Paper, Pencil, and Crayons:

A Case Study in Building Visual Literacy Skills for College Students

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Abstract. A case study approach involved students enrolled in a sophomore-level visual communication course who struggle to construct a three-dimensional artifact using Photoshop. The students could not create a sense of depth needed for an effective composition. They did not understand how to translate their ideas to the landscape they were designing on a two-dimensional plane. Two case studies took place at a museum housed on the campus of a small liberal arts university in the Midwest. Students took part in a unit on composition in art, which was proposed to see how theory and practice worked when using the tools in the Photoshop program. This case study used the method of observation, analysis of documented student comments, student scores, and data collected from assessment reports to determine if learning occurred. Students met in the museum where they worked on creating visuals that started with the creation of three-dimensional displays, continued with blind contour drawing, and finished by creating art with construction paper. Overall, the unit served as a way to increase the learning experiences of the students in the Visual Communication class by providing them access to real pieces of art. They also learned the skills of observation and interpretation of art as a method needed to understand the construction of visuals.

Keywords: Hands-on learning, museum artifacts, Photoshop, three-dimensional, visual literacy,

he work seen in visual literacy is taking a step back in time to bring students into the stimulating future of an image-rich world. From conversations with colleagues in the field, many shared that "the pendulum is moving backward" in visual design (Personal Communication, 2018) --- a view reinforcing the use of hands-on activities in this study about visual-making in the college classroom. Further, Rhonda Robinson (2018), a long-time member of IVLA and a visual literacy scholar, spoke about hands-on activities using paper and crayons to engage students.

Working in digital art requires background knowledge of the basics of good practice. A person needs to understand the art's basic elements before one can master a tool such as *Photoshop* (Wennekes as cited in Maraviglia, 2010). Past scholars reinforced the need for students to go back to the basics so they can understand how to create visuals that are as effective on paper as they are when recreated using a computer.

Background

Visual Communication is a course requirement for all communication and marketing students, used as a foundation for understanding the encoding and decoding of visual messages. Students in many classes struggled to create a visual that mimicked the depth of field, a visual in three-dimensions, using Photoshop, an Adobe professional photo manipulation software application. One of the assignments in the course provided evidence of students' difficulty understanding the use of layers, a core element of the program. Layers are often used to arrange different visuals to appear as if they are in the foreground, middle ground, or in the background to create an illusion of depth. From past course experiences, the researchers found that students could not create a sense of depth needed for an effective composition for two reasons: 1) they did not understand how to translate their ideas to a three-dimensional design they created on the two-dimensional

plane of the computer screen, nor 2) could they grasp the concept of layers.

The class began with a unit on visual literacy and the "compositional source" of the basic elements found in all designs. All of the classes, before and after the study began, started with readings from Dondis' (1973) Visual Literacy. Dondis explained that "What you see is a major part of what you know, and visual literacy can help us to see what we see and know what we know" (p.19). Dondis posited that what might be "the most crucial to the development of visual literacy" (p. 14) are the basic elements of composition. Everything seen and designed is composed of these elements, what she called a "toolbox." Students needed to learn the essential elements that made up this literacy to truly see a visual and understand the meaning,

During the first part of the class, students learned the core visual elements of visual literacy, those of dot, line, shape, direction, color, and scale (Dondis, 1973). With this information, the students learned that "visual literacy implies understanding, the means of seeing and sharing meaning with some level of predictable universality" (p.192). In addition, as Avgerinou (2007) argued "in the context of human, intentional visual communication, visual literacy refers to a group of largely acquired abilities, i.e., the abilities to understand (read), and to use (write) images, as well as to think and learn in terms of images" (p.18). Visual literacy is essential when learning how to create effective visuals, whether in the real or digital world. Furthermore, the definitions presented sum up the focus of this research because in addition to learning the vocabulary of visual literacy, students learn how to read and produce images. More importantly, they learn to think in terms of the correct interpretation of the visual thev create.

When students finished the visual literacy as a course component, they advanced to the second unit which covered Image Composition, Design, and Photoshop. In this unit, students were asked to use Photoshop to create a montage using the techniques and elements of composition previously discussed in class. The assignment required students to design a

montage using the tools they previously learned from the Photoshop lessons plus the basic elements of visual literacy and balanced composition. The assignment was broken into two parts: 1) a draft of the composition based on the basic elements and principles of design, and 2) an image as a final product based on the instructor's feedback from the draft.

