visual literacy has always been innate in my teaching. I am very aware of the problematic of representation and lack of visual representation. I have always addressed the power play that goes on in the production and distribution of imagery. (California Photography Teacher, Questionnaire Response, September 22, 2018)

While others highlight experiencing September 11th and hurricane Katrina as life events that have directly impacted their understanding and teaching of visual literacy.

> I ask students would they believe something happened if they were not shown the visual proof of the event in order to illustrate the power of photographs, what they can convey

and how they can evoke emotion. Images and videos of 911 and hurricane Katrina aftermath are examples of my own lived experiences that that changed how I viewed the importance of photography and those who document life second by second.

(Massachusetts Photography Teacher, Questionnaire Response, September 4, 2018)

As the response above indicates, the use of news images in teaching visual literacy can help students engage with images in order to evoke emotions and create empathy for others and their experiences. Another Massachusetts photography teacher emphasizes the importance of conversing with students, particularly when their experiences differ to provide greater depth in decoding an image. Identifying how our own experiences impact the ways we see images is a crucial step in our own visual literacy development.

Many of my students were not born or infants during 9/11. The conversation surrounding the visual implications of the images from that day looks completely different because they did not live through the experience. It is always interesting to me to see how my lived experience has changed my experience with photographs. I also think students are a bit desensitized to imagery because they are so saturated with it everyday. (Massachusetts Photography Teacher, Questionnaire Response, September 20, 2018)

In agreement, a Massachusetts teacher explains:

Our lived experiences absolutely impact my teaching of visual literacy. My own experiences in life have altered the way I perceive images and in turn that will be put forth in my teaching. I also discuss this with students and how our own experiences give us bias and real life memories that alter our thoughts about things we see."

(Massachusetts Photography Teacher, Questionnaire Response, September 4, 2018)

Whether in news media, propaganda, or fine art images, examining photographs as a means of communication is an important aspect of daily life. When our experiences are used as a lens through which we apply our skills in visual literacy, aspects of our own background can be most useful. A participant explains:

My experience as a woman and as a member of the LGBQ community have definitely impacted my teaching. Sharing examples of how women have been portrayed visually and the negative and mixed messages communicated by these images. Also showing how images have been used both to help and hurt members of the LGBQ community. (Massachusetts Photography Teacher, Questionnaire Response, September 26, 2018)

Although high school students are influenced by the onslaught of visual imagery, it also affects the experiences of teachers. "As a woman I am personally impacted by the depictions of women in magazines and social media. These images make me feel like my body, face, etc. is not pretty enough" (South Carolina Photography Teacher, Questionnaire Response, September 21, 2018). A teacher from California also impacted by mass media states:

I have been shooting since I was 14 and worked in magazines for a decade. I was a TV addict as a kid, constantly mesmerized by imagery which translated to my desire to create and capture images in order to make sense of the world, to explore the world, to question the world around me, and to remember experiences. (California Photography Teacher, Questionnaire Response, October 2, 2018)

This teacher's awareness of how they are personally affected by the images seen daily is an indication of their own relationship to imagery as well as their own experiences with visual literacy influencing their decision to include visual literacy in their classrooms so that students may also become aware of how they are being informed by the media.

Personal Influences: Relationships with Technology

The increasing accessibility of technology and the use of handheld devices has impacted high school photography teachers in the teaching of visual literacy. When asked to rate the importance of various aspects of visual literacy, 78 participants ranked the use of contemporary photographic practices (such as mobile devices, social media, digital manipulation software) as important or very important compared to 67 who ranked traditional photographic practices similarly. Some teachers are faced with bridging the gap between their own experiences with technology and the experiences of their students.

> I'm 42 so my lived experiences include a public school education without the existence of the internet among many other things compared to today's young people. I think that when our students are being inundated with an endless stream of media, that makes visual literacy more important than it was 25 years ago when the flow was limited. I think visual literacy is something that I sort of had to pick up and learn on my own as the pace quickened and I don't think we can afford as a society to have our young people just get this on their own. They need to be able to interpret what they are looking at and then to be an effective artist, communicate their creations. (South Carolina Photography Teacher, Questionnaire Response, September 20, 2018)

Even for those teachers who grew up in a time when technology was prevalent, it still poses a significant challenge when teaching visual literacy in high school photography classes.

> I grew up when the world of technology was changing rapidly, like most older millennials. It can still be daunting to feel like you're on top of the newest thing (before it's gone and something else replaces it), but it's the world we live in, and younger people

have never experience a world without the internet, so I think they almost take that for

granted. (Nevada Photography Teacher, Questionnaire Response, August 17, 2018)

A participant from Virginia agrees:

I was the first generation to go from having no smartphones/ computers in the house to

seeing it become a "required" part of my daily life- I understand and emphasis its

important to my students as a tool, not a distraction. (Virginia Photography Teacher,

Questionnaire Response, October 4, 2018)

Similar to my own experience and the trajectory of this research, my interest in student use of

phoneography to constantly communicate with the world has lead me to investigate visual

literacy in high school photography contexts, I believe phoneography has the potential to be the

connection between how students are using imagery to what is happening in high school

photography classrooms. The handheld devices (smartphones, tablets, iPhones, etc.) are only one

of many tools that will be used to create and disseminate visual imagery over time. This seems

like an obvious way for students to transfer the knowledge they are acquiring in photography

classrooms to their daily lives through visual communication. An interview participant from

California agrees, "pretending that the phone is not a valid tool is unrealistic" (California

Photography Teacher, Interview, October 2, 2018). In this instance, the use of Instagram is

encouraged as the interview participant from California identifies interesting photographers and

resources students should follow on Instagram such as JR, Humans of New York, Magnum, and

the New York Times Photography Department. An interview participant from Massachusetts

described her thoughts surrounding student use of Instagram as first noticing that her students

constantly scroll their feed. Her first impressions were that they were looking at a lot of "bad

photography" and she had no interest in engaging with Instagram herself due to the overwhelming amount of images it holds. She explains:

> Like three or four years ago I was like no phone photography but I've changed. You know and now I'm like you know we might be able to make a big print of that if you know what kind of phone you have. You know, email it to me and let's open it up in Photoshop and see how big we can make it. It still looks good! (Massachusetts Photography Teacher, Interview, September 25, 2018)

Despite the diverse student populations, interview participants indicated that their students have access to smartphones, with very few, if any who did not. Using the devices as a tool is certainly not without challenges, one interview participant indicated that she is already monitoring two devices per student, adding a third that she had less control over would be stressful. In that instance, the interview participant from New Jersey is also teaching digital citizenship and social safety online. Although digital cameras are available to students, this teacher not only allows but encourages students to use their phones as tools, with every single student having access to their smartphone, access is not an issue. An interview participant from London commented,

> they are pretty ubiquitous I would say. It's almost like the first thing a kid is given, even before breakfast sometimes… You know it's like unless you have a phone you don't exist. So I would say 99% of the kids in school have a smartphone regardless of their economic circumstances. (London Photography Teacher, Interview, September 10, 2018)

The interview participant from New Jersey commented that her students use smartphones so frequently that she could break down the percentage of students who have iPhones as opposed to Samsung devices.

It could be assumed that due to the need to access photographic equipment in order to teach photography, that it is more prevalent in affluent or privileged communities. However, the data from this study challenges this assumption indicating that even the most diverse communities and those with the majority of students on free or reduced lunch have access to high school photography classes and can therefore access to instruction in visual literacy.

Additionally, as evidenced by the interview participants, access to smartphones have certainly revolutionized accessibility to photography in a way that students are not only using their phones to create and share images, but they are making critical decisions about how they are communicating. An interview participant from London describes student use of smartphones:

> We encourage them to think of those as just part of the story of photography. Photographers have always taken advantage of the latest technology to make images. Going back and looking at 'new' technology like the first rangefinder cameras in the 1920s which was a revolution in that it changed the way people saw and made photographs. (London Photography Teacher, Interview, September 10, 2018)

Although prevalent today, this technology will be replaced by the next technological advance as the smartphone has the brownie, polaroid, and disposable camera before it. What is important to emphasize here is that the students have a choice of what tool to use to best communicate their ideas and that their skills in visual literacy can be applied regardless of the tool used or the availability of current technology.

Curriculum Standards have Limited Impact on the Teaching of Visual Literacy

In my experience, as someone who went through a formal art education program and now teaching preservice art teachers in curriculum design specifically, I would assume that the participants who went through art education programs toward educator licensure are using

specific curriculum standards to guide their decision making and overall curriculum design.

However, the data gathered in this study challenges that assumption and indicates that only seven

teachers indicated that the standards influence their decision making regarding the inclusion of

visual literacy in their classrooms. Of those seven teachers, their training varies, as does their

states, there isn't any other indicator that would connect them. Overall, participant training (or

lack thereof) does not seem to have significant impact on the use and implementation of

curriculum standards in the teaching of visual literacy. Only 32 participants with training in

either teaching or visual literacy also use specific curriculum standards. Looking to those who

did not receive training in visual literacy and their use of curriculum standards, only 13

participants who did not receive training in visual literacy also do not use any standards.

Curriculum Standards	Amount of Participants who Indicated Use
State-Specific Standards	32
National Core Arts Standards	21
No Answer/ did not complete the prompt	18
None	8
Career and Technical Education Standards	6
Not Applicable due to Teaching in Independent Schools	5
Unsure	3
Teacher-Created Standards (Independent Schools)	2
International Society for Technology Education (ISTE) Standards	1
National Media Arts Standards	1

Table 9. Curriculum Standards Identified by Participants.

Out of the 100 participants in this study, 18 participants neglected to answer the prompt

while three were unsure if they use standards and eight participants indicated that they do not use

any curriculum standards. As mentioned in the previous chapter, participants expressed a general

sense of apathy toward the standards seeing them as more of a hinderance than a tool for

assisting them in the creation of a curriculum.

Upon investigation, I did not find any photography specific standards, outside of the Core Course Objectives (CCOs) that align with the state standards in Massachusetts. When creating these CCOs, attempt was made not only to identify the highest priority standards from the state framework but to translate the general visual art language to photography specific language in attempt to assist photography teachers specifically. Given that there were 25 participants from Massachusetts, not a single teacher indicated using the CCOs for photography. This is also surprising as the CCOs were created specifically to assist teachers in creating assessment tools that are linked with the states teacher evaluation model. Even though these CCOs were created by a team of high school photography teachers, the lack of implementation could be due to the general distaste for the outdated nature of the current standards in Massachusetts (from 1999) or the lack of dissemination of information by the Department of Elementary and Secondary Education. Overall, I believe that part of the problem is that due to the specific nature of teaching photography as medium-specific, teachers have a hard time translating general standards which tend to have a more limited fine art focus that is generally easier to apply to traditional media such as drawing and painting. The overall apathy and lack of impact on decision making makes me question how the standards are being created, disseminated and supported. The National standards as well as those created in many states do put together review and writing teams made up of art teachers (not photography specifically) though I wonder how we can make this a more important process to those who will be implementing the standards? How can we bridge the gap between the standards and their use in the classroom? How can we tap into the knowledge of the teachers who have the expertise and experience and create a usable and rigorous document that would assist teachers while more closely mirroring what is actually happening in their

classrooms? How can we, as a field create and implement standards that high school photography teachers not only use but value?

