

DEVELOPING PHOTOVOICE THROUGH AN EDUCATIONAL LENS FOR THE EYE GENERATION

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ABSTRACT

Viewing the world through images and visual experiences has become an increasingly important facet of society in our digital age. In this qualitative study we examined the perceptions of 48 preservice teachers by discussing their own photographs. A participatory action research method, photovoice, was selected to provide the participants with opportunities to explore and analyze photographs. The goal was to develop visual literacy, critical pedagogy, and an understanding of the educational system's role in maintaining or challenging diverse values, policies, and perspectives. As a final project, the participants presented their photovoice projects and responded to reflective questions. One of the major findings was an increase in the depth of discussion and interpretation of photos. The analysis of the students' reflections and photos yielded themes of overcoming life's hardships, the importance of supportive people in their lives, a passion for teaching, and the significance of diversity and individual differences.

Keywords: Photovoice, Visual literacy, Preservice teachers, Photographic literacy, Qualitative

Introduction

Critical pedagogies and critical literature challenge the perceptions of individuals to discover new pathways for personal and social development as thoughtful global citizens (Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004; Yoon, Yol, Haag, & Simpson, 2018). An important form of critical literacy is visual literacy, which allows us to rethink the world through images, developing our perspectives on teaching and learning through historical, philosophical, cultural, and social contexts (Metros, 2008; Rabadán, 2015; Rawlinson, Wood, Osterman, & Sullivan, 2007). Through discussions of visual literacy, we develop understanding of the need to promote justice by questioning power relations, understanding inequities, discourses, systemic issues, and individualities in a global society (Aboukacem & Haas, 2018; Errázuriz, 2019; Messaris, 1994; Newfield, 2011; Potter, 2018).

In today's world, so much information is communicated visually (Aboukacem & Haas, 2018; Aboukacem, Haas, & Winard, 2018; Berkowitz, 2014; Kember & Zylinska, 2012; Fleming, 2014; Hobbs, 2016); therefore, it has become increasingly important for individuals to learn what it means to be visually literate (Kress, 2003; Lacković, 2020; Rothman, Daley, & Alder, 2020). For individuals to "read" or analyze an image, they must be able to understand the purpose and recognize the methods applied to convey a message (Hobbs, 2016; Kress, 2003). Consistent with media literacy, visual literacy is about analyzing and creating messages through images which can be used to persuade or influence opinion (Hobbs, 2016; Rabadán, 2015; Potter, 2018). Thus, it is essential for educators to support students in becoming visually literate. Whether the images appear on social media, in a picture book or text, on the news, or digitally altered photos on the cover of a magazine or other publications, images are a major factor that impacts our world (Ilich & Hardey, 2020; Kember & Zylinska, 2012). According to Metros (2008), individuals are stimulated by a culture mediated through visuals ". . . with easy access to the visually rich Web, photo dependent social networks, video saturated media, and graphically sophisticated entertainment and gaming" (p. 102).

Educators should ask questions such as, what do we teach? How do we teach? To whom do we teach? And who are we, as teachers, framing the educational system socially, politically, and institutionally? Furthermore, as educators, we must understand the power of visual literacy and use that to examine societal issues; as well as educational practices which perpetuate historic inequities associated with ethnicity, gender, culture, religion, and economic status.

Theoretical Overview

Photovoice

Living in a visual world, photographic images are powerful tools in promoting societal change and storytelling the world around us. The concept of photovoice was initiated in a rural village in China to understand and document

the perspectives of women in the community (Wang & Burris, 1997). Photovoice is a participatory action research method that uses self-photographed images to especially empower those marginalized in society (Ghosh, Sen, & Bose, 2019; Lögdberg, Nilsson, & Kostenius, 2019; Mayfield-Johnson & Butler, 2017; Papa, 2019). In their seminal work, Wang and Burris (1997) discussed the importance of allowing the participants to record the problems and strengths of their community; reflect on those findings with others through discussions; and aim at reaching policymakers to implement lasting changes (see also Jarldorn, 2019). Photovoice has the ability to impact communities, transform policy, and provide critical analysis of one's personal life and their environment (Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004).

Photovoice aligns with Freire's (1970) position on socially and educationally empowering practices. The opportunity for the participants to create and use their cameras to advocate for important issues gives them voice and enables them to actively shape their communities (Coemans, Raymakers, Vandenabeele, & Hannes, 2019; Sarti, Schalkers, Bunders, & Dedding 2018). Mayfield-Johnson and Butler (2017) illustrated how photovoice can be used as an empowering tool by allowing the participants to construct their own voice, build their community, and become activist citizens. Freire (1973) elaborated on the three levels/states of consciousness and explained how empowerment is related to the gradual steps to achieve the highest level of consciousness. The individual moves from the passive state, which is called the magical level of consciousness, to the naïve state of consciousness. The naïve state begins by recognizing personal problems and social issues, but no connections are made to external sources or environment. Critical consciousness is the final state where the individual realizes the relationship between their individual condition and the social and political forces affecting them (Freire, 1973). Photovoice discussions and community engagement can help facilitate the awareness of problems within one's community (Mozaffarian, 2019; Padilla, Matiz-Reyes, Colón-Burgos, Varas-Díaz, & Vertovec, 2019); thus, promoting empowerment through critical consciousness of their personal experience and the community at large.

Literature Review

Photovoice for Social Change and Empowerment

Participatory action research can be used to engage youth and young adults in promoting policy change and social justice issues within their communities. Goodhart et al. (2006) designed a photovoice project to empower Rutgers University students to share their voices about problems on their campus. Seventy-five students took part in the study while also enrolled in health training courses. The students were given disposable cameras and themes to keep in mind while taking photographs around the campus. Some of the themes were set to question about healthy lifestyles at Rutgers University, social inequalities on campus, accessibility of drugs at the university, and ideas of love and kindness within the students' community. The outcomes of the study suggested a plan for including healthier items in the vending machines, increasing health education in the living halls for students, and keeping in touch with students' ideas for solving other issues on campus. More importantly, the participants felt a sense of empowerment and confidence by photographing and discussing those issues with fellow students and university policymakers.