Although visual literacy terms are discussed multiple times in the class, the students seemed not to grasp how depth was shown using a computer program. Artifacts produced did not show evidence that students understood the concept of depth (e.g., foreground, middle ground, background) or composition (e.g., alignment, proximity, contrast, etc.) (see Figure 1). Examples of student-created art seemed to demonstrate the lack of understanding of how to design the concept of depth of field with Photoshop. Although students tried to change the image's size, they did not demonstrate the concept of alignment or unity in their designs. They found images they liked, such as superheroes, but there was no sense of purposeful placement. Students randomly placed images on their chosen background without any evidence that they understood the rules of composition.



Figure 1. A first draft created in the classroom.

The same problem existed in other classes as observed by the researchers. When students initially worked on the assignment, they looked for photographs of landscapes and simply added images to the top layer. For example,

students inserted images of their favorite animals or places without regard to the logical placement of the image to create a realistic or believable landscape. The images seemed not to appear as part of the picture (see Figure 2). The lack of under-standing in completing the assignment indicated that the students needed to learn how to look at their work as an artistic composition.

The aforementioned assignment was also the first tier of the Communication Department's assessment plan. The first time the assignment was assessed, most of the students scored a 0 or 1 out of 3. These results occurred across two sections taught by two different professors, so it was apparent the students were not grasping the concepts.

From the professor's point of view, the assessment outcome reported that students were not able to make the connection between art (created in the real world) and a way to build a three-dimensional visual using Photoshop (the two-dimensional plane of a computer screen). Several reasons contributed to this difficulty. Students in today's college classrooms "do not possess a high degree of visual literacy" (Kedra & Žakevičiūtė, 2019, p.44) and, therefore, no one is automatically visually literate. Further, students are bombarded with so many visuals daily, they do not pay attention to them at all. Teaching them to create a visual will help a great deal in improving the skills they need, today more than at any other time. "Because so much information is communicated visually, it is more important than ever that our students learn what it means to be visually literate" (Baker, 2013, p.32).

Anecdotally, students did not understand why they needed to know about the elements and principles of design in a visual communication course. A contributing reason may have been that they were marketing and communication majors, not art majors. Moreover, the students are not young children anymore and, as Hicks (n.d.) noted, older students are more hesitant to show their art.



Figure 2. Example of a student-produced image containing a randomly placed image without regard for composition, reason, or scale.

This may prevent them from asking the right questions. Matusiak, Heinbach, Harper, and Bovee (2019) argued that teaching visual literacy in higher education is not only critical but must be taught in required courses. However, this is not always the case. The course in this study was not designed until eight years ago.

The ability to be visually literate is even more critical as students move into the workplace. As Frandino (2015) wrote, "Visual literacy provides students with the ability to express their thoughts and emotions and to understand the expressions of others" (para.4). Marketing and communication majors must understand the principles of visual literacy to be successful when they are working with clients to determine what they want and how to deliver it. A student's age, their lack of understanding of the need for the class, and a lack of visual literacy skills prevented the students from engaging with the material.

Schingoethe Fellowship

In 2015, a serious discussion took place between the researcher and Meg Bero, the Executive Director of the Schingoethe Museum, a Smithsonian Affiliate that resides on the campus of Aurora University, a small liberal arts university in the Midwest. Before Bero started working at the museum, she taught art at a grade school in the area. Her career in art made her the ideal collaborator because she was an artist and an educator who understood what to teach and how to work with students, content, and methodology.

A visit to the visual communication class revealed a lack of exposure to visual critique. As an artist and art educator, Bero saw a need to expose students to the language aesthetics. Many students reported that they had not been in an art class or made artistic objects since elementary school. If they had been away from creating art for that length of time, how could they be expected to understand composition if they did not understand the elements that make up a composition? It would be like baking a cake without a recipe or composing a musical score, not knowing how to read music. Art making is a process. It involves critical thinking, problem-solving, and an understanding of the materials and techniques. It was essential to interact with the art in person and experience the hands-on process of artmaking.

As Schingoethe Museum's Executive Director, her vision was greater than simply a place to exhibit and view art. The museum also functioned as a laboratory on campus, where ideas and experiences enhance classroom instruction and enrich students' education with an in-depth and interactive visual understanding. As a result of the discussion between the researcher and the executive director, the researcher proposed a lesson requesting the Schingoethe Faculty Fellowship. The executive director approved the fellowship to investigate a way of helping students make a connection between content (reading and designing visuals) and their visual literacy skills. This connection bluow enable better а understanding of the process needed to create meaningful images. The fellowship awarded to the researcher in 2015.