The data indicates that few teachers are using career and technical education standards since four career-changers from professional photography or a related field chose this path towards licensure and ultimately teaching high school photography. Even though only four participants took the CTE path, and six indicated using the CTE standards, 46 participants have career or professional experience, but did not indicate using the CTE standards. Programs implementing CTE standards have the potential to bring in a considerable amount of funds and resources for the schools implementing them, which would certainly motivate any teacher to implement or at the very least align their current curriculum with the CTE standards. Along those lines, only one participant indicated using the ISTE standards, created by the International Society for Technology in Education which are rooted in technology and provide a plethora of related resources including a strong annual conference.

Given that the National Art Education Association has a definition and corresponding position statement on visual literacy, it is not surprising that participants indicated the National Core Arts Standards in Visual Art as the most commonly used. Although 21 out of 100 participants is quite a small amount there seems to be less general apathy towards the national standards overall with some participants citing specific aspects of the standards they find useful in teaching visual literacy. Overall, these national standards are somewhat broader than the standards in many states and were written specifically to be applied across a variety of art media, making them easier to embed in photography courses.

Interestingly, not one participant mentioned the ACRL visual literacy standards when asked what standards they use. Although created for higher education, K-12 art teachers may

find them useful as they address many of the aspects found in the NAEA definition of visual literacy. It could be argued that since the ACRL standards are not geared towards K-12 education, high school photography teachers may not be aware of their existence. Additionally, since the ACRL standards were created through the American Library Association as opposed to an organization rooted in education or art education, teachers may be less likely to implement them.

Assuming that most high school photography teachers have graduated from institutions of higher education, exposure to the ACRL visual literacy standards at some point in their training could be presumed. However, to test this assumption, further study is needed to know how many institutions are implementing the ACRL visual literacy standards and addressing visual literacy by name—no indication of how many or where the standards are being implemented. For example, in 2015, Lesley University was awarded a grant from the Davis Educational Foundation that enabled the College of Art and Design to work with the College of Liberal Arts on a multi-year initiative focused on implementing pedagogical projects rooted in visual literacy (Lesley University Library, 2018). This initiative used the ACRL visual literacy standards as a point of departure and provided resources, professional development opportunities, created faculty collaborative teams, and hosted an International Visual Literacy Association conference to assist faculty in exploring and implementing visual literacy across curricular areas.

In contrast, the College of Visual and Performing Arts at UMass Dartmouth where I currently teach art education, I know our visual art librarians are familiar with the ACRL standards, and work to provide resources through the Visual Media Literacy Hub (newly updated name from the Visual Resource Center). However, in the numerous curriculum meetings I have

attended I have not heard any mention of visual literacy or the ACRL standards from any other faculty members. This could be a general lack of awareness from art and design faculty and art historians, however, it may also be a case of articulating exactly where it fits in the broader curriculum and whose responsibility it is to implement and assess. In a higher education setting where much of the curriculum is segregated by media, it may be difficult to come to an agreement about where visual literacy fits and how it is addressed across all curricular areas. This may be why it is housed with the American Library Association to begin with. The ACRL visual literacy competency standards emphasize a collaboration stating:

> Visual literacy education is typically a collaborative endeavor, involving faculty, librarians, curators, archivists, visual resources professionals, and learning technologists. Integrating visual literacy into the curriculum requires partnerships and shared implementation strategies across academic departments and units. Libraries play an important role in this process by selecting and providing quality image resources, developing research and subject guides for images, teaching image research strategies, and raising awareness of the ethical use of visual media. Libraries are also established partners in working with students to develop the critical thinking and evaluation skills essential to participation in visual culture. (ACRL, 2011, para 10)

As indicated in this statement, visual literacy education is a shared responsibility which may be why no one department or subject may be addressing it. It is more likely, that in higher education, visual literacy is embedded in coursework but rarely identified as such.

Participants Employ Dialogue-Based Strategies when Teaching Visual Literacy

Whether teaching visual literacy as embedded in their lessons or addressing it explicitly, high school art teachers indicated that they use dialogue-based instructional strategies when

teaching visual literacy. This section will discuss dialogue-based pedagogy, and facilitating discussions about photographs.

With the vast majority of participants indicating experience in art education, photography or related studio experience, they are likely to have experienced critique of their own creative work and that of their peers. As indicated in Table 5, critique was the most popular teaching strategy for addressing visual literacy with 93 of the 100 participants employing a form of critique in high school photography classes. Graham & Zwirn (2010) suggest that teaching artists often engage their students in critique to explore contexts and understandings around works of art because they are well acquainted with the discourse of critique. With 80 participants use collaborative discussion and 79 implementing formal analysis, these top techniques are reflective of teachers experience in studio courses where they likely experienced similar strategies. If their training included art history, formal analysis is typically par for the course. Additionally, many popular textbooks for art education focus on elements and principles of design and basic four-step analysis procedures.

67 participants utilize Visual Thinking Strategies, which is widely used in museum settings and has an array of resources available. The VTS text by Philip Yenawine (2014) is easy to read and follow, and includes a section on how to use VTS with English Language Learners making it a great resource for many schools. Additionally, VTS offers a facilitator training pathway specifically for schools and teachers for a cost of $500, facilitators are able to access resources and support for a three-year cycle. One participant commented, "my previous employment was in museum education which uses Visual Thinking Strategies as the gold standard. This, naturally, followed me to public education" (Ohio Photography Teacher, Questionnaire Response, August 17, 2018).

VTS employs a dialogic questioning technique that builds upon the idea of dialogic looking where "viewers consciously articulate the questions that arise while they look" (McKay & Monteverde, 2003, p. 42). When implementing dialogic looking further questions that ask students to find themselves in the image/ situation, how they would respond to the ideas presented in the image as well as how they might alter or change the image thus furthering their critical thinking skills (Baxter, 2012). Though not directly, interviewees commented on starting with basic analysis skills through identification of photographic effects or elements and principles before scaffolding experiences where students were asked to make inferences about meaning and context. Further investigation would be needed to examine if and how dialogic questioning and looking were used by participants in high school photography contexts.

Facilitating Discussion about Photographs

Scholars point to the difference between dialogue and teacher led discussion by emphasizing that dialogue is not teacher-centered rather one that engages the students with questions stimulating deeper understanding (Zander, 2004). Where teacher-led discussion asks one-way questions, seeking specific answers often dominated by the teacher providing information (Pérez Miles, 2010; Zander, 2004). "Research has revealed that the biggest hindrance to effective discussions is that teachers have a difficult time shifting from an information-giving role of that of facilitator" (Loh, 2015, p.15). As a facilitator of the discussion, the role of the teacher is to "provide students with the kinds of questions that deserve inquiry, yet are not so hard as to be incomprehensible to the student, while being meaningful and open-ended enough to merit rich discussion" (Zander, 2004, p.52). Fecho & Botzakis (2007) emphasize that even though learning through dialogue is student-centered, there is still a need for a teacher's wisdom which can encourage both teacher and students to explore "different points of view and

to examine possibilities" (Zander, 2004, p. 52). Though a teaching philosophy that values building a safe, supportive space where dialogue can be used is a commitment on the part of the teacher, with an appropriate classroom dynamic where many voices can be heard, meaning making can happen (Duncum, 2008; Zander, 2004). Further, "dialogue helps to clarify what has already been learned and what still needs to be addressed" (Zander, 2004, p. 52) and allows students to focus on the prompt or piece of artwork building on the information they already know and construct new knowledge based on the shared dialogue.

One limitation of this study is not knowing exactly how dialogue is used to teach visual literacy. Beyond the descriptions provided by the interview participants, it is impossible to know if the dialogue-based strategies are effective in the acquisition of visual literacy. As stated in the previous chapter, interview participants employ one-on-one discussions, gallery walks, collaborative discussions, student-led dialogue and critique to engage students in the acquisition of visual literacy. However, without further investigation, it would be impossible to know if the characteristics of a dialogic classroom proposed by Fecho & Botzakis (2007) occur with regularity:

1. Raising of questions and the authoring of response by and among all participants

2. Embracing the importance of context and the nonneutrality of language

3. Encouraging multiple perspectives

4. Flattening of or disturbance within existing hierarchies, and

5. Agreeing that learning is under construction and evolving rather than being reified and static. (p. 550)

Similarly, Bamford's (2003) guide for facilitating discussions about images identifies five major points for assisting teachers in conducting collaborative conversations: issues, information,

who, persuasion and assumptions (see appendix D). This guide offers prompts that correspond to each of the five points that can be asked of the group to push their skills in critical analysis. Bamford's (2003) prompts provide an opportunity for students to consider not only what they see but what is also left out, implied and what is assumed. This line of questioning differs from others that I have encountered as it provides questions to assist us in placing our own assumptions and perspectives, allowing the discussion to dig deeper, going beyond descriptions of what we see.

Participants expressed the importance of helping students understand the meaning behind photographs and indicated that dialogue-based approaches were used when teaching this aspect of visual literacy. Additionally, participants were asked to select the strategies, approaches or resources they employ in the acquisition of visual literacy. Although this prompt provided data indicating that teachers overwhelmingly use dialogue-based strategies when teaching visual literacy, the exact questions or prompts used (beyond those specified for use in VTS) are limited as the survey/ questionnaire did not ask for specific explanation. To compare teachers' experiences of facilitating discussions with the concepts and prompts indicated in Bamford's (2003) guide, it can only be assumed that they believe dialogue is successful when teaching visual literacy. In terms of facilitating discussions, a photography teacher from Connecticut offered, "I think having good discussion skills with classes helps students to create stronger, meaningful compositions and that comes with time and experience in the profession" (Connecticut Photography Teacher, Questionnaire Response, August 18, 2018). While a participant from Massachusetts stressed, "my most pressing concern is getting students to actually talk about imagery. Make connections to bigger symbolism that might impact the story of the image" (Massachusetts Photography Teacher, Questionnaire Response, September 4,

2018). A key component of Bamford's (2003) guide is to ask students to consider what has been left out and to consider the source of the image. A teacher from Virginia agrees, "the students need to think critically about what they are seeing. They need to question the source and what I seen and left out of images" (Virginia Photography Teacher, Questionnaire Response, September 4, 2018). Another participant indicates "helping students read context clues visually" (South Carolina Photography Teacher, Questionnaire Response, September 27, 2018). Ultimately, high school photography teachers indicate that dialogue-based strategies are employed most frequently when teaching visual literacy. Their responses indicate agreement with Freire's notion that we can humanize education through pedagogy that "enables both students and teachers to develop a critically conscious understanding of their relationship with the world…. That enables students and teachers to become subjects consciously aware of their context and their condition as a human being" (Shih, 2018, p. 231).