Health concerns were discussed in a myriad of studies using photovoice (Esau et al., 2017; Padilla, Matiz-Reyes, Colón-Burgos, Varas-Díaz, & Vertovec, 2019). Photovoice enabled adolescent youth, in a rural part of Uganda, to use disposable cameras in order to capture different health concerns in their community, which they later discussed with their peers (Esau et al., 2017). The purpose of the study was to use photovoice in order to uncover the health status of rural inhabitants in Soroti, Uganda. The students were equipped with disposable cameras and notebooks to document their journey. They were given some guiding questions related to health issues within their community for one whole week. The themes uncovered through the photographs and field notes highlighted issues of hygiene, nutrition, and cleanliness. The researchers noted the effectiveness of photovoice as a participatory action research and its power to stimulate reflective and critical thinking.

Photovoice and camera journaling can also be conducted by children. In their study, Sarti, Schalkers, Bunders, and Dedding (2018) used a photovoice project to allow impoverished children in the Netherlands to meet and establish dialogue with policymakers to create a plan for their neighborhood change. The researchers explained to the children that their stories are interesting and that it is their right to have their concerns heard by policymakers. The children were given cameras and were given instructions on how to capture pictures with respect to ethics and people's privacy. In the process of data collection, Sarti and colleagues used interviewing to study the children's insights from the taken pictures. Once the children compiled a collection of photos, they selected a few to undergo discussions with their fellow researchers and answered questions such as: What is this? What is happening here? Why did you take this photo?

The interviews were not only a valuable source of data for the researchers, but also a powerful training opportunity for students to harness their storytelling skills in preparation for multiple exhibitions with policymakers at the local library and a few schools around the community. The work of children and their presentations to local

policymakers spread to the Amsterdam city council where a strategy meeting took place to discuss the future policy of children living in poverty using their photos and discussions.

In a similar study about impoverished communities, Shah's (2014) conducted a photovoice research to discern the social dynamics and empowerment of adolescent girls in the western region of India. In this research, photovoice allowed Indian girls to express themselves and improve their critical thinking skills and analysis of traditional gender-based roles. This study serves as an important catalyst to spark social change and alter the power dynamics of traditional gender roles, while empowering adolescent girls to think critically about their society, schooling experiences, and future careers.

Photovoice has also been a powerful tool to raise issues related to immigrants and immigration policies (Mozaffarian, 2019; Sahay, Thatcher, Núñez, & Lightfoot 2016). Sahay et al., (2016) used photovoice to showcase the effects of Deferred Action for Childhood Arrivals (DACA) on the lives of Latino youth. The study used photovoice as a participatory research method to allow the youth to express their concerns and perceptions of DACA in relation to their future goals and dreams. This research is significant in highlighting the problems immigrant families and youth face in reaching higher educational opportunities. The findings of this study were based upon the photographs and transcribed discussions during each session. One notable finding was the effect of DACA ineffectively helping young immigrants to pursue higher education opportunities in North Carolina. The impact of this study encouraged the participants to raise awareness about DACA and immigration policies to the public, educators, administrators, as well as government officials.

In relation to healthcare and immigration, Deeb-Sossa and Flores (2017) conducted a photovoice research to analyze migrant farm-working families and children's experience of hardships, depression, and anxiety stemming from the fears of deportation and dangerous working conditions. This study is seminal because it raises awareness about the struggles of migrant farmworkers as well as it encourages immigration reform and policies. The method of photovoice helped provide an outlet for the participants to express their feelings, fears, and share their perceptions with their community, family, and friends.

These research studies illustrate how photovoice is one method used to empower individuals to make improvements for themselves and for others in society. The involvement of participants to create and share their unique perspectives helps encourage those who feel voiceless to speak out. Photovoice can be used in a variety of ways to highlight social injustices, as well as provide information on educational institutions. When educators use photovoice in the classroom, it can spark discussions on ways to change or advocate educational policies affecting both students and teachers.

Photovoice to Improve Pedagogy and School Climate

Photovoice has also been used as an outlet to share the strengths, issues, and ways to improve educational needs for both students and teachers. Roxas, Gabriel, and Becker (2017) conducted a photovoice research to inform school counselors about the problems immigrant middle school students faced with discrimination. The students were provided with cameras to document their home and school lives. After collecting and discussing their photographs, the students showcased their images in a month-long exhibition with a special reception. The perspectives and realities of these middle school students brought more attention to their needs in the school system regarding racism and prejudice

Building on Roxas et al., (2017) work, Pollock (2019) investigated students' experiences at school and suggested ways to promote relationship building between teachers and peers. The participants were identified as students with reading difficulties and were given the opportunity to highlight their perspective of school. The researchers found that the students place a high value on the teacher-student relationship and consider it a key element of their success. This research can further guide teachers in how to reach struggling readers by creating positive student-teacher rapport in the classroom, the school, and the community beyond the school walls.

Additionally, Treadwell and Taylor (2017) used photovoice to empower middle school students to analyze their physical activity at school and at home. The students in a physical education class developed their voice by advocating for more physical activity access around school. The students also reflected upon their own physical practices at home and led initiatives of self-improvement.

Photovoice can be used to understand teachers' perspectives of pedagogy as well. Phatudi (2017) developed a photovoice project with preschool teachers to investigate successful pedagogical approaches of teachers. The researcher found that caring was the most significant attribute to a positive learning environment. When teachers care about their students, it creates a nurturing educational atmosphere, which benefits all students.

