Art Based Research: Screen-Printing as the Artist-Teacher

Malone-Smith, Katharine

http://hdl.handle.net/2144/2689

Boston University
ART BASED RESEARCH: SCREEN-PRINTING AS THE ARTIST-TEACHER

by

KATHARINE MALONE-SMITH

Submitted in partial fulfillment of the Requirements for the degree of
MA in Art Education
Abstract

This Art Based research is indicative of the Artist-Teacher Connection. The art teacher cannot teach without first practicing art. To become a more informed art teacher, one must become a more informed artist. This study is based on the methodology and discovery an Artist-Teacher must take while learning Screen-Printing. A goal of the research is to examine the process, history and content of screen-printing and to apply that new knowledge to teaching. Methodology of the study included heuristic inquiry in the form of interviews, grounded theory as the researcher making art, data and content analysis, which entails the study of screen-printing lessons, procedures and history in electronic and data texts. The data collection methods are videography, photography, social networking and blogging. These methods are intuitive to the researcher and reflect visual culture as it relates to research methods and education. The teaching strategies the researcher learns are those are problem solving and creative thinking.
Acknowledgements

I would like to thank the Dr. Simpson as well as the other professors and staff at the Boston University Masters of Art Education program. Without this online program, I would not have the opportunity to receive a degree of this nature in the field of art education. Additionally, I want to thank my friends and family, in particular my parents who helped me with editing my papers for grammatical and spelling issues. Thank you to my fellow BU classmates as I enjoyed your friendship and support online and at Summer Studios. I owe my greatest gratitude to my husband, Clinton for supporting me through the entire program. Clinton, you sacrificed the world for me and helped me in every aspect possible. You have been an emotional and physical support as well as the voice of reason when I had none. Thank You.
Table of Contents

ABSTRACT...........................................................................................................ii
ACKNOWLEDGMENTS...........................................................................................iii
TABLE OF CONTENTS............................................................................................ iv
LIST OF TABLES.......................................................................................................vii
LIST OF FIGURES .....................................................................................................viii

CHAPTERS

1 OVERVIEW OF THE STUDY .................................................................................1
   Background of the Study .....................................................................................1
   Research Goals ....................................................................................................2
   Research Questions .............................................................................................2
   Conceptual Framework .......................................................................................3
   Theoretical Frameworks .....................................................................................3
   Significance of the Study ....................................................................................4
   Limitations of the Study ....................................................................................4
   Conclusion ............................................................................................................5
   Definition of Terms .............................................................................................5

2 REVIEW OF THE LITERATURE .........................................................................6
   Research Question ...............................................................................................6
   Conceptual Frameworks .....................................................................................6
      Experience and personal style .........................................................................6
      The Artist-Teacher ............................................................................................7
      Connection to the classroom and district ........................................................7
   Review of the Literature: Historical Applications of Screen-Printing ..............8
      Screen-printing for commercial use ................................................................8
      Toulouse-Lautrec and his poster legacy ............................................................9
      The re-birth of screen-printing in America .......................................................10
      Social issues and music culture in the 1960’s ..................................................10
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>METHODSORIES</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Design of the Study</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Methodology</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Methods of Research</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Heuristic Inquiry</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Interview</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Grounded Theory</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Researcher Making Art as Data, The Dolphin Studio</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Researcher making art as data, screen-printing independently</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Data Collection of Grounded Theory</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Content Analysis</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>ANALYSIS</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Significance of the Study</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Bias</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Validity</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Analysis of the Data</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Heuristic Theory</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Grounded Theory</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Content Analysis</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Results</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Art-Making</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Paper stencil method</td>
<td>26</td>
</tr>
</tbody>
</table>
Creating the background..........................................................26
Printing with paper stencils.......................................................27
Printing with acetate stencils ....................................................28
Screen filler method.................................................................28
Photo emulsion method............................................................29
Screen filler/drawing fluid method ..............................................31
Interviews and Contacts...........................................................32
Learning from Content Analysis...............................................35
Conclusion ................................................................................36
5. RECOMMENDATIONS................................................................37
   Personal Impact of the Study ....................................................37
   Rationale for the Unit ............................................................38
   Recommendations ..................................................................39
   Conclusion ............................................................................40
REFERENCES...............................................................................41
APPENDIXES.............................................................................45
  1. Appendix A ........................................................................45
     Unit Plan .................................................................45
  2. Appendix B ........................................................................49
     Screen-Printing Techniques ...............................................49
     Interview Answers Chart .....................................................51
     Blog Posts .....................................................................55
     Film ...........................................................................62
List of Tables

Table 3.1. Methodology ...........................................................................................................15

Table 4.1 Interview Questions ...............................................................................................24
List of Figures

Figure 3.1 Blog Screen Shot ................................................................. 20
Figure 4.1 Preparing the Screen ............................................................ 26
Figure 4.2 Printing the Background ......................................................... 27
Figure 4.3 Successful Backgrounds ......................................................... 27
Figure 4.4 Paper Stencil Problems .......................................................... 28
Figure 4.5 Acetate Stencils ................................................................. 28
Figure 4.6 Finished Four-Color Print ....................................................... 29
Figure 4.7 Drawing the Artwork ............................................................. 29
Figure 4.8 Coating the Screen ............................................................. 30
Figure 4.9 Exposing the Screen ............................................................ 30
Figure 4.10 Washed out Unsuccessfully .................................................. 30
Figure 4.11 Tracing the Artwork ........................................................... 31
Figure 4.12 Drawing Fluid ................................................................. 31
Figure 4.13 Screen Filler ................................................................. 31
Figure 4.14 Washing out the Screen ....................................................... 31
Figure 4.15 Printing ........................................................................ 31
Figure 4.16 Successful Prints .............................................................. 31
Figure 4.17 Crispina ffrench & Pat Hughes .................................................. 32
Figure 4.18 Primm ffrench .................................................................. 33
Figure 4.19 John Alhen.................................................................34
Chapter One: Overview of the Study

A screen-printing investigation that may benefit the artist and, in turn, the art educator, is the focus of this arts-based research project. This chapter serves as an introduction to the study. The arts-based study includes learning by doing. “Art in research and art as research are grounded in the notion that art making is a form of inquiry, a kind of open-ended, artist/researcher-driven learning process in which new knowledge is discovered or constructed” (Marshall & D'Adamo, 2011, p.12).

Background of the Study

Screen-printing or Serigraphy as it is sometimes known, can be traced back as far as the 18th century when it was used in Japanese woodblock prints. (Desmet & Anderson, 2002, p. 106). Additionally, there has been evidence that stenciling, an application that is an aspect of screen-printing, was used by prehistoric humans in cave paintings (Sommerfeld, Kissel, Hagerman & De Miranda, 2000). More recently, screen-printing has been made popular by artists such as Warhol and Toulouse-Lautrec whose names; lifestyles and artwork became examples of the avant-garde for their time in art history.

The classroom connection

The subject of screen-printing ties modern art, to advertising, graphic design and art history. This connection makes teaching this printing process to middle school students justifiable. The setting is in an affluent community where all 400 middle school students have art throughout the school year. The students are culturally aware and exposed to the arts in our community. Lessons involving screen-printing may engage the students in screen-printing methods of the past as well as experiencing it first hand in the
classroom. These connections may help explain the “crucial role visual arts can play in cultural critique historical inquiry and educational development” (Sullivan 2005, p. 75).

The artist connection

An arts-based study involves self-discovery and the process of making art. The interest lies in creating art with a process, in which I have little experience. I had brief and disappointing experiences at as child at a summer camp as well as an inspiring but short experience at a teachers’ conference, which put a screen-printing, flame in my creative mind, so to speak. The art making process itself is not purely a lofty procedure to learn something new, but it is focused to “engage the imagination and intellect” (Marshall & D’Adamo, 2011, p.14). The creative process of self-learning through art discoveries is linked to research which “implies that art practice is purposeful” (p.14).

Research Goals

The goals of this research are to examine screen-printing and to apply that new knowledge to my teaching. As an art educator, the art I produce should inspire, impact and influence my students as well as my teaching. My work as a teacher and my personal artwork should never be separate. To become a better Artist-Teacher, I first must strive to become a better artist. In my opinion, success arises when one’s personal work becomes one’s professional work. That is where the merge of the artist-teacher emerges.

Research Questions

Central to this study is the question, “How might my becoming more knowledgeable about screen-printing enable me to teach it to my students?” Again, the connection between artist and teacher is intertwined in this research. To become a more informed art teacher, one must become a more informed artist. Creating research from the

Conceptual Framework

Arts-based research is a qualitative method. As a result, anything collected as data may be used in this study. The researcher is “the research instrument in a qualitative study” (Maxwell, 2005, p.70). Collection of memos and data through digital documentation including the use of photography are utilized. Blogging online is the primary method of recording information.