Both Analyzing and Creating Images are Important Aspects of Visual Literacy

When identifying their most pressing concerns, 36 participants indicated the need to decode images had the highest number of responses, creating images with intent had only 17. An additional eight participants indicated that both the ability to read as well as create images as most pressing. A participant from New York comments that "learning to look, to take time to observe, to notice, to be comfortable with the not knowing. To understand artistic, formal choices and how said choices reinforce the meaning of a work" (New York Photography Teacher, Questionnaire Response, October 2, 2018) is their most pressing concern regarding the teaching of visual literacy. In agreement, a participant from Massachusetts describes the importance of reading images:

Helping students develop the skills and confidence to understand and interpret the

purpose of and in the images they see. So many high school students don't think beyond

or behind an image, they take what they see at face value and in the age of sponsored

posts this can be deceptive thinking. (Massachusetts Photography Teacher, Questionnaire

Response, August 18, 2018)

Another Massachusetts teacher concurs:

I want students to spend more than 3 seconds looking at a photograph. I want them to

consider the purpose of the photo and any necessary context. Critical thinking skills

should be emphasized. Students should not be saying "I don't know, I just like it" when

identifying images they deem successful. (Massachusetts Photography Teacher,

Questionnaire Response, September 4, 2018)

Five participants saw teaching visual literacy through photography as assisting students in

overcoming language barriers and traditional literacy skills as they pertain to reading and

writing. While three participants felt that assisting students to engage in active listening and

talking was most pressing. Similarly, 72 participants indicated using reading and/or writing artist

statements in the service of teaching visual literacy. As was reflected in participant responses, we

have a general tendency as teachers to automatically think of reading and writing when we talk

about literacy of any kind.

When discussing their own work, a photography teacher from Virginia commented:

Students feel more invested when they can read their image, share out, see what others

believe it means. Students learn that anyone can push a button on a camera, but it takes

skill to create a well thought out, composed image that tells a story. (Virginia

Photography Teacher, Questionnaire Response, September 5, 2018)

When it comes to making images with intent and successful communication, creating images that

apply knowledge of visual literacy, students will become effective communicators that are aware

of what and how they are communicating ideas but embedding their images with layers of

meaning. When ranked for importance, 89 participants indicated the ability to design and create

meaningful photographs that communicate original ideas most important. At first, it may seem

that the reading of images (as in analyzing or decoding) may be more prevalent in high school

photography classrooms. However, upon investigation, we see that high school photography

teachers are employing critique over all other teaching strategies and forms of dialogue. This

leads me to believe that dialogue is not only used to understand images created by others but is

used in the service of explaining intention behind images created by high school photography

students through the critique process. Further investigation would be needed to understand the

balance between the reading (analyzing) and writing (creating) of images in high school

photography classrooms. Regardless, based on the data at hand, we know that that visual literacy

is being implemented in classrooms through various methods of dialogue including those

strategies aimed to decode (such as VTS) and through critique which has an emphasis on

explaining and accepting critical feedback on how to best communicate student ideas in hopes of

providing the student with tools to assist in their acquisition of visual literacy.

High School Photography Students Need Visual Literacy

High school photography teachers indicated that they prioritize student needs when

deciding what to include in their curriculum. Participants identified various aspects of student

need including: student interest, competency levels, college preparation, employment skills, contemporary/ visual culture, and current events. To fully understand the ways in which teachers believe visual literacy can assist with the student needs as stated previously, further investigation is needed. We do know that without an agreed-upon definition of visual literacy, and identified and assessible skills and competencies we cannot assess its current effectiveness in a generalizable or comparable way. However, scholars agree that living in an image saturated society where we are continually connected, expanding our traditional view of literacy to include visual literacy is an essential life skill (Kędra, 2018; NAEA, 2016, 2017). When considering the needs of students and how they relate to visual literacy, one teacher stated:

> That, as young people they don't fully understand the world and really have a powerful tool at their disposal that could bring change. Even though I spend 180 days with my students I'm constantly battling outside influences (home life, other classes, resources, politics from within the school, etc.). This is a very transient district and constantly sees teachers and admin come and go. They also see hundreds of photos a day via social media, but I want them to see a photo the same way I do to inspire their own ideas.
>
> (Michigan Photography Teacher, Questionnaire Response, August 25, 2018)

As noted in the previous chapter, participants expressed the importance of including visual literacy in their curriculum to assist students in their understanding of images they see daily as well as their ability to understand deeper meaning and broader contexts in service of making them educated citizens. Whether expanding their worldview, creating empathy, developing a critical eye or fostering educated voting in an increasingly visual political arena, high school photography teachers are using visual literacy to meet the needs of their students.

Choosing Images to Investigate

One of the ways teachers meet the needs of their students is through careful consideration in the selection of images used in teaching whether it be to stimulate interest, cover technical applications or formal investigation, the image or body of work chosen can have a major impact on the learning outcomes. In choosing images to discuss or interrogate with their classes, teachers look not only to student interests, but also the topics or content they feel will leave a lasting impact on their students' lives. "If we conceptualize teaching as needing to meet not only the academic but also the societal and everyday needs of students, then there exists a certain obligation to address issues and themes relevant to students' lives" (Zander, 2004, p. 51)

We know that participants encourage students to explore photographic works that they find personally interesting and when selecting work for the entire class, effort is made to include works from various cultures, geographic regions, and marginalized populations. Interview participants expressed that although they make a conscious effort to include a variety of works, it is tough work and takes considerable time to acquire resources that include less accessible photographs/ photographers. For example, when stressing the need to have resources available (both print and digital) there are is still funding needed to acquire high quality photo books and interview participants indicated that they often spend their personal funds to build resource libraries for the students to access. We also know that while an effort is being made, the photographers selected may not be as diverse as teachers may think. With the vast majority of the photographers named by participants, the vast majority were white American men (see Appendix I for the complete list). However, when listing resources, seven participants listed the use of the New York Times Lens blog which explores a vast array of photographers and often includes works from underrepresented populations. Other resources included news images from the

Washington Post, Time Magazine covers, news images, YouTube videos, Farm Security

Administration images, National Geographic, Magnum Photographers, and online resources

including PetaPixel, FStoppers and PDN. It's encouraging that some teachers included popular

imagery, to address student needs as it poses unique challenges, since students are immersed in

it, and through which "they share powerful, affective associations. Critiquing popular culture

means asking students to critique themselves, which is difficult even for mature adults"

(Duncum, 2008, p. 249).

Given that many of the participants (at least 46) were trained in photography or related

studio areas, their experiences with coursework in undergraduate photography or those that cover

the history of art/ photography, the introductory or foundational courses "tend to favor textbooks

that establish a more traditional narrative" (Gayed & Angus, 2018, p. 232). Despite a lack of

exposure to a more diverse range of photographers, high school photography teachers are making

a conscious effort to include a variety of photographers through including historical images,

contemporary images, photographs in popular culture and photographers and images that include

narratives from marginalized populations. Ease of access may be a reason it's not happening

more often, however, the intention on the part of the teachers is there and free online resources

continue to be more and more inclusive. Perez Miles (2012) warns that educators may

"consistently silence certain voices and amplify others through the selections they make for the

curriculum, the structure of assignments and assessments, and the overall classroom

environment" (p. 113). Given this power, it is essential to recognize that high school photography

teachers are in a position to "empower those who are marginalized and disempowered" (Perez

Miles, 2012, p. 120) emphasizing the urgent need to bring both awareness and access of

underrepresented images into the high school photography curriculum. The social media

movement referred to as #firstdayfirstimage that asks "art educators to actively rethink the canons they create for their curricula starting with the first image shown to students on the first day of class" (Gayed & Angus, 2018, p. 232). This movement encourages teachers to include photographers (or artists) from various geographic areas while also addressing historical and contemporary themes which has the potential to address multiple perspectives and expand student worldview (Gayed & Angus, 2018).

Visual sensitivity

When participants were asked to rank importance of various aspects of visual literacy, the ability to think visually was ranked strongly agree by 87 out of 100 participants. Similarly, when interviewing the participant from London, he described an important and often ignored aspect of visual literacy, identifying this aspect as visual sensitivity. He described that some students are able to create and understand visual images more intuitively than others. As a way of knowing and communicating, it may be more effective for these students to create images as opposed to communicating through other means (speaking, writing, etc). Given that some students have this sensitivity, how do photography teachers differentiate their instruction in a way that addresses the needs of this particular type of student while honing it in others?

The interview participant from London aimed to assist teachers in his district implement visual literacy in their curriculum. He began by conducting an in-depth search and was unable to find a school policy or guide already in existence, which led to his writing a visual literacy policy for his school. This policy describes visual literacy as "a sensitivity to and critical understanding of visual forms of information" (London Photography Teacher, Personal Communication, October 3, 2018). Further defining visual literacy as "a sensitivity to visual phenomena; an aptitude for thinking visually; and an ability to read, comprehend, and write *visual* language."

(London Photography Teacher, Personal Communication, October 3, 2018). Regarding the notion of visual sensitivity, this policy states:

> A sensitivity to visual phenomena is not dependent on words. Artists, for example, often refer to the notion of visual intelligence, a pre-verbal responsiveness to images and objects that informs their relationship to the world… We might have this experience when we feel that something looks right (or wrong) but can't verbalize why. This may be because we have absorbed certain aesthetic conventions but it is also the case that some people seem more sensitive to information presented in a visual form. However, we believe that everyone can develop this disposition with encouragement and deliberate practice. (London Photography Teacher, Personal Communication, October 3, 2018)

In creating and implementing this policy, this school is certainly ahead of the curve when it comes to implementing visual literacy specifically into curricula. The policy includes specific suggestions for teachers of all subjects and provides a clear and attainable overview for teachers across all disciplines. The field of art education could greatly benefit from the work of this particular participant as we strive to include visual literacy in our curricula. Through the sharing of resources, school-wide initiatives and strategic professional development we can assist other likeminded teachers in implementing visual literacy in high school classrooms in a way that is impactful, meaningful and enriches experiences for both teachers and students.