In a micro educational setting, photovoice can provide an innovative way to create lessons and engage students in a foreign language-learning curriculum. Villacañas de Castro (2017) enabled participants in Valencia, Spain, to express themselves in English by taking photographs about important socio-cultural issues, such as political and economic divisions between social classes. The future English as a Foreign Language (EFL) teachers in Spain wanted to incorporate photovoice projects in their classrooms in order to modify the outdated memorization and grammar drills. Photovoice has the potential and power for both students and teachers to advocate for themselves, their community, and their own learning.

Summary and Analysis

Photovoice provides a platform for communities to speak out on their problems. It is an empowering way to strengthen community involvement, develop global awareness, highlight various societal issues, instill participants with personal strengths, as well as support pedagogical research through photovoice. The research indicates the benefits of using photovoice to understand the perspectives and concerns from the participants to promote social justice awareness as well as share their photovoice on topics of personal interest they find meaningful. Photovoice can empower women and girls, vulnerable populations experiencing poverty, educators who want to connect with and understand their students, and those who want to influence policymakers to make societal changes. The research articles using photovoice, as a participatory action research, allows those who feel voiceless or insignificant to express themselves visually and become an advocate for themselves and/or their community (Wang & Burris, 1997).

Much of the photovoice literature focuses on health issues, community empowerment, and social justice issues. When used in the educational setting, studies found that students' feelings and perceptions were valued through the use of photovoice. The value of visual literacy is also channeled through photovoice research by giving the photograph the power of visual analysis and reflection. As a methodology, photovoice can be applied in all settings, whether it is for reasons of community and social change or for educational purposes. Although much of the photovoice research is done in vulnerable communities, there is a lack of studies conducted with college students, specifically preservice teachers. It is important to research photovoice with preservice teachers because they are the youth's future educators and will be working directly to impact students. Preservice teachers deserve to showcase their perspectives of community problems and issues using photovoice to better educate the next generation. We need further research on preservice teachers and how photovoice influences their perceptions of community and social change.

The literature shows the power of photovoice in bringing communities together, understanding various perspectives, and creating a need for social advocacy. It can also highlight injustice and create a sense of awareness to fight for change. In the world of education, photovoice inspires the use of critical thinking and applying it to all images seen on and off the screen. Analyzing visual images also instills a need for empowerment and sparks the necessary community changes to value the importance of those unable to voice their perspective and beliefs. This ability to analyze the visual can lead to empowerment, while raising critical consciousness (Friere, 1973). Photovoice research with preservice teachers should be further explored to analyze the benefits for both future teachers and their students.

Method

Participatory action research (PAR) was applied in this study as an approach to inquiry, which involves researchers and participants working together to understand social issues and promote social change. PAR draws on the paradigms of constructivism (Vygotsky, 1980) and critical theory (McLaren & Giarelli, 1995) and may include a variety of qualitative and quantitative methods; however, a qualitative approach only was applied in this study. It is an iterative cycle of research, questioning, action and reflection (Wang & Burris, 1997). From a constructivism paradigm, PAR researchers and participants construct their own meaning through experiences and reflection. This is applicable to the photovoice experiences as the researcher and participants worked together to explore and develop deeper understanding of visual images by looking through different lenses. The participants delved deeply into exploration of the images to determine the various messages conveyed. In reference to critical theory, it applies to the photovoice process as a social philosophy in which participants undertake self-reflective inquiry to develop a greater awareness of societal problems, social injustices, or environmental issues in order to empower and stimulate people to take action. Reflective analysis allows for critique of social issues, personal beliefs, cultural differences, and reveals injustices and power structures.

Photovoice is a qualitative visual PAR method as participants actively research issues, question, analyze and reflect through the lens of a camera, as well as their personal lens when viewing the world. Photovoice builds on Freire 1970's message of the need for empowerment education by supporting knowledge and understanding through

reflection and in-depth discussions on meaningful issues. In essence, it allows for ‘voice’ of individual perceptions and interpretations.

Research Questions

The following research questions were addressed in this study:

1. What are preservice teachers’ perceptions of how messages are conveyed through visual media before participation in photovoice visual analysis?
2. How does participation in photovoice visual analysis develop awareness of social justice issues among preservice teachers?
3. How does participation in photovoice change the perceptions of preservice teachers with regard to the importance of visual literacy instruction and experiences in the classroom?

Participants

Convenience sampling was applied, since the participants in this study were preservice teachers enrolled in a literacy methods block at a university in southeast Texas. The preservice teachers were seeking certification in early childhood education through Grade 6, with eight seeking certification in bilingual education, and four seeking certification in middle grades (4-8) language arts and social studies. A total of 48 preservice teachers participated in this research study, 22 in the fall semester and 26 in the spring semester. Presented in Table 1 are the demographics for each group per semester.

Table 1 *Demographic Data for Fall and Spring Literacy Methods Preservice Teachers*

Preservice Teachers	Fall	Spring
Gender		
Female	22	24
Male	0	2
Age range		
20-24	20	16
25-29	2	5
30-34		3
35-39		2
Ethnicity		
White	15	10
Black	3	5
Hispanic	4	11

As illustrated in the table, the demographic make-up of the two semesters was quite different. Also noteworthy, only one student in the fall semester was married and had children; however, in the spring semester 11 of the preservice teachers were married and eight had children.

Setting

The literacy methods block included three courses in which the preservice teachers completed field experience in local schools, then attended class in the afternoons. Additionally, the literacy methods block in the fall took place in a small rural district about 15 miles south of the university, whereas the spring literacy block was held in a suburban area about 40 miles south of the university. The same professor, who is also one of the researchers, taught both literacy methods blocks.