Theoretical Frameworks

The framework of the research is centered on three major factors that ground the study. The first is the research of texts, including books, journals and articles. A history of screen-printing includes ancient, modern and current applications of printmaking. These applications, including graphic design, fine art and stenciling are referred to along with procedural research in the practice of screen-printing. Procedural research was explored online, in text and through other digital media. The second part of the research was the conducted interviews with artists and teachers who have experience with screen-printing. The interviews gave insight to how real-world applications of screen-printing are made in business, art and teaching. The final portion of research is the practice-based art research. The notion of learning by doing is the modality of learning that best suits the researcher. Trial and error, experimentation, successes and failures are all part of the research. The entire process is documented and blogged online. “This combination of theory and practice also provides a foundation for art practice-as-research in art
education, and a strong case for the legitimacy of the knowledge generated through artist means” (Marshall & D’Adamo, 2011, p.12).

**Significance of the Study**

An art-based study such as this one can provide the reader or viewer with the opportunity to exhibit how art can be and perceived and expounded upon and explained in an educational and theoretical approach. “The visual arts are a powerful cultural agency of human insight” (Sullivan, 2005, p.66). The connection of screen-printing to practical, artistic and educational aspects will be studied. The documentation of the process of screen-printing through the blog is available to not only the academic community, but to the general public, as it is online for the public to see. “Generally the goal of research is to describe, interpret, or explain phenomena, but the desire is to see inquiry as having the capacity to chance human understanding, then set our sites on a bigger picture” (p.74). Education of an art form previously undiscovered by the viewer whether it is through the digital or internet media, or in the classroom can evoke, inspire and encourage future art making and education.

**Limitations of the Study**

Limitations of this study include the physical environments, time constraints as well as the reliance of interview subjects. The researcher’s classroom is a spacious, well-organized and clean classroom in a state of the art “green” school, which is just 7 years old. However, the sinks in the art room are very small and shallow and only big enough to clean half of the 11x14 screen at a time. This is not ideal for a studio setting to produce artwork in this classroom. Additionally, the researcher’s studio while spacious, clean, and temperature-controlled, lacks running water, and is shared with the researcher’s husband.
who houses his glass studio in the majority of the space. Another limitation is the amount of time for the research itself. This study is limited to a few months at most, therefore the conclusions and validity of this research will not be examined until the students take part in screen-printing as an art elective in late Spring 2012, and will be an ongoing continuation related to this study. The interview portion of the research is reliant on the subjects returning the completed questions via email, phone or face to face. Out of the six subjects who are surveyed, there is a possibility that not all will respond, and research may not be as thorough as hoped.

**Conclusion**

The literature supporting the study will be examined in Chapter Two. The chapter will explore the history and current application of screen-printing along with procedural aspects of the art.

**Definition of Terms**

Arts-Based Research: Art-based research can be defined as the systematic use of the artistic process, the actual making of artistic expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies. (McNiff, 2009, p. 29).

Screen-Printing: Method of printing by using a squeegee to force ink through an assembly of mesh fabric and a stencil. (http://www.printindustry.com).

Serigraphy: the employment of the silk screen process as a fine art (Landon, 1964, p.18).
Chapter Two: Review of the Literature

Research Question

This study is about how I can learn screen-printing and how to incorporate it into my teaching so that it may benefit my students’ art education. The conceptual framework will be explored further in this chapter. The background history of screen-printing and serigraphy and other modern applications will be discussed. The conclusion will discuss how historic applications of screen-printing may relate to current screen-printing techniques and how they relate to art education.

Conceptual Frameworks

Experiences, goals and methods make up the conceptual framework for this study. The methodology will be explained in Chapter 3.

Experience and Personal Style

The researcher’s past experiences include brief encounters with screen-printing. Using “your own experiential knowledge as” as well as your own “existing theory and research” (Maxwell, 2005, p. 37) cannot be ignored. Background experiences and onions help personalize the study as well as bring passion into it. Maxwell states, “Separating your research from other aspects of your life cuts you off from a major source of insights, hypotheses, and validity checks” (p.38). Furthermore, “recognizing your personal ties to the study you want to conduct can provide you with a valuable source of insight, theory, and data about the phenomena you are studying” (p.19). Screen-printing experience of the researcher’s past as noted in Chapter 1 help drive the desire for this study. The researcher is passionate about learning screen-printing for her artistic satisfaction as well as the benefit of her students. The relatively quick turn-around of screen-printing is to the
researcher’s art-making style. The researcher who is a photographer is drawn to fast art forms with immediate results. This reflects her busy lifestyle and varied ongoing interests and careers.

**The Artist-Teacher**

Although I am passionate to learn screen-printing to benefit my own art, I must be able to connect it to my teaching to become a more successful artist-teacher. My work as an artist and my work as a teacher are very much connected to each other. One can benefit the other, thus creating a successful partnership that compliments each other.

“Artist-teachers are not just artists who teach; their artistic thinking process is imbedded within various elements of the teaching process” (Daichendt, 2010, p.10). Daichendt notes one of the philosophies of an artist-teacher in that, “Artist-teachers are artists first” (p.147). This reiterates the simple fact that I will be learning screen-printing first, before I teach it in my classroom but also notes that being the artist first, makes it possible to impart the love I have for the expression of art. Daichendt continues, “classrooms should be modeled on the practices of artists and designers” (p.147). These statements may seem obvious to some but art educators may often forget these practices and thus fail to work on their own artistic development.

**Connection to the classroom and district**

The researcher has learned the art of screen-printing before it is introduced into the classroom. Qualitative research should “question the process by which events and activities and their outcomes occurred” (Maxwell, p.75). The researcher’s School District is supportive of the arts and technology. Good teaching and learning are in the forefront of the District’s goals. The first bullet in the district’s mission statement agrees with the
researcher’s own philosophy of what art education should look like. It reads, “Students and teachers are engaged in activities that have substance (complex knowledge, intellectual and artistic skills and ideas)” (bhrsd.org, 2010). The experience of students learning the skill, art history and learning by doing in printmaking is in line with the District’s goals. The relevancy to the researcher’s student population is that students are living in a digitized world and respond to advertisements, media and in turn graphic design. Historically, screen-printing has been influenced by graphic design affording the opportunity for the teacher to teach on a level consistent with the students’ environment.

The printmaking unit can help explain the “crucial role visual arts can play in cultural critique, historical inquiry and educational development” (Sullivan 2005, p. 75). The connection joining teaching screen-printing and teaching the history of screen-print artists and movements is a natural relationship.

**Review of the Literature: Historical Applications of Screen-Printing**

To explore the historical applications in screen-printing is important as one can learn so much from history and apply it to current applications of the art. As the saying goes, history often repeats itself and art is no exception. Printmaking in general has been around as long as mankind. For example, a hand-print is a form of printmaking.

“Primitive cultures typically used stencils made from common perishable materials such as leaves or animal skins” (Stromquist, 2004. p.8).

**Screen-printing for commercial use**

Printmaking has often been associated with commercial use in posters, advertisements and political movements throughout history.
As a reproduction technique, it has many wonderful qualities. It requires very little equipment and even can be made easily by hand. It is easy to teach and learn and it’s very well suited to very short runs of large format objects. It seems like an obvious choice when looking for ways to create prints for the public (Cushing, 2009).

Stenciling was “used extensively for artistic and commercial purposes in China and Japan as early as A.D. 500” (Stromquist, 2005, p. 7). In fact the Japanese may have invented screen-printing. “Artists made large, delicate paper cuttings in which the elements were joined and held together by human hair. The hairs served as stencil ties without interfering with the printmaking process” (Beedenbender, 2003, p.7).

**Toulouse-Lautrec and his poster legacy.**

French born Henri Toulouse-Lautrec (1864-1901) created more than 325 prints and posters in the fifteen years he was an artist (Burleigh, 2005, p.12). Toulouse-Lautrec was at the forefront of the poster art movement of Paris in the late 1800’s. One of the most famous posters was created to advertise the Moulin Rouge, called *Moulin Rouge, La Goulue* and was almost six feet high (pp.15-16) and took multiple printings due to its size and colors to produce. A collector of Japanese prints, many of Toulouse-Lautrec’s posters included the bold, flat colors similar to the Japanese prints he admired (Iskin, 2009). This poster in particular “helped Lautrec’s reputation as an avant-garde artist noted for original posters and modern portrayals of Parisian life” (Iskin, 2009).
The re-birth of screen-printing in America.