When speaking with the interview participant from Michigan, he remarked about his lack of confidence in verbal communication and opted to send images that he felt would help describe how he understands visual literacy (images displayed in the previous chapter, see figures 15, 16 and 17). The images he sent supported what he was describing in terms of the content of images,

and how he emphasizes visual communication when teaching his students. He described using images to spark discussions with his students and often uses his own practice to model visual communication for students. Additionally, he sent images of his students working as well as some of their finished images to assist in displaying how visual literacy is embodied in his classroom. The student images are not included in this paper in order to protect student confidentiality, as they often depict students in action. Upon investigation of the student images, it is clear that they are tackling contemporary themes, issues of social justice, and visual symbolism while honing technical skills. This supports the notion that photography teachers as well as their students may possess a particular aptitude towards visual sensitivity. A photography teacher from California explains:

> My visual language of choice, Photography, was a passport that allowed me to be an anthropologist and to go places that I most certainly never would have gone without a camera. This makes me a natural advocate for visual literacy. (California Photography Teacher, Questionnaire Response, September 21, 2018)

Additionally, I did not ask participants if they consider themselves visually literate, or about their own visual sensitivity. Some participants identified aspects of their lives to which they are particularly affected by visual images, while others describe their preference of visual communication supporting the need for further investigation. Another area in need of further expansion is that of the artifacts of visual communication, specifically, the investigation of photographs created with intent. It would be enlightening to analyze photographs with corresponding descriptions from both teachers and students to see if the intent of the visual literacy prompt (created by the teacher) and the outcome (created by the student) aligned with the intended learning objectives. The one interview I was able to conduct in person in

Massachusetts, provided the opportunity to engage directly with the students who were just finishing up their class. They were articulate, passionate, and happily shared their photographic work while describing their intent as well as the techniques used to create the image itself.

Recommendations and Implications for the Field

Though visual literacy has had a vibrant multidisciplinary presence since the early 1960s, the field of art education would benefit from having an open dialogue surrounding visual literacy. The NAEA position statement on visual literacy (2017) is a clear tool for teachers as they advocate for the inclusion of visual literacy in their curriculum. The position statement encourages the inclusion of visual literacy across disciplines and provides suggestions for implementation such as close reading, formal analysis, evidence-based inferences, meaning-making strategies, collaborative discussions as well as the creation of artwork with intention (NAEA, 2017). Not only would the conscious inclusion of visual literacy assist art and photography teachers, it would serve to provide students with their comprehensive literacy skills to help prepare them to become productive citizens in a 21st century (NAEA, 2018). As a field, we have much work to do to provide resources, discussion, assessment and research surrounding visual literacy.

The State of Photographic Education

Currently, the Society for Photographic Education (SPE) and the American Society of Media Photographers (ASMP) are conducting a study titled *2018/19 State of Photographic Education* that asks participants to indicate basic information about their photographic education programs including funding, equipment access, enrollment, staffing, class size, and support or access to professional development opportunities. In addition, the questionnaire asks about the inclusion of traditional media and digital media in their course sequence. Certainly, this would

provide useful information for advocating for additional resources for college level photography courses and contribute useful data to support an overall picture of the current state of photographic education at the college level. Although the questionnaire was clear in encouraging participants from photographic education in the broadest sense, when taking the survey it became clear that the questions were certainly designed through the lens of college photography instructors and those who teach related courses (videography, multimedia, etc). What I found interesting was the lack of curriculum specific prompts, beyond equipment used (digital versus analog). The questionnaire did not address content, pedagogy, or ask about the needs of those who are teaching photography. Of course, every study has limitations and perhaps this may be the first round of inquiry. Given the mission of the SPE, it is surprising that the survey didn't address the teaching or inclusion of diversity in creative expression or cultural insight in curriculum. The mission of the SPE states:

> a specific mission to provide and foster an understanding of photography as a means of diverse creative expression, cultural insight, and experimental practice. Through its interdisciplinary programs, services, and publications, the society seeks to promote a broader understanding of the medium in all its forms through teaching and learning, scholarship, and criticism. It welcomes as members everyone involved in such teaching and all others who have similar goals and interests. The society aims to engage in a continuing reappraisal of the nature and meaning of imagemaking and the teaching of lens-based media. (SPE, 2017, p.1)

Although the questionnaire did ask about professional development, it did not ask about teaching and learning or how criticism is addressed in their courses. The "nature and meaning of imagemaking and the teaching of lens-based media" (SPE, 2017, p.1) certainly aligns with visual

literacy as it relates to this study. In order to scratch at the meaning of image making, we are

teaching visual literacy. Further, to investigate the nature of imagemaking and the teaching of

lens-based media, teachers are certainly facilitating experiences for students that "interpret,

comprehend, appreciate, use and create visual media" (NAEA, 2017, para 2), highlighting the

significant aspects of visual literacy as indicated by the NAEA.

Similarly, the ASMP's mission is to "advocate, educate, and provide community for

image makers — fostering thriving careers, a strong sense of professional ethics, and an

unshakable belief in the power of images" (ASMP, 2018, para 1). The most glaring connection to

visual literacy being the "unshakable belief in the power of images" (ASMP, 2018, para 1). More

directly, the ASMP core values includes, " Images are a vital form of communication and visual

literacy is invaluable to our entire culture" (ASMP, 2018, para 2). In agreement with NAEA's

belief that "being visually literate is a critical factor for success in a society and helps us

understand our world" (NAEA, 2017, para 2). These organizations all have varying missions and

visions but all value education in photography, aim to provide a community for those who teach

photography, provide resources for assistance in the teaching of photography and belief in the

power of understanding and creating images through visual literacy.

The SPE/ ASMP study on the State of Photographic Education is an excellent

compliment to this study, as I am sure the information they aim to gather would assist high

school photography teachers in advocating for their programs. Where this study emphasizes

visual literacy, it is conceived as more of a concept enacted by creative curriculum and pedagogy,

the state of photographic education focuses more on resources and practical needs. There is little

overlap, however, the pressing concerns regarding time and equipment access is always on the

minds of participants. When I was conducting interviews I was asked if I was seeing a shift in

equipment to all-digital and two of the five interview participants were strictly digital. One interview participant had access to the darkroom but only demonstrates the processes, students do not engage with the darkroom processes directly. Two interview participants have a thriving darkroom and digital program where students are encouraged to choose what is best appropriate to communicate their vision. There is a natural tendency to have this discussion in photographic education forums, as darkrooms across the country become replaced with computer labs and the access to phoneography as a means of creating and consuming images increases. Teachers are feeling the pressure of teaching skills and communication simultaneously, leaving time a most important factor in their ultimate decisions of what to cover in the time that they have available.

As I think of the trajectory of my own research, I seek to investigate the perspectives of photographic educators in higher education settings regarding visual literacy to compare with the perspectives of high school photography teachers. In addition, since the requirement in many institutions of higher education is that the instructors earn a master's degree in photography or a related field, and have a strong exhibition record, it will be interesting to see if their training in photography influences how and what they teach in terms of visual literacy. Assuming there may be similarities to those high school teachers who were trained similarly, personal experience and student need may be a contributing factor. Pedagogical strategies, including dialogue-based strategies would be investigated to see how pedagogy may shift from what is common in high school settings to higher education settings in attempt to see if any natural scaffolding occurs. Additionally, awareness of and use of the ACRL standards would be investigated to see if they impact the teaching of visual literacy in higher education settings, as I found no use of the ACRL standards at the high school level.

Conclusion

This study endeavored to explore the perspectives of high school photography teachers surrounding visual literacy. Through qualitative methodology that utilizes a phenomenographic research design, data was collected from 100 participants through a survey/ questionnaire paired with five semi-structured interviews. Three main themes were constructed: Curricular Influences, Pedagogical Considerations, and Creative Applications. Upon consideration of the outcome space, five topics provided points of discussion. The first topic, *participants' lived experiences directly influence their teaching of visual literacy* highlighted how their training and teacher preparation, their personal experiences, and relationships with technology impact their teaching and implementation of visual literacy in their curriculum. The second topic, *curriculum standards have limited impact on the teaching of visual literacy* explored the notion that although teachers are using standards, they have little to no impact on how they develop curriculum. Of note, only seven of the 100 participants listed the standards as an influence on the teaching and implementation of visual literacy in their classrooms. The third topic, *participants employ dialogue-based strategies when teaching visual literacy* looked at the ways in which teachers were using dialogue when addressing visual literacy in their classrooms. This topic was significant in that all participants are using at least one dialogue-based strategy to teach visual literacy, with the majority of teachers using multiple dialogue-based approaches. The fourth topic, *both analyzing and creating images are important aspects of visual literacy* focuses on the notion that both the reading of images and the writing of images is essential for a comprehensive understanding of visual literacy. The fifth and final topic, *visual literacy addresses the needs of high school photography students* emphasizes the notion that teachers identify various student needs and implement visual literacy to meet those needs. Specifically, teachers choose images to

explore and discuss, which provides an opportunity to explore various cultures, geographic locations and views thus expanding the worldview of their students. Additionally, the importance of honing skills in visual sensitivity in the service of visual literacy is discussed as it affects the needs of teachers as well as students.

Ultimately, the field of art education still has a long way to go in order to fully address visual literacy in high school photography classrooms and beyond. The 2017 position statement on visual literacy created by the NAEA provides a solid foundation upon which art educators can advocate, discuss and research various aspects of visual literacy. As a point of departure, this position statement clearly articulates a definition of visual literacy that can be applied to all art education settings, and is easily applicable to photography. Having an agreed-upon definition for implementation in the field is essential for further exploration of the ways in which visual literacy is being implemented in photography (and art) classrooms across the globe. From there, we can best identify the needs of teachers in their own acquisition of visual literacy and their implementation of visual literacy in their classrooms. Further research is needed to identify best practices, specifically, the ways in which high school photography teachers are using dialogue-based strategies and the success of these strategies in the acquisition of visual literacy. Participants are calling for resources, beyond the standards, that will assist them in teaching visual literacy, and provide access to images by photographers who represent underrepresented populations.

Given the bombardment of visual imagery we are faced with daily, and the current technological innovations making access and dissemination of photographs more accessible than ever, it is essential that high school photography teachers include visual literacy in their curriculum. Ultimately, if we are working to address the needs of our students to adequately

prepare them for life in a globalized 21st century, we need to recognize that visual literacy is an essential component in comprehensive literacy and communication. Through photography, we have the opportunity to support visual literacy and encourage the transfer of skills from our classrooms to all aspects of daily life.

References

Åkerlind, G. (2008). A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. *Teaching in Higher Education*, 13 (6), 633-644.

American Society of Media Photographers (2018). Mission Statement. Retrieved from:https://www.asmp.org/resources/about/mission/

Aperture Foundation (2017). *Aperture On Sight: Teaching visual literacy through photography*. New York: The Aperture Foundation. Retrieved from: http://aperture.org/on-sight/

Ashworth, P. & Lucas, U. (1998). What is the 'world' of phenomenography? *Scandinavian Journal of Educational Research,* 42 (4), 415-431.

Association of College & Research Libraries (2011). *Visual Literacy Competency Standards for Higher Education*. Chicago, IL: American Library Association. Retrieved from: http://www.ala.org/acrl/standards/visualliteracy

Austerlitz, N. (2007). The internal point of view: Studying design students' emotional experience in the studio via phenomenography and ethnography. *Art, Design & Communication in Higher Education*, 5 (3), 165-177.

Avgerinou, M. & Patterson, R. (2011). Toward a cohesive theory of visual literacy. *Journal of Visual Literacy*, 30 (2), p. 1-19.