Role of Researchers

Three researchers developed and implemented this study. One researcher served as the professor of the three courses for both semesters and implemented the initial phase of the study as part of the instructional plan, as well as guided the preservice teachers through various photovoice experiences. The other two researchers served as doctoral research assistants in the literacy program at the same university. One of the doctoral researchers has extensive knowledge and experience with photovoice and the second has much expertise in the area of social and new media literacy.

Each researcher maintained a different role. The professor of the course introduced preservice teachers to photovoice, guided classroom experiences, and encouraged reflection and deeper discussions of social justice issues. As the semester progressed the preservice teachers became more active participants and the professor assumed a less active role in the discussions. As the phases of the study were implemented, the preservice teachers took control of their own learning experiences through researching, questioning, and reflective practices.

The professor took anecdotal notes and recorded comments and meaningful dialogue as preservice teachers shared their thoughts and photos. The other two researchers were not involved in the classroom experiences; however, they actively engaged in handling and analyzing the final written reflections and projects of the preservice teachers. They looked for themes in presentations and changes in perceptions noted by the preservice teachers as to how they grew and learned through their photovoice experiences. Of note, preservice teacher names and identifying factors were excluded on reflections and photo projects on the final submissions for reflective analysis. The artifacts collected for the two semesters were completely anonymous.

Procedures

Through a Socratic approach of critical thinking discussions, participants expressed their thoughts and feelings about a variety of images and photographs throughout the semester-long photovoice experience. The study was implemented in phases throughout two different 15-week semesters. There were five phases implemented sequentially each three weeks in the semester. The phases were designed to slowly develop preservice teachers’ understanding of the importance of visual media and critically analyzing the messages they convey. In addition, we wanted preservice teachers to experience visual literacy in various ways prior to completing their own photovoice project. Lastly, our goal was for preservice teachers to become aware of the influence visual media has in our society and the significance of including visual literacy skills and strategies in the classroom. An overview of the five phases is provided in Table 2 and detailed in the following discussion.

Table 2 *Phases of Visual Literacy Experiences*

Phase	Time	Practice-based Experience	Data Sources Applied
1	week 3	Introduction to visual literacy	*Preservice teachers selected personal photos *Selected photos by researchers
2	week 6	Learning to analyze photos	*Researcher selected photos and images
3	week 9	Individual and group discussions of photo analysis of specific themes	*Researcher presented photo collections of several themes
4	week 12	Learning how to select photos to convey deeper meaning	* Preservice teachers shared photos they selected and participated in group discussions of photo analysis
5	week 15	Preparing and sharing photovoice presentations Reflection of experiences written and discussed in class Responses to open-ended questions	* Preservice teachers created Photovoice projects * Preservice teachers selected method of presentation and theme

Phases of Implementation of Visual Literacy Experiences

Phase 1. During the third week in the semester, preservice teachers were asked to take out their phones and scroll their photos, then select one that is special to them. When photos were selected they were instructed to trade phones with the person next to them. The preservice teachers were only asked to trade phones; no instructions were given to discuss or share details. A class discussion was held regarding the selection of their photos, the meaning it had for them personally, and why they felt the need to tell others the background and meaning of the photo they selected.

Next, the professor showed the class several black and white photos of segregation from decades ago (<https://allthatsinteresting.com/segregation-in-america-photos>). The class looked at each photo for several minutes then the first photo was displayed once again. Preservice teachers were encouraged to linger on the photo and consider all that was revealed through the image without talking to one another. One at a time the photos were shown again. This was followed by selecting one photo to display a third time. They were then asked to turn to the person next to them and discuss what they saw in the photo on the screen and share their thoughts about the image.

Phase 2. During the second phase of visual literacy experiences, which was implemented during the sixth week of each semester, the professor displayed photos of various social justice issues on poster paper around the walls of the classroom. Preservice teachers were strategically placed in small groups with classmates they generally did not sit with to allow for different perspectives and discussions. Then they took a gallery walk and as they discussed the photos, they made notes of their thoughts on the paper. They wrote themes, feelings, personal connections, messages they felt the photographer was conveying, and their thoughts as to the issue displayed. In addition, they

were to note questions they may ask their students if they were to share the same images with them. The images were selected from various public domain websites. Some of the images shared include:



Phase 3. During the ninth week of the semester the professor selected images to share with preservice teachers once again. The photos were collections of images of hands, eyes, and other features of different individuals selected from public domain websites. Some images shared include:



Preservice teachers discussed the meaning and connections they made to the images. They were asked to compare the color, style, and angle of the images, then to work in small groups to decide on a theme for collections of photos to convey an intended message.

Phase 4. During the twelfth week of each semester the preservice teachers were asked to select photos to share with the class that they felt were meaningful and conveyed a strong message. They were informed that they would not share their thoughts on the images but listen to the thoughts and ideas of others. The images were numbered, then preservice teachers displayed their images on the tables throughout the classroom and took a gallery walk while making note of their personal thoughts about each photo. After making individual notes, they discussed their thoughts about each photo in small groups. Then as a group, they combined their notes and thoughts to develop a

group summary and theme for each of the photos which they shared in a class discussion. After groups had presented their themes and thoughts, they were asked to share their purpose and intent in choosing their one photo to share with the class.

Phase 5. In week 15, the final phase of the visual literacy experiences study, preservice teachers were asked to take their own photos and create displays to share with the class. They take personal photos or choose from public domain images. In addition, they could select one photo or a group of images, there were no parameters as to how they could present their projects. In addition, they were asked to submit a written reflection of their photovoice experiences throughout the semester, as well as reflect on their personal photovoice project. In addition, participants responded to two open-ended questions about their perceptions of implementation of photovoice in their future classrooms.