Screen-printing was “re-discovered” by American artists “during the mid-1930’s under the Federal Arts Project of the Works Progress Administration (FAP/WPA)” (Cushing, 2009). This was a program that provided funding for starving artists of the time. A screen-printing division was created in 1939 to “promote public interest in this new medium” for schools, hospitals, wildlife services and other sectors of American government (Cushing, 2009). While the program brought forth exposure to the artists, many still had a difficult time selling their works in exhibitions outside of the funded FAP/WPA. Anthony Velonis was one of these artists who created posters and artwork for public view. “Anthony Velonis and his disciples can make up to 50,000 copies from most stencils, and undersell mechanical color printing on runs of 2,000 or less. One problem they have not yet solved: how to market their product” (Time Magazine, 1940). Furthermore, “The commercial advantage of silk-screen prints is that they can be sold as original work” (Time Magazine, 1940). A screen-print at this time could be purchased between $4 and $20 each and was considered original art. It seems like making the transition from screen-print FAP/WPA artist to fine art serigraphy artist was often a challenging process in post-war America.

Social issues and music culture in the 1960’s.

The 1960’s led the way to social change in America. “Anti-war, anti-imperialist, labor, and woman’s rights” (Cushing, 2009) were among the few current topics that silk-screened posters were produced for. Many of these posters were produced at colleges known for activism of the time including Harvard, Berkeley and San Francisco State College. Also in the 1960’s posters in California were making their way onto street
corners promoting “dance concerts” (Lemke & Graham, 1999, p.8). These posters were for a venue called the Fillmore, which featured band such as The Doors, Jimi Hendrix, and Jefferson Airplane. The imagery was often bold, bright and psychedelic in nature. Lettering was often “compact, shaped into abstract forms, or undulating, stretched or warped” (p.18). The lettering featuring band names along with illustrative drawing was the importance of these posters. Most of the posters of these times that were created by Fillmore had the distinct look of the time, despite the fact that there were over a dozen of core artists who produced the posters. “Among the unique qualities of these posters is the drawing technique, which had almost disappeared from commercial art. The San Francisco dance-concert posters turned that around and inspired a graphic arts movement that has expanded into the era of keyboard and mouse “(p.17).

**Serigraphy**

Serigraphy is the fine art aspect of screen-printing. The term was used “first in 1938 to produce limited editions of creative color prints under the administration of the Federal Arts Project” (Landon, 1964, p.18). Books and manuals as early as the 1940’s including, *Silk Screen Stenciling as a Fine Art* introduced the serious artist to Serigraphy. Books such as this one provided the reader with procedural information about stenciling, and new techniques as well as the history of silk-screening (Koch, 1943, p.36). Serigraphy made its distinction from silk-screening. The artists who produced serigraphic prints believed their prints were of a higher quality and were considered fine art rather than posters for promotion.

**Warhol.**

Warhol’s legacy of screen-prints made him a household name in his time. The
majority of his artwork included silk-screen prints or serigraphs. Warhol likened his studio to more of a factory, as it was coined, *The Factory*. Warhol used assistants to quickly produce the prints as the emphasis was on reproduction. “The use of silk screen permits his assistants to turn out an original Andy Warhol as easily as Warhol himself” (Bergin, 1967, p. 360). His soup can series and celebrity portraits series are prominent examples of the products his machine-like factory made.

The process complimented his artistic philosophy and was perfect for reproducing multiples and repeated imagery. The medium was a way to create fine art with mass production techniques, central to his concept of Pop Art as a reflection of modern society and popular culture. (Stromquist, 2005, p. 51).

**Modern Times, Where Screen-Printing & Serigraphy Merge**

In modern art culture, anything goes. Artists can take inspiration and techniques from processes and movements they like or feel a link to and ignore the rest. The line has been blurred between screen-printing and serigraphy. Proof of this is evident in the work of Shepard Fairey who is known for his interest in propagandized of posters and his bold graphing printing technique that emulated former Soviet Union propaganda. He is also known for his raw street art stenciling. His most notable poster was the one for President Obama’s campaign entitled *Hope*. His artwork has been used in the commercial world as well as in fine art galleries around the world. However, his art has come under criticism from time to time. “Mr. Fairey has drawn scorn from underground artists who think the work is too marketable and critics who say it’s too watered-down” (Schumann, 2009).
Conclusion

The review of the literature to introduce the reader to the Conceptual Frameworks serves as the backbone of the study. The Frameworks serve as the researcher’s philosophies of art education while addressing the needs of the goals of the artist-teacher as it connects to the students in the school district. The background history of screen-printing was provided so the researcher, reader as well as the researcher’s students may find an understanding of the importance of screen-printing and the range of styles and techniques screen-printing artists have produced through the years. Learning about screen-printing in the context of culture and time can provide inspiration and interpretation to the viewer and the artist. Chapter 3 will explain the procedural research and methodology to the study.
Chapter 3: Methodologies

The methodologies of the screen-printing arts-based research will be discussed in this third chapter. The researcher will explain her art-making project in detail. In addition, the methods for research, sources of data, reasons for the methods will be revealed. An arts-based study such as this one “is an approach to research that exploits the capacities of expressive form to capture qualities of life that impact what we know and how we live” (Barone & Eisner, p.5). This deeper level of understanding art can educate the reader as well as the researcher.

Design of the Study

The researcher’s primary goal was to learn screen-printing successfully in order to teach it to her students. This study is not just about teaching the art form to students; it is about the journey the researcher needed take to first learn a new art form that may be beneficial to her students. “The perspective of the researcher/teacher affords the potential for rich description and useful insight into the experience of teaching” (Wong, 1995, p.28). The old saying, “those who cannot do, teach” is not necessarily true. So to speak, a teacher must be well prepared which includes knowing educational material and processes before she can teach. Many great artists ‘who can do’, may not be able to teach for a variety of reasons; lack of patience, lack of interest in teaching or children or possibly a lack of communication skills to mention a few. An artist-teacher is a rare blend of artist and teacher. As art educators “our knowledge about art must be solid” (Simpson, 1998, p.18). As the researcher put herself in the shoes of a student, she may have gained some insight as to the successes and failures and processes of learning a new art form. “The main research interest is to investigate how knowledge is created in the process of
making art. Research in the visual arts therefore asks questions about the processes and products of artistic knowing” (Sullivan, 2005, p.79).

Table 3.1

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Sources of Data</th>
<th>Data Collection</th>
<th>Time Frame for Collection</th>
<th>Data Collecting Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heuristic Inquiry: Structured Interviews with Protocol Questions. Some answers may be presented in narrative inquiry if interviewed the subject chooses to answer in this way.</td>
<td>Teachers and Artists with screen-printing experience</td>
<td>Interview Questions sent via email as well as in person.</td>
<td>Sept.24, 2011-Oct.24, 2011</td>
<td>Via email, phone and at the at home of some interviewees.</td>
</tr>
<tr>
<td>Grounded Theory: Researcher making art as data</td>
<td>Researcher will learn screen-printing. Researcher will spend a day assisting in a screen-printing studio.</td>
<td>Blogging-Art as data includes notes, photography &amp; videography</td>
<td>Sept.23, 2011-Nov. 6, 2011</td>
<td>In Classroom, researcher’s home &amp; studio, The Dolphin Studios</td>
</tr>
<tr>
<td>Content Analysis: Screen-printing lessons and lessons based on historical artists noted in Chap.2</td>
<td>BU online libraries, Books, online articles, trade magazine and journals</td>
<td>BU online libraries, books, online articles, trade magazine and journals</td>
<td>Oct.1, 2011-Nov.6th, 2011</td>
<td>From researcher’s home studio and classroom.</td>
</tr>
</tbody>
</table>
Methods of Research

The researcher used three main perspectives for data collection. Heuristic Inquiry, Grounded Theory and Content Analysis were included in the methods of the study. The study is qualitative by nature and the use of various methods is preferable as “the components work harmoniously together, promoting efficient and successful functioning” (Maxwell, 2005, p.2).

Heuristic Inquiry

“In its purest form, heuristics is a passionate and discerning personal involvement in problem solving, an effort to know the essence of some aspect of life through the internal pathways of the self” (Douglass & Moustakas, 1985, p. 39). In the heuristic approach the researcher interviewed artists and teachers who gave insight and information about screen-printing, teaching and life as an artist. It is a research of human experience and in this case, the study of others who have knowledge that the researcher may not have been previously exposed to.

Interview.