A collaboration between the communication instructor (the researcher) and museum's executive director (the instructor) took place to determine the best way to reach the students. The fellowship allowed the researcher to take a

look at what occurred in the classroom and identify the gaps in student learning needed for their success.

Research Question

Asking the questions about these gaps led to the goal of the fellowship, which was to prepare students for the transfer of knowledge used in creating a physical design to a digital model. In other words, could students learn how to compose a digital work of art by learning how to design a museum display, as well as the vocabulary and practice of creating a balanced composition by hand?

Method

The method chosen for this research was a case study. The Center for Innovation in Research and Teaching at Grand Canyon University (n.d.) defined case study research as using objective and subjective data to create a narrative description of an occurrence or experience. The case study attempts to answer descriptive question about research conducted in the place where the question arose (Yin, 2011). Stake (1995) argued that data could be drawn from early observations research, along with document review. This method was chosen because we were trying to learn what was preventing the students from learning a specific assignment.

The Case Studies

The work of the fellowship provided the framework for two case studies: one took place in the fall of 2015, and the second case study was conducted in 2018.

A unit on composition in art was proposed to help students make a connection between the structure, form and symmetry of composition and the use of Photoshop. This connection was vital to their learning because students needed to connect theory and practice to understand how to compose a 3-dimensional landscape for the class assignment using the tools and layers of Photoshop. Conducting a unit in the museum could provide students with the experiential learning experience of developing observation skills required to read a visual (decoding) and the process of interpreting the way to construct (encode) a visual. These skills would provide the basis needed to design a digital artifact.

The instructor generated three activities to broaden student's visual vocabulary and critical thinking skills. The first activity taught the students how to analyze and critique a piece of art through guided inquiry. The second was an exercise in composition and observation while the final one focused on the exploration of the depth of field and material manipulation in a landscape. These three activities took place over three class periods and consisted of 75-minute classes.

The case studies involved university students enrolled in a sophomore-level visual communication course. Each year, four to five sections of the course were taught in a computer lab with 24-30 students in each section. This course was required of all communication and marketing students.

Case Study #1

Population

The population of college students ranged from sophomores to seniors, with a total of 28 students in the class. Their majors varied, with approximately 2/3 of the students majoring in Communication and 1/3 of the students majoring in Marketing.

Data Collection

The following case study used the method of observation combined with documents produced throughout the course to determine if learning occurred.

Observation. The method of observation occurred as the students were working in the

museum. Watching the students work allowed the instructor and the researcher to see how much students understood and provide immediate feedback to their questions. Observation also provided the instructors with a way to observe the struggles the students had as they worked through the unit. After each day, they discussed what students did and how they were working. For example, watching them tear and re-tear paper to make sure the scale was correct illustrated that this process was either new to them or had never been done before coming to the museum.

Assessment. The assessment report provided data on the success of students based on the level of the skills required in a sophomore-level class.

Grades. Finally, the grades they received on the major assignments were collected to assess student success at designing the visual.

Process

The first class involved in the case study went to the museum in the 2015-2016 academic year. Their first major assignment was the same one used in previous years. The assignment asked students to create a montage of images using the techniques and elements of composition discussed in class (see Appendix A). Students learned the components of visual literacy and the basic elements and principles of design. This time, however, students met at the museum before they created their final montage, and scaffolding was used to boost their success with each task.

Scaffolding is one path that can lead to student success. Successfully scaffolding their knowledge can be done with, according to Schroeder (2012), "deliberate practice" by performing more manageable tasks before taking on the complexity of creating something in Photoshop. This process of deliberate practice was used for scaffolding students in their learning from the physical world of three-dimensional art (museum displays) to its replication on the two-dimensional plane seen on the computer (digital image creation). Students practiced composition by starting with

a basic explanation of composition and concluding with a creation of a three-dimensional piece of art. Each activity built upon the knowledge of the previous one, while providing practice at every stage of the unit at the museum.

On the first day, students were asked to describe the elements in a museum display case and talk about the things they noted. Several students spoke of color and pattern, but no one discussed the arrangement of the elements, which the instructor then explained. She followed this by asking questions about the current art installation, a practice she calls Learning to Look, thus teaching them how to see the composition and think about how it was created with the elements of design.