Avgerinou, M. (2007). Towards a visual literacy index. *Journal of Visual Literacy*, 27 (1), p. 29-46.

Baker, F.W. (2012). *Media literacy in the K-12 classroom, 2nd Edition*. Arlington, VA: International Society for Technology in Education (ISTE).

Bakhtin, M. (1981). *The dialogic imagination*. Austin, TX: The University of Texas Press.

Bamford, A. (2003). *The visual literacy white paper.* Sydney, Australia: Adobe Systems, Inc.

Baxter, K. (2012). The role of family snapshots in teaching art history within a dialogic pedagogy. Art Education, 65 (1), 11- 18.

Bell, D. (2016). The reality of STEM education, design and technology teachers' perceptions: A phenomenographic study. *Journal of Technology & Design Education*

Berry, M. (2017). *Creating with mobile media*. Cham, Switzerland: Springer International Publishing.

Bowden, J.A. & Walsh, E. (Eds.). (2000). *Phenomenography, qualitative research methods series*. Melbourne: RMIT University Press.

Bowen, D. H., Greene, J.P., & Kisida, B. (2014). Learning to think critically: A visual art experiment. *Educational Researcher*, 43(1), 37-44.

Bilsborow, C. & Wood, D. (2014). 'I am not a person with a creative mind': Facilitating creativity in the undergraduate curriculum through a design-based research approach. *The Electronic Journal of e-Learning*, 12 (1), 111-125.

Bowen, D. H., Greene, J.P., & Kisida, B. (2014). Learning to think critically: A visual art experiment. *Educational Researcher*, 43(1), 37-44.

Brumberger, E. (2011). Visual literacy and the digital native: An examination of the millennial learner. *Journal of Visual Literacy*, 30 (1), p. 19-46.

Buckingham, D. (2003). Media education: Literacy, learning and contemporary culture. Cambridge, UK: Polity Press.

Castro, J.C. (2012). Learning and teaching art through social media. *Studies in Art Education: A Journal of Issues and Research*, 53(2), 152-169.

Caterall, J., Dumais, S., & Hampden-Thompson, G. (2012). *The arts and achievement in at-risk youth: Findings from four longitudinal studies.* National Endowment for the Arts.

Charmaz, K. (2014). *Constructing Grounded Theory*. Los Angeles, CA: Sage.

Church, M., Morrison, K. & Ritchart, R. (2011). *Making thinking visible: How to promote engagement, understanding, and independence for all learners*. San Francisco, CA: Jossey-Bass.

Cress, S. (2013). The digital domain: Using today's technologies to inspire engaging classroom experiences. *Art Education*, 66(1), 40-45.

Cruz, E.G. & Meyer, E.T. (2012). Creation and control in the photographic process: iPhones and the emerging fifth moment of photography. *Photographies*, 5 (2), 203-221.

Dallow, P. (2008). The visual complex: Mapping some interdisciplinary dimensions of visual literacy. In Elkins, J. (Ed.), *Visual Literacy*. (p. 91-104). New York: Routledge.

Dahlin, B. (2007). Enriching the theoretical horizons of phenomenography, variation theory and learning studies. *Scandinavian Journal of Educational Research*, 51 (4), 327-346.

Dewey, J. (1980). *Art as experience*. New York: Perigree Books.

Duncum, P. (2008). Thinking critically about critical thinking: Towards a post-critical, dialogic

pedagogy for popular visual culture. *International Journal of Education through Art*, 4 (3), 247-257.

Eisner, E. (2002). Arts and the creation of mind. New Haven, CT: Yale University Press.

Elkins, J. (2008). *Visual Literacy.* New York: Routledge.

Elkins, J. (1996). *The object stares back: On the nature of seeing*. New York, NY: Simon & Schuster, Inc.

Emanuel, R. & Challons-Lipton, S. (2013). Visual literacy and the digital native: Another look. *Journal of Visual Literacy*, 32 (1), p. 7-26.

Fecho, B. & Botzakis, S. (2007). Feasts of becoming: Imagining a literacy classroom based on \ dialogic beliefs. *Journal of Adolescent and Adult Literacy*, 50 (7), 548-558.

Feldman, E.B. (1992). *Varieties of visual experience*, 4ᵗʰ Ed. New York: Harry N. Abrams, Inc.

Feldman, E.B. (1970). *Becoming human through art: Aesthetic experience in the school*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Freire, P. (1998). *Pedagogy of freedom: Ethics, democracy, and civic courage*. Lanham, MD: Rowman & Littlefield.

Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Gayed, A. & Angus, S. (2018). Visual pedagogies: Decolonizing and decentering the history of photography. *Studies in Art Education: A Journal of Issues and Research*, 59 (3), 228-242.

Goggin, G. (2006). Cell phone culture—mobile technology in everyday life. Oxon: Routledge.

Graham, M. & Zwirn, S.G. (2010). How being a teaching artist can influence K-12 education. *Studies in Art Education: A Journal of Issues and Research*, 51 (3), 219-232.

Hallett, F. (2013). Study support and the development of academic literacy in higher education: A phenomenographic study. *Teaching in Higher Education*, 18 (5), 518-530.

Hamma, R. M. (2002). *Earth's echo: Sacred encounters with nature*. Notre Dame, IN: Sorin Books.

Highfield, T. & Leaver, T. (2016). Instagrammatics and digital methods: Studying visual social media, from selfies and GIFs to memes and emoji. *Communication Research and Practice*, 2(1), 47-62.

Hjorth, L. & Pink, S. (2014). New visualities and the digital wayfarer: Reconceptualizing camera phone photography and locative media. *Mobile Media & Communication*, *2*(1), 40-57.

Hobbs, R. (2005). Strengthening media education in the twenty-first century: Opportunities for the state of Pennsylvania. *Arts education policy review*, 106 (4), p.13-23.

Housen, A. (2002). Aesthetic thought, critical thinking and transfer. *Arts and Learning Journal*, 18 (1), 99-132.

Ingold, T. (2008). Bindings against boundaries: Entanglements of life in an open world. *Environment and Planning*, *40*(8), 1796-1810.

International Visual Literacy Association (2017). Retrieved from: ivla.org

Kędra, J. (2018). What does it mean to be visually literate? Examination of visual literacy definitions in a context of higher education. *Journal of Visual Literacy*, 37 (2), 66-83.

Khan, S.H.M. & Markauskaite, L. (2017). Approaches to ICT-enhanced teaching in technical and vocational education: A phenomenographic perspective. Higher Education, 73 (1), 691-707.

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. New York, NY: The Guilford Press.

Lesley University Library. (2018). *Visual Literacy @ Lesley: InFUSION Visual Literacy Project Details.* Retrieved from: https://research.lesley.edu/c.php?g=658321&p=4622473

Loh, V. (2015). The power of collaborative dialogue. *Art Education*, 68 (5), 14-19.

Marton, F. (1986). Phenomenography—a research approach to investigating different understandings of reality. *Journal of Thought*, 21 (3), 28-49.

Marton, F. (1994). Phenomenography, in T. Husen & T.N. Postlethwaite (Eds.) *International Encyclopedia of Education*, vol. 8. Oxford: Pergamon, Ltd.

Marton, F. & Booth, S. (1997). *Learning and awareness*. Mahwah, NJ: Lawrence Erlbaum Associates.

McKay, S.W. & Monteverde, S.R. (2003). Dialogic looking: Beyond the mediated experience. *Art Education*, 56 (1), 40-45.

Messaris, P. (1997). Visual Intelligence and Analogical inking. In J. Flood, S. B. Heath, & D. Lapp (Eds.), *Handbook of Research on Teaching Literacy through the Communicative and Visual Arts* (pp. 48-54). New York: Macmillan.

Mitchell, W.J.T. (2008). Visual literacy or literary visualcy? In Elkins, J. (Ed.), *Visual Literacy*. (p. 11-30). New York: Routledge.

Miraglia, K., & Smilan, C. (2014). Inquiry in action: Paradigms, methodologies and perspectives in art education research. Reston, VA: National Art Education Association.

National Art Education Association (2017). Position Statement on Visual Literacy. Retrieved from: https://www.arteducators.org/advocacy/naea-platform-and-position-statements

National Art Education Association (2016). *Learning in a visual age: The critical importance of visual arts education*. National Art Education Association: Reston, VA.

National Core Arts Standards (2014) Retrieved from: http://www.nationalartsstandards.org

Oliver, K. (2015). iPhoneography in the secondary classroom: Using social media to enhance visual communication. In Lemon, N. (Ed.) *Revolutionizing arts education in K-12 classrooms through technological integration*. Hershey, PA: IGI Global.

Pérez Miles, A. (2010). Dialogic encounters as art education. *Studies in Art Education: A Journal of Issues and Research*, 51 (4), 375-379.

Pérez Miles, A. (2012). "Silencing" the powerful and "giving" voice to the disempowered: Ethical considerations of a dialogic pedagogy. *The Journal of Social Theory in Art Education*, 32 (1), 112-127.

Perkins, E.G. (2008). Photo opportunities: Contemporary photographers Cindy Sherman and Jeff Wall as models for artistic and teaching identities. *Art Education*, 61 (2), 102-107.

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(4), *1-6.*

Rice, J. (2009). *The church of Facebook: How the hyperconnected are redefining community*. Colorado Springs, CO: David C. Cook.

Richardson, J. (1999). The Concepts and methods of phenomenographic research. *Review of Educational Research*, 69 (1), 53-82.

Rovio-Johansson, A. & Ingerman, Å. (2016). Continuity and development in the phenomenography and variation theory tradition. *Scandinavian Journal of Educational Research*, 60 (3), 257-271.

Samuelsson, I.P. & Pramling, N. (2016). Variation theory of learning and developmental pedagogy: Two context-related models of learning grounded in phenomenography. *Scandinavian Journal of Educational Research*, 60 (3), 286-295.

Santas, A. & Eaker, L. (2009). The eyes know it? Training the eyes: A theory of visual literacy.

Journal of Visual Literacy, 28 (2), p. 163-185.

Seidman, I. (2006). *Interviewing as Qualitative Research*. New York, NY: Teachers College Press.

Sheller, M. (2014). Mobile art. In G. Goggin & L. Hjorth (Eds.) *The Routledge companion to mobile media*. New York, NY: Routledge. 197-205.

Sherwin, R. (2008). Visual literacy in action: Law in the age of images. In Elkins, J. (Ed.), *Visual Literacy*. (p. 179-194). New York: Routledge.

Shifrin, S. (2008). Visual literacy in North American secondary schools: Arts-centered learning, the classroom, and visual literacy. In Elkins, J. (Ed.), *Visual Literacy*. (p. 105-128). New York: Routledge.

Shih, Y. (2018). Rethinking Paulo Freire's dialogic pedagogy and its implications for teachers' teaching. *Journal of Education and Learning*, 7 (4), 230-235.