The researcher had hand selected seven subjects to interview. The researcher knows the seven personally and this is important to this study to strengthen connections and to preserve heuristic qualities in the research. Three of the six subjects have a history of working at the same screen-printing studio and by interviewing all, thus, triangulation may be realized. “This strategy reduces the risk of chance associations and of systematic biases due to a specific method, and allows a better assessment of the generality of the explanations that one develops” (Maxwell, 2005, p.112). The questions will be a set protocol to sustain validity and limit variables. Interviews were conducted in various
means including email, telephone conversations and on site, in-person encounters. The in-person and telephone interviews were conducted with a tape recorder as well as a notebook so the researcher could write additional memos that may have come up in the conversations of the interview. Questions were e-mailed early in the study to ensure adequate time for response. Questions were open-ended and answers may have a narrative quality. Questions were limited to eight, so the subjects who are busy teachers and artists will not feel overwhelmed with the amount of time this could take out of their day. The results of the interviews as well as the connections to the study formed during the time that the researcher was learning the art. The interview questions may have given insight to the study. The “open-ended, inductive approach (may help the researcher) to discover what these meanings and influences are and how they are involved” (p. 75) in this study (Interview questions and answers are located in Appendix A).

Grounded Theory

Grounded theory refers to the “constant interaction with the data from (the) study. This theory is ‘grounded’ in the actual data collected” (Maxwell, 2005, pp.42-43). The fieldwork is the data used in the study. In art-based research, the art making is the grounded theory. In grounded theory, “the main research interest is to investigate how knowledge is created in the process of making art” (Sullivan, 2005, p.79). For this study, data is taken from the process of making screen-prints.
Researcher making art as data, the Dolphin Studios.

The researcher spent one day assisting at The Dolphin Studio housed at Alchemy Initiative in Pittsfield, MA. This was the researcher’s first encounter with the actual art making for this study. By assisting for the day, the researcher was able to get a hands-on approach to screen-printing while learning from a master artist. This is similar on a much smaller scale to the apprentice model where masters of craft guilds would bring on young teens that would learn the craft for half a decade before becoming a master craftsman himself (Efland, 1990, p.23). The researcher proceeded to produce art on her own after the assistantship.

Researcher making art as data, screen-printing independently.

Based on the assistantship, the researcher had learned knowledge from the experience to get her started independently. The screen-printing project entailed producing multiple color prints. The researcher initially used the paper stencil method, as it is the most widely accessible technique for students and beginners. A list of supplies needed is located in Appendix B. The finished print will be a three or four-color print made with various printings and paper stencils. More colors may emerge, as color mixing will occur due to the multiple printings. Printmaking took place in the researcher’s home studio as well as her classroom. Details of the home-studio and classroom including limitations were noted in Chapter 1.

Data Collection of Grounded Research.

Memos are one way of coding information that takes place in the data collection. The term memo “refers to any writing that a researcher does in relationship to the research” (Maxwell, 2005, p.12). Memos were taken as the researcher worked, allowing
reactions, thoughts, ideas and opinions to flow freely. In addition to the memos, photographs and videography were included in the processes. In photographing and filming myself in video, I then analyzed the photos and video and reflected, learned and ventured forward to the next step. Relearning, revising and go back over my work was also necessary. The photos and videos served as self-reflection.

By its very nature, artistic self-expression taps into and reveals aspects of the self and puts us in closer touch with how we really feel and look and act which leads potentially to a deepening of the self-study. Yet, paradoxically such acts as self-photographs, drawings of or by the researcher and putting oneself into a role for autobiographic performance also forces us to take a step back and look at ourselves from the new perspective provided by the medium itself, increasing the potential for a deeper self-analysis (Webber & Mitchell, 2004, Ch.10).

Photographs were edited in post-production software, uploaded to flickr.com and blogged on the site immediately so the data was organized in close to real time as possible. Memos were also blogged so that all data will be in one location. Video footage was viewed and analyzed although not edited until the end of the study when it was able to be assemble it all together into an edited video. “Film, video, and various forms of digital and electronic imagery are, relatively speaking, new means through which research can be reported” (Barone & Eisner, 2012, p. 5). The researcher is a natural visual documenter. She is always photographing, filming and blogging. Notes in a notebook and sketches in a sketchbook are not intuitive for the researcher. The researcher is very comfortable with digital documentation as a method however. The digital documentation approach is somewhat new in the field in arts-based research and the researcher is eager
to make use out if it. “The availability of new media makes possible the generation of new concepts and the creation of new possibilities” (p.5).

Fig. 3.1

Content Analysis

Content analysis is the study of the research and examination of subject matter. It is the “systematic, objective, quantitative analysis of message characteristics” (Neuendorf, 2002. p.1). The researcher used content analysis to obtain an understanding of screen-printing in terms of the process and possible ways to teach the art as it relates to art history and current applications. Scholarly literature, electronic and digital media and artwork were examined for content analysis. Sources including DVD’s, on-line videos, procedural books and lesson plans were used to examine content as it relates to the study. Lessons plans that were included as content analysis were those that are centered on screen-printing and artists who used screen printing in their art. Lessons relating to artists
Andy Warhol and Toulouse-Lautrec among others were be reviewed to inspire the researcher to look into art history for connections to screen-printing. Based on this research, original lessons plans may be developed for practice in the classroom after the study of this research. The content analysis of the source material may be able to help the researcher in terms of the grounded research. Both research methodologies may need to work harmoniously for the study to be successful. Qualitative research design is most often non-linear promoting “an ongoing process that involves ‘tacking’ back and forth between the different components of the design” (Maxwell, 2005, p.3). Essentially, the researcher will be looking for two main conclusions in the content analysis.

1. How will this information help me to learn screen-printing?
2. How will this information help me to create unit and lessons plans based in screen-printing?

**Conclusion**

Success of the data collection is anticipated if all three methodologies are utilized the analysis of the data will be explained in Chapter 4.
Chapter 4: Analysis of the Research

This chapter will describe the results of the researcher’s study in learning screen-printing for the benefit of her students. The research is based primarily in the arts-based study of screen-printing, analyzing content for results in support of the research and documenting and reflecting in a way that the researcher can find intuitive.

Significance of the Study

The importance of this study is proved initially through validity in the evidence of the research. Validity in arts-based research can be difficult to judge since “There is no one set of criteria for judging the artistic quality of a work of arts-based research” (Rolling, 2010, p. 105). “For some, the beauty of a work of art is in the aesthetics of its forms and the mastery of its techniques; for others, it is in the authenticity and expressiveness of voice; and for still others, in the incisiveness of its social critique” (p.105). Conducting arts-based research in screen-printing has helped the researcher as an artist as well as a teacher. The Artist-Teacher connection is imperative to developing the researcher’s understanding of the arts-based study. ”The production of art works is central to understanding the profession of teaching art” (Daichendt, 2011, p.147). This study has also allowed the researcher to reflect and to gain insight into how her students may feel when they are approaching a new art form for the first time. The variety of the research including art making, interviews and content analysis reiterates significant support to the researcher and connections within this study. Problem solving within the art-based research contributed to the on-going learning and self-realization of the artist and how it is use it as a start to learning the art, but not an end all to learning screen-printing process.
Bias

Bias in arts-based research includes “the explicit incorporation of (the researcher’s) identity and experience in (the) research has gained wide theoretical and philosophical support” (Maxwell, 2005, p.37). Art is a personal expression; therefore an arts-based study is seeped in personal values, experiences, opinions and influences. In the case of this study, the researcher’s biases are visible as they are included as evidence. This is acceptable as in qualitative research any information whether it is prior knowledge or learned through the study may be used.

Validity

Validity in this study included a number of examples. To preserve validity in the interviews, the researcher set up a protocol of questions, which each interviewee was presented. Through the use of a protocol, continuity was ensured across the population. However, not every question was applicable to every interviewee. By having this set of protocol questions, the researcher was able to compare and contrast the results for further understanding. Validity in the art making aspect of the research is a more difficult to judge as art is subjective. For the researcher, the true test will reveal itself after the study and research is over when she will be teaching screen-printing to her students as part of an arts elective class in the spring of 2012. Rolling (2010), agrees that validity may need to span a lengthier time to prove creditability. “As a criterion for trustworthiness, iterative validity in arts-based research might invoke the self-similarity of variations on a concept over time” (p. 110).
Analysis of the Data

As discussed in Chapter 3, the methodologies of the study included Heuristic Inquiry in the form of interviews, Grounded Theory that included the art-making portion of the study and Content Analysis that included study of text and digital resources. The variety of methodologies was non-linear, with data influencing other parts of the research.

Heuristic Theory

The interviews in this study were conducted via email and Facebook conversations as well as in person. Interview answers were organized into a chart so the researcher could map out the similarities and correlations between the subjects. In addition, the in person interviews included photographs and video footage. The interview questions that the researcher chose were selected as these were the types of questions that interested the researcher rather than ones that may have steered the study in one way or another. “Contrived questions are designed to elicit particular sorts of data” (Maxwell, 2005, p.93). Interview questions were designed to provoke open and valid responses.