Learning to Look

Learning to Look (Hood Museum of Art, 2019) is "an approach designed to help viewers look carefully and think critically about any work of art" (para.1). The concept was first discussed in 1957 and updated in 1981 by Joshua Taylor. Taylor (1981) argued that looking is a "collaborative product of the active eye and the remembering, formulated mind" (p.153) the viewer actively participating with the artist. The close viewing of this approach filled the role of analysis as the students answered a series of exploratory questions about the paintings displayed. Students also responded questions on how the artist used color, texture, line, shape, form, balance, rhythm, pattern, and movement (foundational design elements and principles). Students were asked to describe how the artist achieved the illusion of depth on a two-dimensional plane. They reflected on the artist's intention and how the tools of art were implemented to create meaning.

The Projects. As previously mentioned, artmaking is a process. The opportunity to experiment and revise is a critical step. The use of exhibit display, blind contour drawing, and the torn paper technique were used to facilitate this vital progression.

Museum displays. On the first day of the unit, students went downstairs and were placed

in groups of 5-7 people. They were asked to create a display out of objects they brought with them. The three-dimensional composition would be viewed "in the round" with no distinct "front"; all sides became "the front," a concept that was especially challenging for some. Student-created displays contained objects varying in size, shape, color, and material that were placed on display platforms and small easels from the museum's collection. As a group, they critiqued the composition of each display and were allowed to make changes based on group suggestions.

Blind contour drawing. On the second day, students did a line drawing of their displays. They were not allowed to look at their hands, only at the objects as they drew them. Also, only the contour or outside edges of the objects were drawn on the large sheets of paper using a black felt-tipped marker. The final restriction was that they could not lift the marker from the paper while drawing.

- Blind contour drawing is an exercise that constrains the artist's focus, resulting in careful observation. It is one of the first tasks a new artist will learn; it is beneficial to their creativity because it frees them from the idea that they need to be a "perfectionist" (Anderson, 2015).
- There are also no expectations that the drawing would or should look realistic. "The technique is not only an effective way to break bad habits; it's also a way of being present" (Anderson, 2015, p.24). Students were encouraged to relax as they watched Bero demonstrate this method of drawing. Fear and intimidation are often present when faced with the unfamiliar, especially when suddenly asked to "be creative." This drawing exercise encouraged experimentation (see Figure 3). Next, students chose crayons and colored-in the resulting free-form shapes. Students appeared

- to enjoy this exercise, which was meant to build confidence.
- This day also contained a lesson about the elements and principles of design (see Figure 4). This lesson mirrored the one given in their visual communication class before the museum unit started. Students soon discovered that the language of design was the same, whether it was in a work of art or on a computer. In fact, the first time students heard about the elements and principles of design at the museum, one student stated, "She used the same terms you taught us in class." Linking what was taught in class to art was the beginning of their understanding about visual composition and how to transfer that knowledge across different mediums.

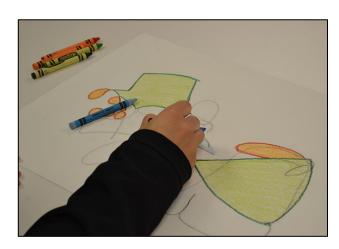


Figure 3: Coloring free-form shapes

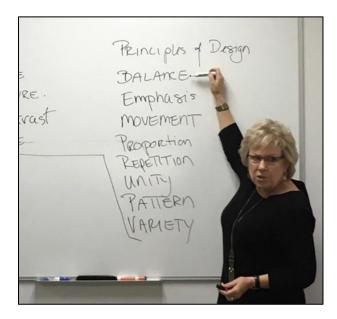


Figure 4. Meg Bero teaching a lesson on the elements and principles of design.

Torn paper landscapes. The final day at the museum involved the creation of an art piece students designed using construction paper (see Figure 5). The torn paper technique allowed students of all skill levels, with little experience making art, to be successful creating exciting compositions without a lot of instruction or practice. Again, there were no expectations of realism. The instructor demonstrated techniques of tearing, layering, manipulating the paper, creating texture and depth, and the three dimensionality of the medium with the creation of a landscape. Specific to landscape composition was the discussion of foreground, middle ground, and background, and techniques for creating the illusion of depth of field. For example, rendering objects in the foreground with the most detail, the middle ground with less, and the background with the least amount of detail to show depth in the art were demonstrated.