Shor, I., Matusov, E., Marjanovic-Shane, A., & Cresswell, J. (2017). Dialogic & critical pedagogies: An interview with Ira Shor. *Dialogic Pedagogy: An International Online Journal*, 5 (1), 1-21.

Simons, J. (2008). From visual literacy to image competence. In Elkins, J. (Ed.), *Visual Literacy*. (p. 77-90). New York: Routledge.

Society for Photographic Education (2017). *By-Laws of the Society for Photographic Education*. Society for Photographic Education: Cleveland, Ohio.

Stafford, B.M. (2008). The remaining 10 percent: The role of sensory knowledge in the age of the self-organizing brain. In Elkins, J. (Ed.), *Visual Literacy*. (p.31-58). New York: Routledge.

Tight, M. (2016). Phemonemography: The development and application of an innovative research design in higher education research. *International Journal of Social Research Methodology*, 19 (3), 319-338.

Trigwell, K. (2000). A phenomenographic interview on phenomenography. In J.A. Bowen & P. Green (Eds.), *Doing developmental phenomenography*. Melbourne: RMIT University Press.

Vermeersch, L. & Vandenbroucke, A. (2015). Kids, take a look at this! Visual literacy skills in the school curriculum. *Journal of Visual Literacy*, 34 (1), p. 106-130.

Wager, A.C., Poey, V.M., & Berriz, B.R. (2017) Introduction to art as voice: Creating access for emergent bilingual learners. *Journal of Pedagogy, Pluralism, and Practice*, 9 (1), 5-32.

Walker, S. (2001). Teaching meaning in artmaking. Worcester, MA: Davis Publications.

Yenawine, P. (2014). *Visual thinking strategies: Using art to deepen learning across school disciplines*. Cambridge, MA: Harvard Education Press.

Yenawine, P. (2003). Jump starting visual literacy: Thoughts on image selection. *Art Education*, 56 (1), 6-12.

Zander, M.J. (2004). Becoming dialogical: Creating a place for dialogue in art education. *Art Education*, 57 (3), 48-53.

Zhang, M. (2018). Crying toddler in iconic photo never separated from mother. PetaPixel, June 22, 2018. Retrieved from: https://petapixel.com/2018/06/22/crying-toddler-in-iconic-photo-never-separated-from-mother

Zinkham, H. (2004). *Visual literacy exercise*. Washington, DC: Prints & Photographs Division, Library of Congress.

Footnotes

[1]Phoneography refers to the art of taking photographs using an Apple iPhone or similar device. It differs from other forms of mobile photography in that the images are taken, processed and shared using the single device (Oliver, 2015)

[2] *In vivo:* A term used to describe a coding technique used in qualitative research, where participants meanings and views are preserved by paying careful attention to how participants speech and meanings. *In vivo* codes assist in identifying commonly understood terms or points of view ultimately integrating theory that grounds the research (Charmaz, 2014).

Appendix A

NATIONAL ART EDUCATION ASSOCIATION
SHAPING HUMAN POTENTIAL

Position Statement on Visual Literacy
[Adopted April 2014; Reviewed and Revised March 2017]

NAEA supports visual literacy across disciplines and learning goals related to the focus on close reading, logical evidence-based inferences, meaning-making through analysis and group discussions, and creating visual imagery. The National Visual Arts Standards and National Media Arts Standards, organized around the processes of creating, presenting, producing, responding, and connecting, enable teachers to build students' comprehensive literacy skills.

Visual literacy is the ability to interpret, comprehend, appreciate, use, and create visual media, using conventional as well as contemporary and emerging media, in ways that advance thinking, decision-making, communicating, and learning. NAEA believes that being visually literate is a critical factor for success in society and helps us understand our world.

- Close readings of works of art and other media as text empower students to build strong content knowledge in a range of disciplines, as well as key skills such as critical thinking, evidence-based reasoning, and meaning-making.
- Engaging and conveying ideas in a visual language, through an art medium, is a crucial aspect of visual literacy.
- Discussions about works of art and design develop speaking and listening skills that support collaborative meaning-making and the articulation of ideas.
- Students communicate artistic intention through the visual, verbal, and written presentation of their own work.
- Visual literacy, when coupled with the ability to read, write, think mathematically, and express oneself competently, prepares students for productive futures.

Footnote: This Position Statement was originally adopted in 2014 with the title "Position Statement on Visual Literacy and its Relationship to the Common Core. The Position Statement was reviewed and revised in 2016-2017 to continue to reflect the importance of visual literacy in the context of reduced political support for "Common Core." In addition to the change in the title, and in the second sentence the phrase "learning goals" in the first sentence replaced "the Common Core goals" and the "National Core Arts Standards" was changed to the more commonly used "National Visual Arts Standards and National Media Arts Standards."

Appendix B

Framework for Visual Literacy

Stage of semiosis	Visual Literacy Skills	Skills referring to	The use of visuals as
Perception	Visual perception	The perception of visual information	Create visual information
Imagination	Visual imagination and creation	The representation or manipulation of existing images and the creation of new images	Concrete visual tools
Conceptualization	Visual conceptualization: visual language and communication	The abstract (symbolic) use of images in or as a language	Abstract symbols or icons
(Theoretical) analysis	Visual analysis: analyzing the structure and function of visual information and using visual information for analysis	Analyzing patterns and structure with an in images	Abstract structures or diagrams

(Vermeersch & Vandenbroucke, 2015, p. 112)

Appendix C

Photograph of the Week Prompts

1. Does this photograph have strong composition? Please explain your thoughts.

2. Which of the elements and principles are used most effectively in this photograph? Please explain your choices. (*Future versions listed the elements and principles of design and asked students to circle those used most effectively and then describe)

3. Create a visual diagram of the image in the space below utilizing leading lines of direction, a clear focal point, and simple value pattern.

4. What photographic effects are utilized in this image? (Does it have selective focus, stopped action, silhouette, etc.)

5. From what we can observe in the image, what f-stop, shutter speed, lighting conditions, and shooting considerations did the photographer control to create the image?

6. What is the purpose of the image?

7. Who was the photographer? Think beyond the name, what were they known for?

8. What is the contest in which the image was created?

9. What are the visual clues that can help us understand the image?

10. What is the title of the image? Does the title provide any help in decoding the visual message?

11. Do you have any questions about the image?

(Oliver, 2015, p. 259)

Appendix D

Guide for Facilitating Discussions About Images

Issues	• What issues are being shown in the image? • How is the way the issue is shown in the image similar or different from how you see this issue in the world? • What might this image mean to someone who sees it? • What is the message of the image?
Information	• Where has the information in the image come from? • What information has been included and what information has been left out? • What proportion of the image could be inaccurate? • What information presented is factual/ manipulated/ framed? • What is the relationship between the image and any text? • What impact does the size of images within the picture have?
Who	• What people are depicted in the image (even if there are no actual people in the image), whose culture or experiences are being shown? • Who created the image and for what purpose? • Who is the intended audience for the image? • Whose point of view does the image take?
Persuasion	• Why has a certain media been chosen? • Why was a particular image chosen? • Why was the image arranged that way? • Is the information contained in the image factual? • What devices have been used to get the message across to the viewer? • How has the message been affected by what has been left out or is not shown?
Assumptions	• What attitudes are assumed? • Whose voice is heard? • Whose voice is not heard? • What experiences or points of view are assumed?

(Bamford, 2003, p. 6-7)

Appendix E

Survey/ Questionnaire

The survey/ questionnaire was created in a google form, a weblink was used to access the portal.

Dear High School Photography Teachers,
My name is Kristi Oliver and I am a doctoral candidate at Lesley University in Cambridge, MA. For my dissertation study, I am examining how high school photography teachers perceive visual literacy. Because you are a high school photography teacher, I value your professional experience and perspective. I am inviting you to participate in this research study by completing the survey/ questionnaire below.

The following survey/ questionnaire will require approximately 15 minutes to complete. There is no compensation for responding nor is there any known risk. In order to ensure that all information is confidential, please do not include your name or school affiliation. Copies of the responses may be provided to my doctoral advisor and committee. If you choose to participate in this project, please answer all questions as honestly as possible and be sure to click "submit" at the bottom of the form. Participation is strictly voluntary and you may withdraw participation at any time.

Thank you for taking the time to assist me with this important research. The data collected will provide useful in understanding how high school photography teachers perceive visual literacy. If you would like a summary of the findings, please include your email address when prompted, it will be kept confidential and will not be shared. If you require additional information or have questions, please contact me at koliver@lesley.edu

If you have any concerns about the manner in which the study is being conducted, you may contact my dissertation advisor, Julia Byers at jbyers@lesley.edu. There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee Chairpersons at irb@lesley.edu

Thank you and best wishes,
Kristi Oliver

1. Please indicate the state in which you teach
2. How many years have you been teaching?
3. How many years have you been teaching photo?
4. What percentage of your teaching schedule is photography related?
5. How did you come to teach photography? Was visual literacy included in your teacher training?

SURVEY / QUESTIONNAIRE

For the purpose of this study, Visual Literacy will be defined as:

Visual literacy is defined as the "ability to interpret, comprehend, appreciate, use, and create visual media, using conventional as well as contemporary and emerging media, in ways that advance thinking, decision-making, communicating, and learning" (NAEA, 2017)

1. What aspects of visual literacies do you find important? [section heading]
   (the following prompts, a-j, will be rated using a Likert scale)

   a. Appreciation of photographs
   b. Analyze composition, formal and technical aspects of the photograph
   c. Use Conventional/ Traditional photographic practices (such as manual camera functions, darkroom printing)
   d. Use Contemporary photographic practices (such as mobile devices, social media, digital manipulation software)
   e. Design and create meaningful photographs / communicate original ideas
   f. Ability to think visually
   g. Ability to interpret, decode and comprehend photographs within the cultural context the image was created
   h. Evaluate photographs and their sources
   i. Use photographs effectively in various contexts
   j. Understand many of the ethical, legal, social, and economic issues surrounding the creation and use of photographs and access and use photographs ethically

2. Do you teach visual literacy? (Mitchell, 2008)
   a. Explicitly (where the acquisition of visual literacy is the goal of the lessons/ units)
   b. Embedded (within lessons/ units where visual literacy is not the primary goal)
   c. No
   d. Other: Please Explain

3. What strategies, approaches or resources do you employ when teaching visual literacy? (Choose all that apply)
   A. Visual Thinking Strategies
   B. Formal Art Analysis
   C. Critique
   D. Close Reading
   E. Collaborative Discussion
   F. Socratic Questioning
   G. Aperture On Sight
   H. Writing or Reading Artist Statements
   I. PhotoVoice
   J. Library of Congress Visual Literacy Exercise
   K. Textbooks
   L. Other (Please explain)

4. Which standards do you use? What is the relationship between the standards you use (or don't use) and visual literacy? (NAEA, ACRL)

5. Who or what influences your practice and implementation of teaching visual literacy or its inclusion in your curriculum?