Table 4.1

Interview questions:

1. What family and early influences have you had as an artist? (Your parents, relatives, a special teacher?)
2. When did you first get interested in art?
3. What was your professional training in art?
4. Where and what was your first art teaching position?
5. What art form is your specialty?
6. Where/How/When did you learn screen-printing?
7. How have you taught screen-printing (where, when, and in what techniques and ways)?
8. What advice do you have for me as far as teaching screen-printing to middle school students?
Grounded Theory

The art-making portion of the research was a significant part of the study as it is the foundation and the core for the study as it relates to the Artist-Teacher connection. “The experience of the artist is the core element in the creation of new knowledge and the potential for new understanding is further enhanced through research projects” (Sullivan, 2005, p.191). Again, digital data in the forms of photographs and video was collected, analyzed and blogged online for feedback and reflection.

Content Analysis

Texts, online journal articles and DVD and online videos were examined for content as it relates curriculum ideas, technical help in screen-printing, and history of screen-printing to gain more understanding. Content analysis required the researcher to make conclusions based on the information she had researched. “A content analysis summarizes rather than reports all the details” (Neuendorf, 2002, p.15) Furthermore, “Content analysis summarizes characteristics of messages” (p.16). While the researcher collected the data from various sources, she used the findings to help her in other aspects of the research.

Results

Art-Making

The art-making portion of the research was of central importance to the study. “The artwork carries its own status as a form of knowledge. Research of art subsequently communicates new insights into how objects carry meaning about ideas, themes and
issues” (Sullivan, 2005, p.80). Through this discovery of screen-printing, the researcher found art through problem solving and perseverance. The researcher expected to be able to do this with ease and work from the Speedball Screen-Printing Deluxe Kit solely. The plan was to employ the easiest method to learn screen-printing and then in turn, teach it to students. However, the research did not go as expected. The art making took place over two months instead of a few weeks. It took several methods of screen-printing techniques with much trial and error.

**Fig. 4.1**

**Paper Stencil Method.**

“The paper stencil method is best for a beginner. The stencil method is the easiest to clean up. Simply throw away the stencil and wash the screen” (Speedball DVD, 2007). To the researcher, these statements led her to believe that this would be the only method that would be researched as it sounded easy for the researcher to learn and teach to her students.

Creating the Background.

The researcher created a set of 4-color paper stencils including a plain yellow background. In the next three weeks, she went through an entire jar of yellow ink trying to get an acceptable background. Instead she was met with messy borders and extra ink in
An attempt to isolate variables by using more or less ink was experimented with. Pieces of chipboard were attached between the frame and the paper in an attempt to raise the paper more closely to the screen and fix problems with contact. The researcher tried varying pressure and angles with the squeegee along with many types of different paper samples. All led to failures but after three trying weeks, two of the researcher’s contacts suggested using a different screen. An old screen found in the researcher’s classroom replaced the new screen from the Speedball kit. The design was simplified and scaled down in an attempt to improve chances of success. As a result of using the second screen, the researcher was finally able to print the yellow backgrounds on paper successfully. At this point, the researcher had abandoned the idea of staying after school late to print in her classroom, since by the time she finished up every night, it was too late when considering a long commute home. Thereafter, she brought her entire set of supplies home and would only print late at night after dinner.

Printing with Paper Stencils.
The three stencils were simplified and printed out on copy paper and cut with an x-acto knife. The first attempt of printing with these stencils was met with failure. The ink seeped through the paper right away, including over and under the stencil and everywhere else where it ink should not have been. This experience indicated that any successes with
paper stencils would need to be very simple with little detail, if any and the paper would need to be very thick. Even then, the print run would need to be minimal at most.

**Printing with Acetate Stencils.**

Similar to the paper stencils, the acetate was too thin and curled on itself. Ink leaked under the stencils and the details were too fine to get a clean print. The researcher abandoned this method right after the 2nd print as she could see that this was not a productive use of time and resources to continue any further.

**Fig. 4.4**

**Screen Filler Method.**

The researcher had abandoned the stencil method all together and since spending over a month on unsuccessful methods she needed to switch gears entirely and quickly. The good yellow backgrounds were printed, so she decided to use the same design for the artwork. She used an old set of paper stencils that were never inked, and used them as drawing guidelines. She drew directly on the screen with a pencil and painted it all in with screen filler. Following the directions on the Speedball DVD and videos online, the researcher painted it on very thick to avoid pinholes where the ink could seep through. Screen filler acts like a resist, so wherever the researcher didn’t want ink, she would paint it in with screen filler. This method worked but the registration was off. The yellow
background and the first layer of color didn’t line up. Perhaps this was because the screen filler was hand painted on. The screen filler liquid is extremely difficult to remove and the researcher spent a longer time scrubbing over the sink removing it than it took to actually print. The next two colors printed well but registration was still off on all of them. The researcher learned to not put so much thick screen filler on as it makes it more difficult to remove. In the end, only one print out of twenty that was almost perfect as far as the four colors being registered. In addition, the art ended up looking like it would be appropriate for a real estate agent rather than the bathhouses on the Isle of Wight as it was originally intended to be.

**Photo Emulsion Method.**

This was a method the researcher didn’t intend to try but she was still so dissatisfied and frustrated with the lack of progress she felt like she needed some success if she was going to be able to teach screen-printing effectively to her students. The researcher thus prepared by watching the Speedball DVD, reading books and watching videos online. As this method is more complicated requiring multiple steps than any of the other methods, the researcher started slowly and carefully. She realized shortly that she wasn’t going to be able to print out any artwork onto transparency film. The researcher did try one but the printer ink smeared everywhere due to the inkjet printer in the researcher’s home office. The other way to make
a transparency was to draw or paint directly on the acetate. The researcher brought home some black markers and India ink and ended up using Sharpie markers to draw the artwork directly on the acetate. In the end, the artwork wasn’t opaque, so the acetate was flipped over and retraced on the back creating an opaque transparency. The directions were followed which included mixing the solutions, coating the screen and exposing the screen accurately and precisely. After exposing, the researcher washed out the screen only to find out that very little had washed out. There was an exposure problem with the screen. The image is supposed to wash out leaving only the background blocked so the ink will print through the image, and not the background. Another try followed as a new screen was recoated, exposed and washed out. This time instead of washing out just the image, everything washed out including the background. The researcher looked online and talked to her contacts and learned that often times a test strip can be made to get the right exposure. She also learned that a stronger bulb should be used, rather than the 150-watt bulb that was being used.
Screen Filler/Drawing Fluid Method.

The researcher decided to try one last method based on her minor success that she had with the screen filler. The artwork used was the same as in the photo emulsion method. The design was then traced onto the screen with pencil. Then using very thin paintbrushes, drawing fluid was painted onto the part of the artwork that needed to be printed. Next, screen filler was squeegeed across the screen to block out what wasn’t to be printed. Under a spray of cold water the drawing fluid rinsed out revealing a clear image of what was needed to print. It was successful. The researcher was able to print with success. Based on this method, the researcher should be able to teach screen-printing as long as simple line drawings are used in addition to using only one color.

Figs. 4.11-4.16
Interviews and Contacts

At the start of my research one in-person interview was lined up and four others were emailed with the interview questions. Just as few things went as planned in the art making, little went as planned in the interviews as well. Some of those who were sent the email to never responded to the questions. Then there were other contacts that were emailed the questions to along the way as research progressed. One contact, Crispina ffrench didn’t answer the questionnaire but was instrumental in helping the researcher along the way. She assisted the researcher in figuring out technical problems and gave encouragement. She also set the researcher up with a name and number of another printer who the researcher was able to conduct an additional in-person interview. In addition, she arranged her schedule so that the researcher could spend the day at her studio assisting in the production of silk-screened calendar pages at The Dolphin Studio along side of printer Pat Hughes. The Dolphin Studio produces over 2,100 calendars every year which all sell out. There are 12 pages to print plus the cover and each page is printing using two custom mixed colors. The screens are made using two techniques, photo emulsion and screen-printing film. The researcher would end up meeting with Crispina in person three times over the course of the research, and a dozen times in messages through Facebook. Additionally, she donated some screen-printing supplies to
the researcher’s art room. The two people who were interviewed in person proved to be a wonderful wealth of knowledge and support. In both instances, the interviews were conducted for several hours and they were both able to help the researcher understand their experiences with silk-screening as well as advice on how one can go about teaching it to students. Primm ffrench who is Crispina’s mother and Pat’s mother-in law spent time reflecting on teaching screen-printing when she was a high school art teacher along side her fellow art teacher and husband John ffrench. She also recalled the origins of The Dolphin Studio, which has produced screen-printing calendars for over five decades. The first calendar was produced in the late 1960’s for gifts of Primm and John’s friends. Each month of the first calendar was produced in a different way, for example collage for one month, watercolor for another and screen-printing for the next. After finishing the dozen or so calendars that year, Primm and John agreed that next year’s calendar would be entirely screen-printed since that technique was the fastest for reproduction. Over the years, Primm and John’s children and eventually grandchildren would all design a page for the yearly calendar. Screen-printer John Ahlen was the second in-person interview that was very generous with his time and advice. John created what he called “Brilliant Forgeries” (Ahlen, November 2, 2011, personal communication) for famous artists. He created high-end reproductions for artists, galleries and museums. John also printed original works, which he sold over the last four decades. John advised that the researcher should not use a printing kit, as it can be an uphill battle to get a decent print. “The people who do it and are successful do it
with the right tools. If you go into an art supply store and buy a Speedball kit, most of the time you are doomed” (Ahlen, November 2, 2011, personal communication). Both Primm and John agreed that there is no one good book available to teach the entire process of screen-printing. Primm and John ffrench have learned by trial and error since no books contained all of the information they needed. Primm has written files of notes over the years, which contain all of her technical information on screen-printing.