Data Analysis

After collecting the preservice teachers’ written responses, photographs, and presentations, thematic analysis was applied to analyze and uncover themes from the data collection. According to Boeije (2002), comparison of data provides opportunities for qualitative researchers to be able to “do what is necessary to develop theory more or less inductively, namely categorizing, coding, delineating categories and connecting them” (p. 303). Miles and Huberman (2014) defined coding as “This part of analysis involves how you differentiate and combine the data you have retrieved and the reflections you make about this information” (p. 56).

The six phases of thematic analysis outlined by Braun and Clarke (2006), helped guide the process for codifying and selecting themes. The first phase included reading and rereading the reflections to become familiar with their responses, as well as analyzing the pictures from the photovoice project. The second phase involved coding the data with examples from the written responses, while the third phase categorized those codes into formulating potential themes. The fourth phase involved checking and reviewing the themes to match the categories of codes and creating a thematic map of the data. The fifth phase clearly defined and selected the themes using information from the categories of codes and the thematic map. The sixth and final phase was the selection of specific examples of quotes and pictures to illustrate the defined themes from the data collection. Table 3 presents the phases of thematic analysis applied.

Table 3 *The Six Phases of Thematic Analysis (Braun & Clarke, 2006)*

Phase 1	Reading and rereading the writing prompts to become familiar with their responses
Phase 2	Coding the data with examples from the written responses
Phase 3	Categorizing codes into formulating potential themes
Phase 4	Checking and reviewing the themes to match the categories of codes and creating a thematic map of the data.
Phase 5	Defining and selecting the themes using information from the categories of codes and the thematic map.
Phase 6	Selection of specific examples of quotes and pictures to illustrate the defined themes from the data collection.

Procedures for Analyzing the Reflections and Projects

The doctoral students analyzed the written reflections and projects, then shared their findings with the professor. Because the professor had been involved in the classroom experiences, only the two doctoral students analyzed the reflections and projects. Through open coding, the doctoral researchers individually read the reflections, highlighted keywords, and categorized all projects under various topics. As Creswell (2007) stated, open coding serves the primary function of helping qualitative investigators develop categories. After the process of open coding, the two doctoral researchers compared their codings and categorized the initial coded data into smaller meaningful subsections which is called the process of axial coding (Leech & Onwuegbuzie, 2007). The final process of selective coding, consisted of the two researchers developing themes.

After the themes were determined the three researchers met and discussed the findings. The professor was able to verify the themes from observations, anecdotal notes from class sessions, their final presentations, and discussions with preservice teachers in class; therefore, triangulating the data analyses. The four themes which emerged were: passion for teaching and education, overcoming tragedy and personal endurance, love and family, and diversity and embracing differences. Of significance, analysis of the two groups of students in regard to themes revealed more of the preservice teachers in the fall literacy methods block selected photos with themes of a passion for teaching, as well as inequities, diversity and embracing differences. Whereas the group in the spring, with a wider age range, shared more photos with themes of overcoming tragedy and personal endurance, as well as love and family.

Findings

The findings of this study are two-fold and are presented below through discussion of themes which emerged through analysis of reflections and final projects, as well as discussion of observations of preservice teachers' participation in photovoice experiences in each phase. The selected statements noted below include key words in the reflections to support the four overarching themes.

Noteworthy, when developing final projects for presentation, most participants selected photographs and themes of either societal issues or personal connections. Although the focus of the photographs shared and discussed throughout the semester were of community, global, and societal issues, when participants were tasked with creating and applying their photovoice in a project many took a more personal approach.

The topics of some included overarching themes of educational disparities and mental health awareness and were passionately discussed when presented, whereas others chose personal challenges and overcoming tragedies in their lives. There were no connections to local or community issues, the themes were broad in focus or narrowly focused on personal and family issues. In addition, students in the fall literacy methods courses presented the broader themes of societal issues, with more students in the spring focusing on personal struggles and family connections.

Of importance, in final written reflections all preservice teachers stated they felt the power and importance of implementing photovoice and visual literacy in their future classrooms. They shared they were empowered and enjoyed the deeper conversations and hearing the perspectives of others in the class. All agreed the process would be beneficial to their future students in becoming aware of issues and learning to become an active and contributing member of society.

Passion for Teaching and Education

A majority of the preservice teachers, from both classes, discussed the importance of education, their passion for teaching the youth, and reflecting on their personal journeys into the education field. Reflections revealed a passion for becoming teachers and helping students learn and grow through many educational opportunities and experiences. This connects well to Freire's (1970) beliefs in socially and emotionally empowering of students through education.

One student said, "I am so passionate about my future profession and each one of the interactions with these kids has helped me on my way to becoming a teacher." Another student wrote, "I chose the theme passion, because I truly have a passion for people especially the youth. The youth is our future and having them around shows me that there is so much in the world to be done for these young children."

Another student noted, "The theme of my photovoice is the difference in education between the United States and South America....That made me think of how lucky and privileged we are here in the U.S. that sometimes I feel education is taken for granted. This reassured me of how badly I wanted to become a teacher and teach abroad to students that don't have the luxury we have here in the U.S."

This student, from South America, became very emotional when presenting her project as she discussed inequities in education for students in South America. She chose to use color and black and white photos to highlight the differences in educational opportunities between countries. She further explained that when she came to the United States she felt overwhelmed, but excited about all the resources and books available to students. However, she was dismayed that the students in her new school seemed to take everything for granted and were not appreciative. (See Appendix A for project presentation)

In reference to a trip to Cuba, a student shared, "We take our lifestyles for granted and complain when material things get damaged or lost. There are people and children with far less who are 10X more excited about the

community and the education they receive. They get excited to take you on a tour of their little town, and their school with holes in the ceiling, concrete that is cracking, and walls that are crumbling down. These girls were ecstatic to find out I was going to become a teacher.”