6. Which photographers, images, bodies of work, or polar media you usually reference in your class when teaching visual literacy?

7. What is the most pressing concern you have about teaching visual literacy? What do you think the most pressing needs of your students as it pertains to their acquisition of visual literacy?

8. How do you think your students are applying visual literacy skills beyond the classroom? For example, are they using them in other academic courses, on social media sites, in other contexts where they create or consume images.

9. In what ways do your lived experiences impact your teaching of visual literacy?

10. Any other thoughts about Visual Literacy and its connection to high school photography classrooms you would like to share?

<u>About your school community</u>

1. In your estimation, how racially and ethnically diverse is your student population?
2. How many students enrolled in your school? What grades does your school cover?
3. How many students in your school qualify for free or reduced lunch programs?

<u>Thank you and follow-up</u>

6. Would you like to receive a summary of findings? Yes/No
7. Would you like to be contacted via email for a 40-minute follow-up interview?
8. Please include email address if answered yes to the questions above. Your email will not be kept confidential and will not be shared.

Resources

Aperture Foundation (2017). *Aperture On Sight: Teaching visual literacy through photography*. New York: The Aperture Foundation. Retrieved from: http://aperture.org/on-sight/

Association of College & Research Libraries (2011). *Visual Literacy Competency Standards for Higher Education*. Chicago, IL: American Library Association. Retrieved from: http://www.ala.org/acrl/standards/visualliteracy

Avgerinou, M. & Patterson, R. (2011). Toward a cohesive theory of visual literacy. *Journal of Visual Literacy*, 30 (2), p. 1-19.

Avgerinou, M. (2007). Towards a visual literacy index. *Journal of Visual Literacy*, 27 (1), p. 29-46.

Bamford, A. (2003). *The visual literacy white paper.* Sydney, Australia: Adobe Systems, Inc. Mitchell, W.J.T. (2008). Visual literacy or literary visualcy? In Elkins, J. (Ed.), *Visual Literacy*. (p. 11-30). New York: Routledge.

National Art Education Association (2017). Position Statement on Visual Literacy. Retrieved from: https://www.arteducators.org/advocacy/naea-platform-and-position-statements

National Art Education Association (2016). *Learning in a visual age: The critical importance of visual arts education*. National Art Education Association: Reston, VA.

National Core Arts Standards (2014) Retrieved from: http://www.nationalartsstandards.org

Yenawine, P. (2014). *Visual thinking strategies: Using art to deepen learning across school disciplines*. Cambridge, MA: Harvard Education Press.

Yenawine, P. (2003). Jump starting visual literacy: Thoughts on image selection. *Art Education*, 56 (1), 6-12.

Appendix F

Interview Guide

Review the Informed Consent Form and explain the procedure for the interview.

Questions:
1. Would you briefly describe your teacher preparation and/or training?
2. In your teacher training, were there any experiences that stood out as being particularly related to how to teach visual literacy?
   a. Can you describe that particular experience?
   b. Are you applying any of the content gleaned from this experience in your teaching of photography? In what ways does this manifest in your teaching?
3. Have you attended any specific professional development targeted at teaching visual literacy?
   a. Can you describe that particular experience?
   b. Are you applying any of the content gleaned from this experience in your teaching of photography? In what ways does this manifest in your teaching?
4. In what ways do you believe visual literacy is manifested in your teaching practice?
5. How do you describe visual literacy as it pertains to photography?
6. How do you engage students with photographs?
   a. In what ways do you facilitate discussions about photographs?
7. In terms of the standards you are using, what do you find most helpful in terms of teaching visual literacy?
   a. Could you explain how your standards address teaching visual literacy?
8. Could you elaborate on how your lived experiences impact your teaching of visual literacy?
9. We have about 10 minutes left, is there anything else you would like to discuss as it pertains to visual literacy?

Appendix G

Informed Consent for Interviews

Dear (Photography Teacher):

My name is Kristi Oliver and I am a doctoral candidate at Lesley University in Cambridge, MA. For my dissertation study, I am examining how high school photography teachers perceive visual literacy. Because you are a high school photography teacher, I value your professional experience and perspective. In order to gain understanding of the ways in which high school photography teachers understand visual literacy, I am surveying and interviewing high school photography teachers across the country. Because this is a qualitative research project, your unique personal perspective is of interest to me.

You were selected because you completed the voluntary questionnaire and indicated that you would be willing to elaborate on your responses in a short interview session. In order to gather information, or data, about your experience, I will interview you for 40 minutes and ask follow-up questions related to the ways you perceive visual literacy manifesting in your classroom. There is no physical or emotional harm inherent in this research. The interview will be audio recorded, upon completion I will transcribe the recording. If needed, I may contact you one more time by email to clarify my understanding of what you said or ask a few follow-up questions.

I will take all appropriate steps to preserve your privacy, confidentiality and anonymity. Your name will not be used. You will be given a pseudonym and other identifying characteristics, such as, school or city will not be shared with anyone. After transcription, the digital audio recording will be destroyed and copy of the transcript will be stored in my password-protected computer for up to, but not exceeding one year. You are welcome to receive a copy of the transcript upon request.

If you were to reveal something which Federal or State laws requires me to report (such as planning to harm someone or yourself), then I will be obligated to do so. Applicable Federal and State laws take precedence over confidentially. If you have any questions regarding what items could be reportable, please do not hesitate to ask.

I will analyze the interview data and identify any emergent themes within or across data. A one-page summary of the findings will be shared with you. Excerpts of your data such as short quotations (not your name or other identifying information) may be shared via the dissertation, conference presentations, publications, webinars, podcasts, or other formats as they directly relate to the research study.

Our professional relationship is important to me. Please let me know if you feel uncomfortable or wish to end the interview, for any reason. Participation in this study is completely voluntary. You are absolutely free to withdraw from the study at any time without question.

If you have any concerns about the manner in which the study is being conducted, you may contact my dissertation advisor, Julia Byers at jbyers@lesley.edu. There is a Standing Committee for Human Subjects in Research at Lesley University to which complaints or problems concerning any research project may, and should, be reported if they arise. Contact the Committee Chairpersons at irb@lesley.edu

Consent: I agree to participate in the research study described above (you will receive a copy of this consent form after you sign it).

_____
Participant's Name (print)

_____
Participant's Signature

_____
Kristi Oliver (Researcher)
koliver@lesley.com
(508)971-9331

Appendix H

29 Everett Street
Cambridge, MA 02138
Tel 617 349 8234
Fax 617 349 8190
irb@lesley.edu

Institutional Review

DATE: 8/16/18

To: Kristi Oliver

From: Dr. Robyn Flaum Cruz & Dr. Ulas Kaplan, Co-Chairs, Lesley IRB

RE: **IRB Number: 17/18 - 064**

The application for the research project, "**High School Photography Teachers Perceptions of Visual Literacy**" provides a detailed description of the recruitment of participants, the method of the proposed research, the protection of participants' identities and the confidentiality of the data collected. The consent form is sufficient to ensure voluntary participation in the study and contains the appropriate contact information for the researcher and the IRB.

This application is approved for one calendar year from the date of approval.

You may conduct this project.

Date of approval of application: 8/13/18

Investigators shall immediately suspend an inquiry if they observe an adverse change in the health or behavior of a subject that may be attributable to the research. They shall promptly report the circumstances to the IRB. They shall not resume the use of human subjects without the approval of the IRB.

Appendix I

Full List of Photographers Identified by Participants

Photographer	Number of Participants	Nationality	Time Period	Key Words
Berenice Abbott	1	American	1898-1991	Portrait New York City Architecture
Robert Adams	1	American	Born 1937	Landscape American West
Ansel Adams	17	American	1902-1984	Landscape Black & White
William Albert Allard	1	American	Born 1937	Documentary
Eve Arnold	1	American	1912-2012	Photojournalism Magnum Photographer
Diane Arbus	5	American	1923-1971	Portraits: Marginalized Populations
Anna Atkins	1	English	1799-1871	First woman to create a photograph Botanist Photo Book
Eugene Atget	3	French	1857-1927	Documentary Street Scenes
Richard Avedon	5	American	1923-2004	Fashion Portraits
Nigel Barker	1	English	Born 1972	Fashion
Uta Barth	1	German-American	Born 1958	Contemporary
Hippolyte Bayard	1	French	1801-1887	Positive Paper Prints First Photo Exhibition
Endia Beal	1	American	Present	Contemporary Marginalized Populations Portrait
Daoud Bey	2	American	Born 1953	Portrait Marginalized Populations
Robert Billington	1	English	Born 1954	Fine Art Landscape Portrait
Matt Black	1	American	Born 1970	Documentary Poverty

				Migration
Julia Blackmon	1	American	Born 1966	Family Dynamics
Phil Borges	1	American	Born 1942	Documentary Indigenous Tribal Cultures
Michael Bosanko	1	English	Present	Light Painting
Margaret Bourke White	3	American	1904-1971	Documentary Female War Photojournalist
Kwasi Boyd-Bouldin	1	American	Present	Urban Environment Time Magazine
Mathew Brady	2	American	1822-1896	Photojournalism Civil War
Brassai	1	Hungarian-French	Unknown-1984	Paris Street Photographer
Erin Brethaure	1	American	Present	iPhone Documentary
Claude Cahun	1	French	Unknown-1954	Gender-ambiguous Self-Portraits
Harry Callahan	2	American	1912-1999	Portrait Street Photographer
Jo Ann Callis	1	American	Born 1940	Fabricated Photographs
Julia Margaret Cameron	3	British	1815-1879	Celebrity Portraits
Robert Capa	1	Hungarian	1913-1954	War Photographer Photojournalist
Paul Caponigro	1	American	Born 1932	Light Painting Environment
Kevin Carter	1	South African	1960-1994	Photojournalist Pulitzer Prize
Henri Cartier Bresson	7	French	1908-2004	Humanism Candid Decisive Moment Street Photography Magnum Photographer
Jason Christopher	1	American	Present	Luxury Real Estate Fashion
Michael Clark	1	American	Present	Outdoor Adventure Sports Travel Landscape
Lois Conner	1	American	Born 1951	Landscape Large Format