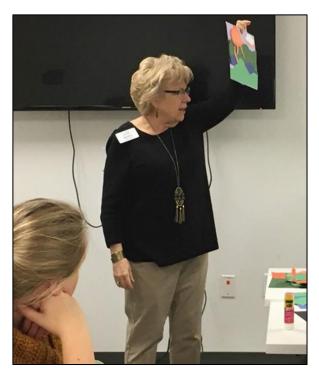


Figure 5. Bero shows students the torn paper technique.

The instructor and the researcher observed the students and asked them to explain what was working and what was not. The need to explain their art forced students to think about the elements of composition used in their work, which helped them with their revisions. It was also helpful for them to see other students' art as a way to gauge their success.

The finished projects showed various levels of skill, but evidence of the process revealed well-developed compositions, which exemplified a clear understanding of the elements and principles of art. An exhibit of the work completed the learning experience, mimicking the expectation that graphic arts are for the public. A descriptive label with the course title

and student names accompanied the display (see Figure 6).



Figure 6. Finished art on display.

Results of the 2015-2016 Case Study

After the unit at the museum, the transfer of knowledge about depth and composition was apparent in the work several students completed upon their return to the lab. One particular piece of art, shown below, illustrated a clear understanding of depth in construction paper art and in the creation of a composition using Photoshop (see Figure 7).

When it was time to assess their grades, there was an equally noticeable improvement in their scores. The assessment was conducted using a standard rubric (see Table 1). The complete assessment rubric covered multiple areas of design, with the use of the design principles shown as the first assessment point (see Appendix B).

Results showed a 2% increase from one, three-day unit over the last semester's result in the students' use of the design principles (see Table 2.

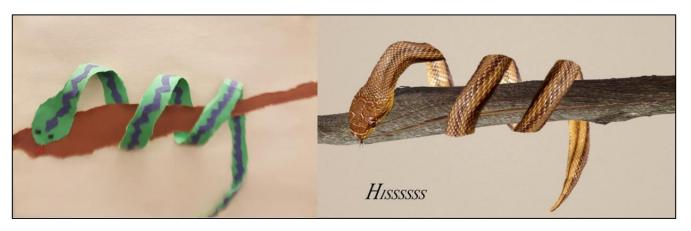


Figure 7. Transfer of knowledge from construction paper to *Photoshop*.

Outcome 4A		Course/Assignment		Student ID#
Visual Communication		Evaluation Date/Term		
Category	5 - Distinguished	4 - Proficient	3 - Apprentice	2 - Novice
MDS1-A Design Principles	Student application of design principles represents the work of a professional. Attention to composition, surface, finish, and sizing on an exceptional level.	Student exhibits a good understanding of the medium. Principles of surface, composition, and content are used in an effective way.	Student attempts to use the basic principles of value, color, and texture. Composition is unorganized/simplistic.	Student exhibited little understanding of design principles.

Table 1: Rubric used to assess the assignment.

	MDS1A 2015	MDS2A 2016
Average	2.571428571	2.777777778

Table 2: Average scores on the assignment.

It was the first implementation of this unit, and students were already providing evidence of a positive change. Moreover, it was not the assessment number that was so amazing – it was their art (see Figures 8 & 9).





Figures 8 and 9. Construction paper to digital illustration.

Case Study #2

Visual communication students returned to the museum again in the fall of 2018. The research question and the methodology used in the case study remained the same as the study conducted in the 2015-2016 academic year, but changes were made in the initial analysis and use of museum artifacts, population, and data collection.

Population

The number of students in the second case study was 25. The number will never go above 30 because it is based on the number of computers in the lab.

Data Collection

The assignment was changed from a montage to a landscape. Additionally, it was removed as the assessment assignment, so that particular data was no longer available.

Observation. The method of observation remained the same in the second study.

Assessment. The use of assessment data was no longer valid tool to use in the 2018 study because the assignment was changed.

Documented Comments. In the place of grades, students were asked for their viewpoint on the unit conducted at the museum. They were asked to post comments to the course management system and to voluntarily provide their thoughts on the unit at the museum.

Process

When the students went to the museum to observe the current art installation, the exhibit had paintings by a local plein air artist of the Fox River and its watershed in Illinois. Students were asked to identify their favorite piece by placing a paper icon in front of it. They were given time to facilitate careful observation, were asked not to talk, and students were encouraged to walk through the entire show



Figure 10. Blind drawing filled in with color.

before choosing their favorite piece. The three works with the most icons were then analyzed or critiqued as a group.