One preservice teacher expressed her passion for teaching, “I have always wanted to work with children, and I may have been lost on the way, but I found where I needed to be. Helping children is our job as adults. They are our future. We all see importance in children but we need a reminder that they are why we do this.”

Similarly, another preservice teacher wrote about her trip to classrooms in Honduras, “Although these schools have little money for nice things, they are rich in knowledge and love for their school. These classrooms all had very little supplies, decorations, books, little to no electricity, yet they were all filled with students who were eager to learn and excited to be there.”

Lastly, one participant artistically wrote, “The message I was hoping for my reader to learn from it is that our students are like butterflies. We feed them so much knowledge, and then they get wrapped in all this knowledge, and then one day you hope to see them spread their wings and become something amazing.”

Overcoming Tragedy and Personal Endurance

Participants from both groups shared personal stories of how they overcame adversity and tragedies in their life. However, more participants in the spring who were older shared experiences with challenging circumstances versus the group in the fall. They also expressed the importance of endurance and perseverance needed in hard times. This is evidenced in the previous studies discussed regarding health issues in rural areas of Uganda.

One participant wrote, “My message that I hope readers would take away from this is that everything may not come easy but if you continue to strive for what you want you will get what you want. I want to show people that everyone goes through something, good or bad but there is a way to overcome it.”

This participant shared several personal challenges she had overcome and how these events helped her learn she was stronger than she thought and had the ability to push through and persevere. She wanted to bring awareness that we all have the power to overcome personal challenges. For each of the photos she selected for her project she shared a struggle or challenge, why the photo was representative of her feelings or situation, and how she overcame the problem. (See Appendix B for project presentation on overcoming obstacles)

Another shared, “I have learned from this project that I have overcome a lot in life. Through these pictures different things were happening in my life. I’ve lost dear ones and gained loved ones through my 23 years on earth.”

This preservice teacher discussed her brother’s autism and muscular dystrophy, “A sister and brother bond from the beginning is strong no matter the circumstances. I hope that the readers/viewers see the first picture and see the love between my brother and I and the process of his surgery. Also, the smile he has in the last photo shows that just because he has had all these things happen to him he can still have a smile on his face.”

In addition, one participant wrote about her brother’s painful football game accident, in which he tore his ACL and meniscus. She wrote, “He could have let this injury take away the joy he finds in sports, he could have let it stop his dreams, but he didn’t. Through this injury he found pieces of himself he would have never found otherwise, he grew to be a stronger person, a truly resilient individual.”

Another preservice teacher talked about her emotional miscarriage, “The picture is an empty basket. For newborn pictures, most of the time they always put the newborn baby in a basket to take newborn pictures. However, this basket is empty, representing the loss of a baby. Not only does it represent loss, the empty basket represents the emptiness that mothers feel after miscarriage. However, in the picture, you see a rainbow in the back. The rainbow represents hope, a rainbow after a storm.”

One shared a personal story about her mother, “My mother had to get emergency surgery all because of the fibroid she had in her uterus. In which she was in pain in the hospital and she kept smiling through all of it. My mom was brave and kept her perseverance. The message I want people to take away from my photos is to never give up.”

Love and Family

Preservice teachers in both classes focused on their loved ones and the impact of family on their lives; however, more participants in the spring group who had children shared photographs of families than the fall group. The fall group who focused on this theme generally selected one individual as the focus of their project.

One participant expressed, “The theme for my photo project is love. Each section is a period of my life and it has pictures of some of the most important people in life during that time, some are there throughout the whole poster and some are only there for a short time....the love I receive or have received from these people got me to where I am today.”

Another wrote, “The message I hope readers would take away as they view my project is love, peace, happiness, and family. I want the viewers to see that everyone included in my photo voice project helped in some way get me to where I am now.”

A participant also shared, “The theme for my project is World Impact, more specifically (family) from all around the world, who they are to me, and what impact they have had on my life.”

Another shared her adoption story, “The theme of my picture is family or the start/beginning of my life....This photo is a message of happiness and togetherness. It shows how families can start in different ways. The goal/purpose was to show something that is meaningful to me and represents a huge part of my life.”

Further, a participant wrote about the love she has for her mother, “The theme of this Photovoice is that of time and a mother’s love. My mom is my best friend and has been since the beginning of my memories....The message I hope that readers take away as they view this is that of holding tight to those who matter most.”

A young male in the class selected three very vivid photos of a caterpillar transforming into a butterfly. He shared that he and his wife had been taking care of two foster children and were in the process of adopting them. “I chose these photos for several reasons, I feel this is our life right now as a family, we are changing into a beautiful butterfly together. I also chose this because it represents how our boys have changed from scared and somewhat challenging children to secure and happy children. Change can be a wonderful thing; we just need to seek beauty in the process.”

Diversity and Embracing Differences

Another theme from both classes touched upon the idea of diversity and tolerating people from all walks of life. More students in the fall literacy block selected diversity and tolerance as a theme versus the spring group. In addition, the projects created for this theme were in collage formats with multiple photos included to show a wide range of topics to demonstrate diversity. Similar to the photovoice study of Núñez and Lightfoot (2016) regarding immigration and DACA to showcase the concerns of youth, participants in this study selected social injustices to highlight as their final projects and to bring voice to embracing diversity and understanding the challenges of others.

A student wrote, “I hope when people look at my collage, they see that acceptance comes in many shapes and forms. As well as the fact that just because someone may be different no matter how extreme that difference is, they are no less of a person and no less deserving of someone’s acceptance than someone that may be more typical.”

This participant was very open throughout the semester about her struggles with mental health and depression and wanted to bring awareness to the problem. She made several connections to facial expressions, emotions, and body language of individuals in images shared in photovoice discussions. When sharing her collage she explained why she selected each photo to include in her project and connected to how she felt at times. (See Appendix C for project presentation)

Another student shared about the importance of diversity, “I want them to see the genuine and great depth of a friendship between people of two totally different cultures. The entire purpose is to show the viewer that despite differences in language, religion, ways of life, dress, interests, and way of thinking, we are all capable of connecting with one another and if we embrace differences, we may just find ourselves with the richest of relationships.”