Olive Cotton	1	Australian	1911-2003	Modernism
Gregory Crewdson	1	American	Born 1962	American Neighborhoods
Imogen Cunningham	1	American	1883-1976	Botanical Nudes Industrial Landscape
Edward Curtis	1	American	1868-1952	American West Native Americans
Gerald Cyrus	1	American	Born 1957	New York Music Scene Portrait
Louis Daguerre	2	French	1787-1851	Daguerreotype Process
Louise Dahl-Wolfe	1	American	1895-1989	Fashion
Roy DeCarava	1	American	1919-2009	African-American Jazz Fine Art
Jack Delano	1	Ukranian-American	1914-1997	Farm Security Admin. Portraits
Patrick Demarchelier	1	French	Born 1943	Fashion
KayLynn Deveney	1	American-Irish	Present	Documentary Photo Book Domesticity
Robert Doisneau	1	French	1912-1994	Street Photography Humanism Photojournalism
David duChemin	1	Canadian	Born 1971	World Humanitarian
Max Dupain	1	Australian	1911-1992	Modernist
Harold Eugene Edgerton	1	American	1903-1990	Flash Stopped Motion Stroboscope
William Eggleston	1	American	Born 1939	Color Photography
Alfred Eisenstaedt	3	German-American	1898-1995	Photojournalism Life Magazine
Elliot Erwitt	1	French-American	Born 1928	Advertising Documentary
Walker Evans	5	American	1903-1975	Farm Security Admin. Photojournalist
Stanley Forman	1	American	Born 1945	Photojournalist Pulitzer Prize
Martine Franck	1	Belgian	1938-2012	Documentary Portrait Magnum Photographer

Robert Frank	6	American-Swiss	Born 1924	Documentary American Society
Latoya Ruby Frazier	4	American	Born 1982	Advocacy Industrialism Environmental justice Healthcare inequity Family History
Toni Frissel	1	American	1907-1988	Fashion World War II
Anne Geddes	1	Australian	Born 1956	Children
Ralph Gibson	1	American	Born 1939	Narrative Surrealism
Andy Goldsworthy	1	British	Born 1956	Nature Land Art
Lauren Greenfield	1	American	Born 1966	Documentary
Philippe Halsman	2	Latvian-American	1906-1979	Surrealism Portrait
Cig Harvey	3	British	Born 1973	Surrealism Portrait Nature
Andres Hernandez	1	American	Present	Lifestyle Editorial
John Herschel	1	British	1972-1871	Poymath Experimental Botanical
Lewis Hine	3	American	1874-1940	Child Labor Laws Social Realism
David Hockney	3	British	Born 1937	Pop Art Photocollage
Teun Hocks	1	Dutch	Born 1947	Tragi-Comic Worlds Large Scale
Jenny Holzer	1	American	Born 1950	Neo-conceptual Feminism
Henry Horenstein	1	American	Born 1947	Portraits Anamalia
Horst P. Horst	1	American-German	1906-1999	Fashion
Ameen Howrani	1	American	Died 2010	Detroit Portrait
Philip Hyde	1	American	1921-1996	Landscape Conservationist
Omar Imam	1	Syrian	Born 1979	Surrealism Refugees
William Henry Jackson	1	American	1843-1942	Geological Survey American West
Lee Jeffries	1	British	Present	Humanist

				Spiritual Iconography
Per Bak Jensen	1	Danish	Born 1949	Landscape Industrial
JR	1	French	Born 1983	Public Art Portrait
Elena Kalis	1	Russian	Present	Underwater Portrait
Nadav Kander	1	Israeli- British	Born 1961	Portrait Landscape
Michael Kenna	1	English	Born 1953	Landscape Long Exposure Night Photography
Yousuf Karsh	4	Armenian- Canadian	1908-2002	Portrait
Andre Kertesz	1	Hungarian- American	1894-1985	Photo Essay Camera Angles Composition
Martin Klimas	1	German	Born 1971	Abstract Stopped Motion
Justin Kimball	1	American	Born 1961	Fine Art Portrait Narrative
Josef Koudelka	1	Czech-French	Born 1938	Photojournalism Magnum Photographer
Nick Knight	1	British	Born 1958	Fashion
Barbara Kruger	1	American	Born 1945	Photocollage Text Advocacy
David Lachapelle	2	American	Born 1963	Commercial Fine Art Portrait
Dorothea Lange	14	American	1895- 1965	Farm Security Admin. Great Depression
Joseph Lawrence (Joey L.)	1	Canadian	Born 1989	Advertising Social Media
David Leeson	1	American	Born 1957	Pulitzer Prize Iraq War
Helen Levitt	1	American	1913-2009	Street Photography New York City
Annie Liebovitz	10	American	Born 1949	Portrait Editorial
Peter Lik	1	Australian	Born 1959	Panoramic Landscape
Kevin Lowes	1	American		Commercial
Loretta Lux	1	German	Born 1969	Fine Art Surreal Portraits of Children

Danny Lyon	1	American	Born 1942	New Journalism Black Beauty
Zanele Muholi	1	South African	Born 1972	Race Gender Sexuality
Sally Mann	9	American	Born 1951	Portrait Landscape
Jim Marshall	1	American	1936-2010	Rock Stars Musicians
Mary Ellen Mark	2	American	1940-2015	Photojournalism Portrait Documentary Advertising
Chris Marker	1	French	1921-2012	Photo Essay Political Science Fiction
Chandra McCormick	1	American	Born 1957	Keith Calhoun Social Activism
Michael McCoy	1	American	Present	Environmental Portrait Documentary Black in America
Steve McCurry	1	American	Born 1950	Photojournalist National Geographic Afghan Girl
Peter McKinnon	1	Canadian	Present	YouTube Social Media DIY Photography
Ralph Eugene Meatyard	1	American	1925-1972	Portrait Masks
Vivian Maier	3	American	1926-2009	Street Photography
Joel Meyerowitz	1	American	Born 1938	Street Photography
Duane Michaels	2	American	Born 1932	Photo-Sequence Text
Gjon Mili	1	Albanian-American	1904-1984	Life Magazine Pablo Picasso
James Mollison	2	Kenyan	Born 1973	Where Children Sleep Time Magazine
Sarah Moon	1	French	Born 1941	Fashion Fine Art
Aida Muluneh	1	Ethiopian	Born 1974	Commercial Photojournalism
Vik Muniz	1	Brazilian	Born 1961	Pop Culture Waste Land
Osamu James Nakagawa	1	American	Born 1962	Cultural Divide Digital Photography

James Nachtwey	1	American	Born 1948	War Photography Photojournalist
Jimmy Nelson	1	British	Born 1967	Indigenous People Portrait
Shirin Neshat	1	Iranian	Born 1957	In Between Text Narrative
Arnold Newman	1	American	1918-2006	Environmental Portraiture
Helmut Newton	1	Australian-German	1920-2004	Fashion Vogue
Lori Nix	1	American	Born 1969	Diorama
Tony Oursler	1	American	Born 1957	Fractured-Narrative
Timothy O'Sullivan	1	Irish-American	1840-1882	American Civil War American West
Gordon Parks	7	American	1912-2006	Civil Rights Poverty African-American Glamour Photography
Rene Pena	1	Cuban	Born 1957	Contrasts Duality
Irving Penn	2	American	1917-2009	Vogue Magazine Portrait
Platon	3	British	Born 1968	Portrait
Dulce Pinzon	1	Mexican	Born 1974	Nostalgia Identity Cultural Frustration
David Plowden	1	American	Born 1932	Historical Documentary
Eliot Porter	1	American	1901-1990	Color Nature
Rankin	1	British	Born 1966	Portrait Fashion
Man Ray	1	American	Died 1976	Dada Surrealism
Mark Riboud	1	French	1923-2016	Far East China
Jacob Riis	1	American-Danish	1849-1914	Social Documentary Social Reform
Richard Rinaldi	1	American	1968	Portrait Landscape
Herb Ritts	1	American	1952-2002	Portrait Celebrities Cultural Figures
Richard Samuel Roberts	1	American	Died 1936	Portrait North Carolina

Tim Roda	1	American	Present	Staged Site-Specific Narrative Pinhole
Galen Rowell	1	American	1940-2002	Wilderness Adventure Photojournalism
Sebastiao Salgado	4	Brazilian	Born 1944	Social Documentary
Sandro Miller	1	American	Born 1958	Expressive Portrait
Charles Scheeler	1	American	1883-1965	Commercial Modernism
Jeff Sciortino	1	American	Present	Portrait Conceptual Commercial
Jamal Shabazz	1	American	Born 1960	Fashion Fine Art Documentary
Floria Sigismondi	1	Canadian-Italian	Born 1965	The Runaways Celebrity
Aaron Siskind	2	American	1903-1991	Abstract Expressionist
Paul Mpagi Sepuya	1	American	Born 1982	Intimacy Portraiture
Shamayim	1	American	Present	Fashion Editorial Time Magazine
Cindy Sherman	7	American	Born 1954	Conceptual Portraiture
Sandy Skoglund	1	American	Born 1946	Surrealism Installation Color Narrative
Taryn Simon	1	American	Born 1975	Secret Sites The Innocents
Lorna Simpson	3	American	Born 1960	Documentary Photo-Text
Alec Soth	1	American	Born 1969	Portraiture Loners and Dreamers
Pete Souza	1	American	Born 1954	Photojournalism White House
Eugene Smith	2	American	1918-1978	Photojournalism Photo Essay
Edward Steichen	2	Luxembourgish-American	1879-1973	Social Realism
Alfred Stieglitz	4	American	1864-1946	Social Realism American Modernism

				Portraiture
Stephen Stone	1	American	Present	Free-Spirit Documentary Portraiture
Larry Sultan	1	American	1946-2009	Psychological Landscape
Guy Tal	1	American	Present	Landscape
Henry Fox Talbot	1	English	1800-1877	Calotype Renaissance
Maggie Taylor	1	American	Born 1961	Narrative Portraiture Fine Art
Hank Willis Thomas	1	American	Born 1976	Conceptual Identity History Popular Culture
Michalene Thomas	1	American	Born 1971	Mixed Media Feminism
Arthur Tress	1	American	Born 1940	Staged Surrealism
Jerry Uelsmann	3	American	Born 1934	Photomontage Surrealism
James Van Der Zee	1	American	1886-1983	Harlem Renaissance Portraiture Documentary
Ellen von Unwerth	1	German	Born 1954	Femininity Advertising
Bill Viola	1	American	Born 1951	Technology Human Experience
Benjamin Von Wong	1	Canadian	Born 1986	Conceptual Hyper-Realism
Jeff Wall	1	Canadian	Present	Conceptual Constructed Narratives
Andy Warhol	2	American	1928-1987	Pop Art Multiples Celebrity Portraiture
Richard Warren	1	American	Present	Fashion
William Wegman	1	American	Born 1943	Weimeraners
Ken Weingart	1		Present	Celebrity Portraiture
Deb Willis	1	American	Born 1948	Black Culture Portraiture
Letha Wilson	1	American	Born 1976	Industrial Manipulated Prints
Gary Winogrand	2	American	1928-1984	US Life Social Issues

Weegee	1	Austrian-American	1899-1968	Photojournalism Street Photography
Carrie May Weems	3	American	Born 1953	African Americans Social Inclusion Human Experience Personal Identity
Edward Weston	5	American	1886-1958	Surrealism
Marion Post Wolcott	1	American	1910-1990	Farm Security Admin. Great Depression
Byron Wolfe	1	American	Present	Landscape Yosemite
Francesca Woodman	1	American	1958-1981	Self-Portraiture Female Figures
Anne Zahalka	1	Australian	Born 1957	Migrants Diverse Cultures