Unlike the first study where students were asked to bring objects to the museum, in the second one the instructor provided the artifacts from the collection for students to use when creating the 3D display. This provided more controlled variety in size and shape. Students were put in groups to work collaboratively as curators, to create a pleasing display.

Although the unit continued with the same activities as in previous years, such as the blind contour drawing activity (see Figure 10), one significant change involved the students' final draft of the assignment. In the first case study, students knew they would remake the same montage project back in the computer lab. In the fall of 2018, students learned the objective of the museum unit (a re-creation of the construction paper landscape) on their last day at the museum. This was done to prevent a common occurrence when working with Photoshop: students tend to choose the tools they are familiar with first, and do not consider the visuals or the arrangement needed to create a unified composition. The complexity of the

Photoshop tools prevents them from thinking about applying the elements and principles of design to their work.

As in the original case study, students were given an assignment that asked them to apply the principles and elements of design to a composition using Photoshop. Students started learning Photoshop in Fall 2018, where they learned about layers, how to use three of the tools (move, eraser, and lasso), and the accompanying program shortcuts (select all (CMD+A), transform (CMD+T), cut (CMD+X), and paste (CMD+V). This first draft, turned in one week later, was returned to the students with feedback. The class went back over the elements and principles to determine what worked, or did not work, in their drafts.

Once again, the unit took place over three class periods; students met at the Schingoethe Museum, were introduced to the artifacts on display, and the method used in creating those displays. This time, however, the art installation was that of a painter who specialized in landscapes. Bero started the class by asking the students to discuss the elements of design they saw in the paintings. The paintings were used to discuss depth of field, alignment, etc. Students continued by creating visuals that started with three-dimensional displays designed with artifacts provided by the museum, continued with blind contour drawing, and then moved on to finding images within those line drawings.

With these core tasks completed, the students used construction paper to create art in 3-dimensions (see Figure 11). They chose colored paper to create layers of different elements, such as trees, mountains, etc., being mindful of the depth and scale needed to make the landscape look realistic. As they set about creating their paper landscapes, the researcher and the instructor helped them as they figured out how to tear the paper to design the pieces of their art.



Figure 11. Construction paper art

When they finished the paper landscapes, the students discovered that they would recreate their three-dimensional construction paper art in the classroom using Photoshop. Afterward, they took pictures of their art on their phones so they could reference their work as they re-created it digitally. In the past, students used the tools they understood or liked to use. Announcing the final draft requirements after the lesson, when the students already knew how their landscapes should look, allowed them to focus on using Photoshop as a tool, like a painter uses a paintbrush. Thus, students did a better job of creating a replica of the construction paper landscape they had done at the museum.

Results of the 2018 Case Study

Results of the second study provided examples of fantastic art; art that started on construction paper and ended up as a digital composition

In addition, their perception of the learning they did at the museum was strong. When the unit was over and students were back in class, they were asked to share their thoughts on the unit taught at the museum. Here is a sample of what they said:

I loved the idea of being able to grab inspiration from things I could see in real life. It made the activities easier and made the Photoshop document in return far easier, focusing on using the tools rather than spending a majority of my time brainstorming what I wanted to make.



Figure 12. The same art created with Photoshop.

The use of "hands-on activities with paper" was, at first, puzzling for the students. They were in a class on the creation of messages using technology, so why were they drawing on paper? What kind of college class has you tearing paper and gluing the pieces together? It did not take them long to engage with the materials and see the reason for the museum unit.

I loved working with the basics of a glue stick and construction paper. Getting older I feel you lose the sense of imagining [sic] things which was very difficult for me because I hadn't done anything like that in years.

Conclusions and Future Study

Overall, the units in the case studies scaffolded the learning in the Visual Communication class by first providing students with access to real pieces of art. The art discussions helped them learn the skills of observation and interpretation of art as a method needed to breakdown and apply the principles of design. Deliberate practice helped to focus their attention on individual aspects of the unit as each of the activities built upon the preceding ones. This helped students understand what was expected by completing simpler tasks as suggested by Schroder (2012) before attempting the more complicated task of creating art using *Photoshop*.

The process of bringing students back to the basics of making art by hand helped them gain the visual knowledge of how to create digital art, a skill they could not understand when arranging images using a computer. An increase in scores indicated that the collaboration with the museum helped students learn how to recognize and apply design elements and principles, a vital element needed to be visually literate (Dondis, 1973). When they returned to the lab, they successfully applied the principles and elements of art to the layering and composition of a landscape using Photoshop.