Similarly, another student discussed how each of us is unique, “The theme of this photo is the many differences and characteristics of people in the world. I chose this theme, because I feel that it is important to understand that all people are unique in their own way and have their own daily troubles.”

In regard to diversity in the classroom, this student wrote, “Instead of separating our students, we should use the diversity in our classroom as an opportunity to teach them about the many, many, many places in the world, which is clearly what the students in my picture are doing...learning about each other’s backgrounds.”

Additionally, this student proposed, “However, the idea is to emphasize the harmony amongst various aspects highlighted in the image, despite their contrasting character which distinguish and stand out separately speaking of their individuality, they are yet united together to run the ecology of the universe. This phenomena is indeed the key to run the social life of human beings as well. People of various kinds must stand up together and bring about change for the better to run the world in a better way.”

Educational Application to Future Teaching

When the participants completed the photovoice presentations, they were asked to respond to two writing prompts. One of the questions asked the preservice teachers if they would do a similar photovoice project with their future students, why or why not? The second question asked how they might implement a photovoice project in their classroom and what they hope students will learn.

Collectively, all participants in this study agreed they would implement a photovoice project, or something similar, in their future classrooms and found it to be an important way to incorporate visual literacy into the classroom and support meaningful discussions of important personal and social issues. Many replied that they would follow a process similar to their experiences throughout the semester of sharing photos and encouraging deeper discussions and exploration of social issues, then gradually progressing to students selecting meaningful photos to share. The participants expressed visual literacy needed to be taught and nurtured to help students develop their visual literacy skills. The majority of preservice teachers noted that they had never heard of visual literacy and in today’s world it is a very important approach that should be included in literacy programs.

Consistent with research in schools previously discussed, the participants shared the importance and possibilities of a photovoice project in allowing students to express their feelings, views, and passions through images. Some shared that they want students to know that images speak for themselves and convey messages, emotions, memories, and bring awareness to school, community, or societal issues. As future teachers, many participants noted visual literacy as a good tool to support many literacy strategies, as well as broadening students’ views of the world.

Through the responses of all 48 preservice teachers it was revealed that 100% felt visual literacy experiences and practices should be an integral part of teaching and learning for all students at every grade level. They each shared the importance in teaching strategies to read and make meaning of images as increasingly important for students, as they are in a world which is more visual than ever before and images are readily available at the touch of a finger.

Preservice teachers revealed awareness of the increasing importance for students to learn what it means to be visually literate, which is consistent with previous researchers (Kress, 2003; Lacković, 2020; Rothman, Daley, & Alder, 2020). Participants’ responses connect well to the beliefs of Hobbs (2016) and Kress (2003) that for individuals to be able to read or analyze an image, they must understand the purpose and recognize the methods applied to convey a message. Through classroom discussions and responses to open-ended questions, participants agreed that all students must view the world through a critical lens and question messages conveyed and the intended purpose to become informed citizens and consumers of information.

Observations of Student Changes through Classroom Experiences

In phase one, preservice teachers were asked to select a personal photo on their phone and trade phones with the person next to them without any further instructions. Interestingly, the preservice teachers immediately began asking questions about each other’s photo and sharing details of their own photo selections. They became immersed in conversations about their photos, sharing background information and details about the images. The majority of photos selected were about families, friends, and pets. When asked why they began discussing their photos without directions to do so, they explained how they felt the need to tell their partner who was in the photo and why it was important to them. They shared their thinking that the other individual would not know the background or who was in the photo without explanation. In addition, every student agreed that the photos they selected were personal to them and had no meaning for another person, thus the need to share details to establish meaning.

After viewing the photos of segregation, a discussion was held regarding the meaning of the photos and the emotions they evoked. When asked if they were able to determine what was taking place in the photos without discussing them or having prior knowledge of what happened before or during the photo being taken, the preservice teachers all agreed that there was purpose and intent in the photos and the messages were clearly conveyed. They discussed the actions, facial expressions, clothing, and locations in the photos. They were immersed in viewing

the details in the photos and then various angles the photographer applied. Some began to comment on the photos they shared at the beginning of class and how they lacked depth or deeper meaning. One preservice teacher made the comment that her photo selection was very superficial and only meaningful to her. This prompted a deeper discussion of why and how images can be powerful tools for analysis.

In phase two, the preservice teachers began to focus in-depth on the photos of child labor, poor schools, immigration, and homelessness. They became more passionate in sharing their thoughts and feelings. One student stated, "These images are heartbreaking! How can children be expected to carry heavy containers and not be allowed to go to school." Another student shared, "I have family in Mexico and people do not understand what it is like to live there. There are no opportunities to work or have a better life. Politicians just think about money and think immigrants are trouble."

In phase three, they became very engaged in the simple, yet powerful images in the photos of hands, eyes, and personal features. A student made the comment, "Hands can be so powerful in a good way and a bad way. They can help someone or hurt someone; it depends on the individual's intent." Then another student extended on this thought, "The same is true of the mouth. Words can lift someone up or tear them down." The depth in discussion continued to deepen. The preservice teachers also spent much longer periods of time in group discussions than the discussions at the beginning of the semester. They opened up more when sharing their feelings.