The books don’t tell you really how to do things; they just kind of baffle you. The best way to learn is to watch it done and ask questions. Also remember you are never going to get it right every time. It’s not genius; it’s ingenuity (Ahlen, November 2, 2011, personal communication).

Additional email/Facebook interviewees were also helpful and encouraging. By blogging screen-printing and research experiences and then posting the link on Facebook, several other Facebook contacts gave advice and had asked to be interviewed as well. In the end, the researcher ended up interviewing two contacts in person, three email/Facebook interviews, four additional contacts who did not return interview questions but were generous with their time and advice in other ways, and one contact who never returned any information or advice. The researcher wanted to make sure that everyone of her contacts/interviewees she personally knew because this research is personal, as her art and teaching. The researcher was persistent in forming this group of contacts and interviewees as she frequently requested information and advice from them. The
interesting part concerning the interviews and advice offered is that a lot of it was conflicting. There were some people suggesting to do photo emulsion with the students and some telling the only way is with the screen filler/drawing fluid method. While all advice was considered, the researcher also had to think about what would be right for her and her students. Trying out the various techniques of screen-printing, although many of them led to failure proved to be an invaluable learning experience as it put the researcher in the seat of a student. Results of the interview questions can be seen in Appendix B.

**Learning from Content Analysis**

When studying from books and videos both on DVD and online, the researcher was looking for procedural directions on the techniques, how silk-screen can be used and what others have done as far as teaching it to students. Little was found as far as lesson plans although some plans were found based on Andy Warhol and Toulouse-Lautrec which could be adjusted for students’ needs. Information found that related to the research in the history of screen-printing was informative from a technical view but was often incomplete in content. Not one overall source or book to help the study throughout was found. The researcher found herself bouncing between the Speedball DVD, YouTube and Vimeo videos for the most part. Websites and electronic media seemed to have more complete information than the books the researcher had. Most of the information found in the books had very vague information that wasn’t specific enough for the researcher’s needs. An informational blog that helped the researcher understand the screen filler/drawing fluid method was [http://dakini.ca/silk-screening-tutorial.html](http://dakini.ca/silk-screening-tutorial.html). This was especially useful as it contained photographs in conjunction with procedural directions. Another helpful blog has been [http://natescreenprints.blogspot.com/](http://natescreenprints.blogspot.com/), which
contained videos and tutorials. Websites such as http://www.squeegeeville.com/ contained online articles were helpful as far as the technical information that can be so difficult to understand in the photo emulsion method.

**Conclusion**

This study turned out to become very personal and it involved unexpected results that were not anticipated. Art in itself is a personal expression, so it should be no surprise that the researcher became so invested in the entire process. However, none of the results were planned in the way the researcher had anticipated. She had hoped to work through the research quickly and efficiently, although sometimes that is not a realistic expectation with art. Chapter 5 will focus on the conclusion to the entire study.
Chapter 5: Recommendations

Chapter five will focus on the conclusions of the research questions and whether the goals of the study were met. A further explanation of the research as it relates to teaching and examination of the unit will follow. Finally, recommendations of how one may approach their own study of screen-printing will be given.

Personal Impact of the Study

The researcher had to find solutions and answers to the research questions. The overarching goal of this study was to learn screen-printing so it could be applied effectively to teaching. Doing this would help the researcher as an Artist-Teacher. To become a more informed art teacher, one must become a more informed artist. The goals of this study were met, and through much trial and error to successful prints were produced and the techniques and strategies to create them was learned. When trying something new such as an art form, learning curves are often part of the necessary challenges to find a way or solution. Even when the goals of successful prints were met, satisfaction did not reveal itself until after the researcher was able to reflect on it in by creating a film about her experiences. “A complex process or extended project develops discipline and the ability to delay gratification because making something artful takes time, thought, intuition, and effort” (Carroll, 1998, p. 102). Unexpected issues may arise that force the learner into a series of problem solving and creative thinking. This places the researcher in the role of the student who is presented with the sometimes-overwhelming task of trying a new art form for the first time. As difficult and intimidating as it may seem, this empathetic realization of what a student may experience
in trying something new is imperative to the teacher for understanding the growth of a student artist.

**Rationale for the Unit**

“Teachers must think about all of the possibilities in, all of the ramifications of, all the pitfalls in making decisions about planning” (Simpson, 1998, p. 337) a new lesson or unit. After completing the research, it became clear what the unit would include and what could be omitted immediately. The extensive trial and error process that the researcher experienced would most probably prove to be too frustrating and difficult for most students. The unit involves the screen filler/drawing method technique, as it is the one technique found to incorporate a manageable amount of challenge mixed in with a high rate of success, granted that all the steps were followed correctly. The students will be creating line designs and working with positive and negative space which will give them focus and guidelines for their artwork as well as to strengthen their understanding in art elements and principals of design.

Printmaking is indicative of Csikszentmihalyi’s theory of Flow. The theory of Flow states that “one is engaging challenges at a level appropriate to one’s capacities” and “clear proximal goals and immediate feedback about the progress is being made” (Nakamura & Csikszentmihalyi, 2002, p.90). When students engage in printmaking they experience the “magic” of pulling the print and in turn, experience the immediate feedback that is indicative of Flow. In addition, many students have an “intense and focused concentration” (p.90) on the task at hand, “experience of the activity as intrinsically rewarding” (p.90) as printmaking seems to have an instant gratification
factor to it. If the task is too much of a challenge, students may lose interest or become frustrated (Kay, 1998, p. 262).

**Recommendations**

Recommendations for further study in screen-printing include foremost the length of study and practice. It takes years to become proficient in any art. The researcher has been a professional photographer for over thirteen years and has three other degrees with two being based in the photographic arts. She is still practicing her craft and improving upon it based on photographic education. Learning is on going and life-long even when that learning involves an expertise. To fully learn screen-printing to the extent of being professional at it in a span of fourteen weeks or less is not realistic. This research proved to be an introduction of an education in learning screen-printing and how it may relate to teaching. Art Educators are students as well.

Personally, the researcher will use this study to connect to others. Connections are important as networking can support educating all involved. This can only improve the knowledge that an educator may have from her experiences as well as those who she may connect with. For example, the researcher connected with many people who influenced her in the study. In addition, this study will be shared with other artists and educators therefore further increasing the networking possibilities for the sake of education.

**Conclusion**

The research goals and questions of this study were answered. This new knowledge of screen-printing can be applied to the researcher’s teaching as she has
explored possible methods to find the most suitable for her students. She became a better Artist-Teacher through her persistence and perseverance through the study. This study clearly shows that problem solving; creative thinking and determination are of importance to any study of a new art form. “It’s not genius; it’s ingenuity (Ahlen, November 2, 2011, personal communication).
REFERENCES

Alhen, J. (November 2, 2011.). Interview by K Malone-Smith [Personal Interview]. Pittsfield, MA.


Daichendt, J. (2011). *Artist-teacher, a philosophy for creating and teaching*. Bristol, UK: Intellect

Davis Publications.


ffrench, C. (September-December, 2011.). Interview by K Malone-Smith [Personal Interview and Web Based Interview]., Pittsfield, MA.

ffrench, P. (November 1, 2011.). Interview by K Malone-Smith [Personal Interview]., Stockbridge, MA.


Hughes, P. (September 23, 2011.). Interview by K Malone-Smith [Personal Interview]., Pittsfield, MA.


Upper Saddle River, NJ: Merrill Prentice Hall.
Koch, B. C. (1943). Review of silk screening as a fine art. *College Art Journal, 3*(1),


Spring, A. (September 2011.). Interview by K Malone-Smith [Web Based Interview].


Todd, L. (September-November, 2011.). Interview by K Malone-Smith [Web Based Interview].


Appendix A

UNIT PLAN FORMAT
The Department of Art Education

<table>
<thead>
<tr>
<th>Component</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Katie Malone-Smith</td>
</tr>
<tr>
<td>Descriptive title for the unit:</td>
<td>Line Drawing through Screen-Printing: Students will explore line through the medium of screen-printing.</td>
</tr>
<tr>
<td>Unit Rationale:</td>
<td>This unit explores how students can explore line and space through screen-printing methods. “For preschool children to teenagers, printmaking is a source of fascination and challenge” (Hurwitz &amp; Day, 2007, p. 153). Learning the procedural lessons of the screen-printing process is essential to the unit. “Between the child and the finished print, lie a number of moves with intermediary materials that must be completed successfully before the final image appears” (p.153). Problem solving along with ingenuity are major indictors of artistic growth and creativity in this unit.</td>
</tr>
<tr>
<td>Goals:</td>
<td>Students should…</td>
</tr>
<tr>
<td>Understand:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• What kind of line design would make for good art for the screen-printing process? (MACF Standards: 2.2 &amp; 4.5)</td>
</tr>
<tr>
<td>Know:</td>
<td>• How to use composition and space to create successful and aesthetically pleasing artwork using negative and positive space. (MACF Standard: 2.6)</td>
</tr>
<tr>
<td><strong>Be able to:</strong></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>• Use screen-printing supplies and methods to produce successful prints. (MACF Standard: 1.5, 1.6, 1.7 and 1.8)</td>
<td></td>
</tr>
</tbody>
</table>

### Instructional Concepts:

This unit is reflected in the adolescent “need to develop the skill to produce art” (Kerlavage, 1998, p.54). Screen-printing is a challenging art form, as it requires the knowledge of learning new skills as well as creative problem solving. Screen-printing requires a balance between experimentation, as it is “a key concept for students at this stage” (p.54) as well as the need to learn and follow procedure instructions so they may find a formula to succeed in art making.

### Lessons:

- **Lesson One:** Brief overview of the entire unit will be discussed. Elements of art including space and line will be reviewed. Students will begin preliminary sketches of line designs using a variety of line and positive and negative space.

- **Lesson Two:** The Process of Preparing the Screen. Overview of the preparing the screen, screen drawing fluid and screen filler will be demonstrated. Students will prepare all of the steps needed with craftsmanship and attention to procedure.

- **Lesson Three:** The Process of Printing. Overview of printing will be demonstrated. Students will print. “Students love the physical and magical aspects of pushing the squeegee and getting a print” (Ahlen, 2011, personal communication).

### Resources and Materials:

- **Materials:**
  - pencils
  - copy paper
  - 8x10 silk screen frames
  - water based screen printing ink in various colors
  - screen filler
  - drawing fluid
  - squeegees
| Assorted Papers | assorted papers
paint brushes
spoons

• Exemplars
  Teacher’s screen-printing blog and video

• Teacher’s process and product visuals:
  Teacher exemplars
  Examples of past students’ screen-prints |
| Assessment: | Class discussions
Teacher oral feedback
Peer oral feedback
Student/Teacher written assessment |
| References: | Alhen, J. (November 2, 2011.). Interview by K Malone-Smith [Personal Interview]., Pittsfied, MA. |
## Appendix B

### Screen-Printing Techniques

<table>
<thead>
<tr>
<th>Time Spent on Method</th>
<th>Paper Stencils</th>
<th>Acetate Stencils</th>
<th>Screen Filler</th>
<th>Photo Emulsion</th>
<th>Drawing Fluid &amp; Screen Filler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 28th-Oct 28th, 1 month</td>
<td>Sept 29&lt;sup&gt;th&lt;/sup&gt;-Oct 30&lt;sup&gt;th&lt;/sup&gt;, 2 days</td>
<td>Nov, 5&lt;sup&gt;th&lt;/sup&gt;-Nov. 13&lt;sup&gt;th&lt;/sup&gt;, 9 days</td>
<td>Nov. 15&lt;sup&gt;th&lt;/sup&gt;-Nov. 19&lt;sup&gt;th&lt;/sup&gt;, 5 days</td>
<td>Nov. 20&lt;sup&gt;th&lt;/sup&gt;-Nov. 21&lt;sup&gt;st&lt;/sup&gt;, 2 days</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Successful? Y/N</th>
<th>N</th>
<th>N</th>
<th>Y &amp; N</th>
<th>N</th>
<th>Y</th>
</tr>
</thead>
</table>

| WHY? | Paper is too thin, ink seeps through on top and underneath. Wasted a lot of time with this. | Acetate curls, and ink seeps underneath | In theory it worked, but my registration was off and I started too ambitiously with a 4 color print. | Not sure. Takes more time than I had to research more. First screen either under or over exposed, second screen completely washed out. A lot of testing of exposure has to happen before successful prints can be made. | Knowing what I did wrong with the screen filler by itself, gave me knowledge about how to use the drawing fluid and screen filler together. Used just one color for ease and simplicity. |

### Advise from Interviewees and others. Who I corresponded with during research.

- Primm ffrench—perhaps use thick cardboard stencils or pieces of thick paper
- Crispina ffrench—won’t work. Suggested I interview her mother Primm & John Alhen
- Dan Hamilton—use the screen filler method with students as it isn’t as complicated
- Primm-told me that even Crispina came to her mother for help as her screen with
- Myself: I listened to myself, my husband, and friends via email and social networking,
| Could this work to teach to my students? | Maybe. Only if they are making like 1 or 2 prints and the stencils or shapes are very very simple. | I don’t think so. Not unless the acetate is extremely heavy duty. | Yes, but less colors, and less layers of screen filler. Screen filler doesn’t have to be super thick like I thought it needed to be. | Maybe, but not any time soon. Too many variables are involved in this method. | Yes! I think this one is a go! I will keep it simple for the kids with 1 color, and simple line drawings to start. |
## Interview Answers Chart

<table>
<thead>
<tr>
<th>Family and early influences have you had as an artist? (Your parents, relatives, a special teacher?)</th>
<th>When did you first get interested in art?</th>
<th>What was your professional training in art?</th>
<th>Where and what was your first art teaching position?</th>
<th>What art form is your specialty?</th>
<th>How have you taught screen-printing (where, when, and in what techniques and ways)?</th>
<th>What advice do you have for me as far as teaching screen-printing to middle school students?</th>
</tr>
</thead>
</table>
| **Primmffrench**  
Former High School Art teacher in the same district I work at. Co-Founder and Owner of The Dolphin Studio, which creates a silk-screened calendar for the past 5 decades. I teach her granddaughter Lily at the middle school. | Family encouragement along with wonderful teachers | Always been interested, always drew. | University of VA for Fine Art. University of NH for Pottery. Fellowship in Italy to study Mosaics. | Art supervisor at the age of 20 in VA. Worked with her roommate who was the same age. It was “the blind leading the blind” and the art educators learned and grew together. | Learning in VA from a fellow teacher at the high school where she worked. | Using screen-printing film, along with the adhesive that binds it. The designs are cut with a craft knife into the film, and the film is attached to the screen. Taught it at the schools she worked at. Students would make posters for school events along with covers for school publication. Cannot use the screen-printing film anymore with students, as the process is very toxic. Perhaps use the photo emulsion method, or use heavy paper stencils as long as they are tight with the screen. |
<table>
<thead>
<tr>
<th><strong>John Ahlen</strong></th>
<th>Uncle was an influence. Parents were not necessarily supportive and didn’t think he could make a living from art. Had a teacher in high school that ran his classroom like an open studio. This increased John’s interest in art. This teacher took the students to the Clark institute the first year it opened.</th>
<th>Always like art, and liked to draw.</th>
<th>None. Learned on the job at first printing job at Editions Limited.</th>
<th>Never taught in a classroom setting. Taught a few times to high school and college students who were interested in screen-printing. Brought them into his studio.</th>
<th>Helping other artists by reproducing artwork for them. Created “Brilliant Forgeries” of artist’s work, sometimes printing over 70 colors of each piece.</th>
<th>Started in 1959 at Editions Limited. Then worked at Excelsior Printing/Crane. Learned about art while he was printing. Printed for famous and local artists, as well as museums and galleries.</th>
<th>Have taught to a few students in his studio who were interested. Would have students come in twice. The first time the John would show then how everything is done so the students would have some understanding of the process. The second time, the students would come in with artwork ready and something to print on. John would help them prepare the screen and then they would print.</th>
<th>Make it simple for them. Due to time constraints, prepare the screen for them. Let the students do the actual printing so they can experience the magic of screen-printing. The teacher should know how to do the entire process; the students’ job is to experience the process for printing and possibly create an interest for the technique.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leah Todd</strong></td>
<td>No one in her immediate family, but her grandmothers did pottery and sewing.</td>
<td>Watching some DIY shows as a freshman in college, then became interested in creative endeavors.</td>
<td>Went to nursing school for four years, then dropped out before finishing and moved to Maryland to get a degree in photography.</td>
<td>Currey Ingram Academy in Brentwood, TN. She worked there for five years as the middle and high school art teacher.</td>
<td>Photograph and Mixed Media.</td>
<td>Wanted to teach her student screen-printing &amp; found supplies left over from the previous art teacher. Has taken some silk-screen workshops so she has some prior knowledge. Did a lot of researching and learning.</td>
<td>She taught her high school students the entire process from stretching the screen, applying the screen filler, to printing.</td>
<td>Be patient. Use the appropriate and good supplies. Start simple as possible. And...have fun!</td>
</tr>
<tr>
<td><strong>Amber Spring</strong></td>
<td>It was all around her.</td>
<td>While in high school, she enrolled in an Educational Transition Program where she was able to work on her Associate’s degree in liberal arts while fulfilling her high school graduation requirements. Took more screen-printing classes.</td>
<td>Her mother ran a day care and she would help out at craft time, but hated working with the kids. She had always been quick to pick up at things and the kids in the day care seemed to not appreciate art and the expensive materials.</td>
<td>Jewelry is #1. But also ephemeral art including food art, pumpkin carving, snow sculptures, egg decorating and origami.</td>
<td>In high school she took some CAD classes, a graphic design class, which is where she had the chance to learn screen-printing.</td>
<td>Never has taught it to anyone</td>
<td>Best results may occur if the students stretch and make their own screens. Try using the freezer paper technique.</td>
<td></td>
</tr>
</tbody>
</table>