In phase four the participants brought in their own photo selections. The images included photos of pollution, graffiti, orphanages, abuse, homelessness, very poor areas in other countries, human trafficking, and schools with little to no resources. Each of the images shared were powerful and showed a social justice issue in our world. They spent the entire class period viewing, discussing, and making notes of the images. The preservice teachers began to group some of the photos in themes and labeled them in broader contexts of power, voice, resiliency, commitment to learning, and exploitation of people and resources. One participant commented, "Wow! Look at the messages in each of these. I have never thought about the power of pictures and how deep they can touch you." Another shared, "I selected this photo of an orphanage because my wife and I just adopted two boys who have been in the foster care system for three years." In addition, a preservice teacher shared that she selected an image from a mission trip she took the previous summer and wanted everyone to see how few resources the schools had and the joy of the kids when they brought them finger paints and paper.

In phase five, the preservice teachers shared their photovoice projects. The themes were powerful and some caused many to shed tears. One student shared personal struggles with mental health, whereas another presented photos of her daughter who was born premature and was connected to many machines for months. Another student shared photos of her mother and her grave site after her long battle with breast cancer.

Personal Changes and Growth

The preservice teachers discussed how much they had learned about visual literacy and conveying powerful messages through images. One participant commented, "I have actually looked through many of my photos and deleted a lot that didn't really mean anything. I can't believe I actually had pictures of meals I have eaten. Some people have very little to eat and I had pictures of huge plates of food that meant nothing." All preservice teachers agreed that visual literacy was a powerful tool that should be included in the classroom and felt it was one of the best strategies for students to understand the injustices in today's society, as well as from historical perspectives.

Discussion

In the world of education, there is an abundance of pedagogical approaches to teaching and learning. Photovoice, as participatory action research, is one way to gain insight into how participants see the world and reflect upon their own realities. As preservice teachers navigate through the world of education, it is important for them to gain critical thinking skills and empower their students to do the same. As noted in the responses to the final two questions, all preservice teachers felt there was great value in implementing photovoice with their future students. They also expressed that visual literacy should be part of the instructional program at all levels.

Photovoice can encourage teachers to use their voice to speak out about the strengths and problems in their lives and community. Teachers are the best advocates for their students and implementing photovoice can empower students to discuss issues about themselves and their own communities. In this study preservice teachers were able to participate in the process of photovoice and visual literacy experiences, which provided them opportunities to develop perspectives from a student lens. As active participants they determined the importance of teaching visual literacy strategies to their future students. Additionally, allowing preservice teachers to experiment with this new methodology of participatory action research has the potential to instill and prepare their students to share meaningful insights into their personal lives, which can build stronger teacher-student relationships.

Photovoice, as participatory action research, empowers students and can often act as the catalyst for meaningful change in both their lives and the community. Freire (1973) discusses the idea of critical consciousness, where one understands and realizes the connection between their own individual condition to the various factors affecting their social and political world. An awareness of social consciousness became evident as the preservice teachers progressed in deeper discussion throughout the semester and immersed themselves in analyzing and making meaning of the many photos shared. Photovoice creates the space for students to reflect, analyze, and critically speak out in their own unique way using photographs, which is why it is important for teachers to understand and grasp the concept themselves. When teachers implement photovoice with their students, it can greatly affect the teacher-student relationship in a positive way. The participants in this study expressed the significance of allowing students to select their own photos to share their values and beliefs to support understanding of each other and build a classroom community.

Pollack's (2019) research with photovoice showed how students wanted to build a strong rapport with their teachers and peers in order to have an enjoyable time at school. As preservice teachers begin their journey through pedagogy and curriculum, it is necessary for them to gain additional strategies to relate and connect with their students using photovoice. One of the best ways to build a strong relationship is by putting yourself in the other person's shoes. Therefore, when preservice teachers practice using photovoice for themselves, it can greatly benefit their future students because they understand and value the concept of using photovoice before implementing it with their class.

The benefits of using participatory action research include a positive teacher-student relationship, empowering the participants, critical thinking, and promoting social and political action within the community. Cook, Brown, & Ballard (2016) conducted photovoice research in Costa Rica to build cross-cultural communication and sustainability practices between study abroad undergraduate students and local coffee farmers. The dialogue created a balance of power to share ideas and determine the best farming methods. This example illustrates the impact of photovoice on participants voicing their perspectives and sharing ideas together as a community.

As the semester progressed and the phases of photovoice implementation deepened, preservice teachers listened more intently to the ideas of others and more readily expressed their personal thoughts of the images and social injustices. The process opened lines of communication and supported a community environment. Introducing photovoice in the classroom allowed preservice teachers to be the guide of their own learning, constructing knowledge through personal experiences, as well as determining how to implement the process in their future teaching. The preservice teachers became aware that photovoice involves sharing the balance of power with their students and will not only build positive relationships, but also empower students to reach their full potential and better understand the world around them. Participants expressed they felt the empowerment of photovoice lies in allowing individuals to select and share topics of personal interest which are meaningful and focuses on issues in which they truly are passionate.

Conclusion

Photovoice, as a participatory action research method, has the potential to transform lives and empower those in vulnerable communities. This study aimed to introduce preservice teachers to both photovoice and visual literacy experiences in order to understand their perspectives on using this research method. Throughout the study, the preservice teachers explored a variety of photos and participated in meaningful discussions regarding visual literacy and the impact of the photograph on the eye generation. During each semester, the preservice teachers presented and analyzed their own photographs with a sense of appreciation for applying photovoice projects in their future classroom.

The participants created photovoice projects which showcased their personal lives of overcoming tragedy, their passion for teaching/education, their love for family, and promoting diversity. The preservice teachers' writing reflections and in-class presentations also highlighted the importance of implementing photovoice with their future students. The participants valued the idea of developing one's passion through engaging photographic and visual literacy experiences. Photovoice research is an empowering tool for both the individual, community, and society. It has the ability to instill educational values, visual literacy skills, and advocate for policy change. In conclusion, photovoice projects help create a ripple effect to encourage all students to speak up and believe that they can make a difference both personally, socially, and politically.

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