Friend and classmate from BU. Meet online, then at Summer Studios.
carve jack o’ lanterns, and her mother who would design Halloween costumes. Additional, her father worked at a foundry where he worked in drafting, 3-d and mold making. Art supplies were scarce, so she had to be creative with found objects for materials.

Dan Hamilton
Friend since 10th grade in high school. (17 years)

Dan’s mother is a public art teacher and an artist. In fact, Mrs. Hamilton taught my husband art.

Art has always been a part of his life.

An Illustration degree from Temple University and Western Connecticut State.

Never taught it formally. Helped out with mother’s private art lessons in her studio.

Illustration

Self-taught in high school in the mid-late 90’s.

Never taught it.

Don't try to get too fancy with the photo emulsion technique. Have them create images with blocker fluid and print that way.

printing classes. Did photo emulsion method as well as a technique with freezer paper. After graduation, she was still interested in the arts and has had a life long interest in geology. Attended RIT and took more classes in screen-printing.
The blog included 44 posts dated from late September, 2011 to mid December 2011. Posts included photographs, videos, memos, notes and reflections. The blog served as an online journal/research notebook and photo documentary. A few posts are listed below followed by the blog address for complete posts.
A day at the Dolphin Studios

Part of my research includes spending a day working in a screen-printing studio. I spend a day at the Dolphin Studio, which is housed at Alchemy Initiative in Pittsfield, MA. Special thanks to Sophie & Crispina for making this happen and thanks to Pat for teaching me so much about screen-printing.

My memos from the day:

The Dolphin Studio produces about 2,000 calendars each year.
Custom Colors.
Entire calendar has to be under 1lb for shipping efficiency.
Ink-Acrylic
Registering is essential!
Register first under the screen with the sketch-up so you can see what you are doing.
Register corners.
It is important to use rulers, t-squares & straight edges.
Be precise!
Nail polish as a blocker, I thought it was color inspiration!
Extender base & water added to it & second bucket make more ink.
The spatula is a great tool to scrape off ink off sides of ink buckets.
The Dolphin Studio prints each month in 2 colors, although, 1
month is just 1 color.
Lots of wet rags, got to keep everything clean!
Clean the screen!
Busy & Stumped

So, I've just been working on the writing assignments in class since my yellow background failure last Thursday. I've been so busy! School (work) is busy. I teach 6 classes a day. Then we have a 1-hour long commute home every day. Not to mention, all the regular stuff in life: figure skating, cats, friends, families, managing the bills, cooking food, cleaning the house, appointments, daily emails and phone calls. Plus working of Clint's business, constantly: http://clintonfsmith.blogspot.com/ and doing the graphic design for my dad's business: http://thesodapopsite.blogspot.com/. I feel like we could really use an extra personal in the house here, like an assistant or housekeeper. But that's not going to happen. I don't mean to complain, as I love my life and job, I just wish there were more hours in the day, and our commute really wastes 2 hours a day, which I really really could use. I cannot take it when people say they are bored. The constant “I’m bored” posts on Facebook drive me nuts! I don’t think I’ve been bored since I was like 12! You are bored, I’ll give you something to do!

Anyone else having a hard time playing catch up this week?

HELP!

Can anyone help me with my messy border problem? I feel like I cannot go on, until I know what I am doing wrong. I have looked online and in books, and have found nothing. Please? Anyone?

Here is the failure of my first screen one again:
Can I rename this blog the Screen-Printing Disaster? Part 2

So Clinton thinks it’s me. Something that I am doing wrong is causing failure. Sure, go ahead & try...He even tries some different things, like not taping the back of the screen. Failure follows.
TUESDAY, NOVEMBER 1, 2011
An interview with Primm at The Dolphin Studio

It was an honor to meet with and interview Primm tonight! Aside from asking the standard protocol of interview questions that I must ask everyone so the thesis must stay valid, I was able to ask her questions about teaching, art and her life. Ever since moving to the Berkshires just 6 years ago, I realized how much I love the history of these small towns and the people who carry their stories. The Berkshires are a small community and it was exciting to know that we (Pimm and myself) had so much in common as far as people we have known throughout the years and teaching. Primm and her late husband John were the head of the art department and taught at Monument Mountain High School, whereas I teach at Monument Valley Middle School, just down the hill. I student taught with Alice who was the former middle school art teacher who Primm knew very well. My favorite part of the night was viewing the very first calendar Primm & John ever made in the late 1960's when they were living in Ireland. (I have this on video!) I have an hour of tapes and videos to view, edit and transcribe this weekend for my research. In the meantime, I do have these photos of the fabulous studio. To learn more about this fabulous family, go to http://thedolphinstudio.com/

WEDNESDAY, NOVEMBER 2, 2011
An interview with Screen Printer John Ahlen

I was able to interview John Ahlen tonight along with his wife Marie. John had a long and successful career in screen printing making prints for well-known artists, as well as original prints and cards himself and in collaboration with other artists including John Stritch and Julio Grande. As far as screen-printing, John has been known to create pieces with over 50 colors, and therefore 50 screens were used. Some of his techniques were very unique and experimental. John offered me some valuable advice as far as how to teach middle school students screen printing. Some tips include:
1. make it simple for them and myself.
2. prepare the screen myself so students can print instead of prepping.
3. Use techniques that work well such as photo emulsion rather than paper stencils or plastic stencils.
I have an hour of tape and film I will transcribe this weekend. Thanks John!
It's going okay....

So, I want it to go perfectly. As a perfectionist, I expect nothing less. But, whatever I guess. It's handmade, so can it always be perfect? And furthermore, do I always need to strive for perfection? Ducks in a row? My registration is off. Seems like I have too much screen filler on both sides. So, I did print a bunch, but will also adjust the screen printer and try again tomorrow, or very early this week as I am running out of time here!!!

---

Alice's Restaurant

Tired tonight. Too tired to do anything except lay here and watch Alice's Restaurant. Always seems appropriate since we live and work in Berkshire County. Luckily, I found a scene in the movie that I have use in my research (maybe, kinda, sort-of). There they are, silk screening Trinity Racing Association t-shirts in the Trinity church that Alice & Ray bought. You'll have to watch it to see what I'm talking about, since I'm too tired to take go photo of my tv.

Posted by Screen-Printing, the Art-Based Research Adventure at Thursday, November 10, 2011
It worked. I'm done. How weird.

Expecting to fail once again, but I didn't. Printed 30 prints on various shades of blue and silver paper. One color. I'm pleased, but it is frightening me the amount of work I still have to do as far as editing the video, and writing chapters 3, 4, the abstract, appendices, and whatever else I need to do. Yikes!
Ever the documentarist, the researcher edited a video comprised of film clips and photographs set to music. Each piece of music was set to particular series of photographs and film clippings to enhance the tempo and emotion of the scene.

Video is located at: http://vimeo.com/32737158