Returning students to the basic act of creating art by hand enabled them to put their newfound understanding of art and the fundamentals of visual literacy into practice and create three-dimensional art on the twodimensional plane of the computer screen. They needed to see with their hands and envision the possibilities by physically placing one piece of art behind the other to understand both composition and the layers used in Photoshop. Hands-on work increased their understanding of depth of field and their visual literacy skills. The use of paper and pencils, at first looked upon negatively, turned into a fun activity that increased the learning experience in which the students saw value in the hands-on activities. This anecdotal study was the start of a larger project that is ongoing. Research taking place in Fall 2019 involved students taking the class with other professors. A pre- and post-test was conducted with a focus group to determine the success of the study. This focus group may provide insights into the future use of three-dimensional art to promote learning in an advanced graphic design course, *Layout & Design*. This advanced course, which deals specifically with the in-depth use of design tools, was chosen to determine if the museum artifacts provided a greater understanding in a class with a specific focus on design.

Future research will also look to see if the art found in specific exhibits exerts an influence on the success of the students' artwork in the lab. Moreover, the research will focus on the students' perception of the process, the data from students' grades, and the result of the focus group in an effort to triangulate the information found in the case studies discussed herein. This information may support the effectiveness of this process in the learning taking place in the courses. Moreover, in future collaboration a display of the digital landscapes adjacent to the torn paper versions will provide further examples of the process used and its success.

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Wicks, P., & Bero, M. (2019). Paper and pencils: A case study in building visual literacy skills for college students. In D. M. Baylen (Ed.), *Dreams and inspirations: The book of selected readings 2018* (pp. 80-95. Carrollton, GA: International Visual Literacy Association.

Appendix A

Montage Assignment

COM 2850: Visual Communication

Exercise #8 - Montage Draft (15 points) & Final Montage (25 points)

DUE: Draft – October 15, Final – October 22

Assignment: For this activity, you will create a montage of images using the techniques and elements of composition discussed in class. You may choose a band, hobby, your favorite televisions shows, movies, a business (Netflix) or a product (M&M's).

This exercise will be completed in two steps: 1.) a draft of your project and 2.) the final exercise. This is done to provide you with feedback on your first montage to help you prepare a well-designed final product.

You will be graded on the **composition** of the images (foreground, middle ground, background), your Photoshop techniques, the font use and size, and the quality of your images (i.e. they are cleanly cut out, correct scale, appropriateness of the images), and the amount of creativity and effort used in the creation of the montage. You must practice the skills of good design and composition.

Follow these steps:

- 1. Create a folder on the desktop labeled: LastName_Images
- 2. Find images using one of the links posted to Moodle that represent your topic. (REMINDER: These must be copyright free images (e.g. public domain, Creative Commons, Wikimedia, etc.). When you look for images on Google, you can select Images > Search Tools > Usage Rights > Labeled for Reuse. These are images that you have permission to use.)
- 3. Open Photoshop
- 4. Create a new document with a resolution of 300 dpi.; make the size 640 W x 480 pixels H.
- 5. You can either paint the background or choose an image to use as your background.
- 6. Open up the images you found for your montage.
- 7. Cut out arrange your images on an appropriate background. You must use a minimum of eight (8) images; the images must have a transparent background.
- 8. Add text that tells the viewer the overall theme of your design (e.g. *Dr. Who* fan, football player, videographer, Milky Way.). Do NOT include your name in the montage.
- 9. When you are finished, flatten the image and save it as a .jpg. Name your montage using the following format: LastName_COM2850_MontageDraft and LastName_COM2850_MontageFinal
- 10. Upload the file to your Dropbox account or other cloud-based storage.
- 11. Save the images folder you saved to the desktop to your cloud-based storage.
- 12. Submit your files to the Moodle submission titled "E#8 Montage Draft" and "E#8 Montage Final

Appendix B

Assessment Rubric

Communication & Media

Evaluator:	Student Name:
OUTCOME COM-3B Course/Assignment:	Message Creation (Visual Communication)
Evaluation Date/Term:	Student ID#:

Category	5	4	3	2	Score
COM-3B-a Design Principles	Student application of design principles represents the work of a professional. Attention to composition, surface, finish, and sizing on an exceptional level.	Student exhibits a good understanding of the medium. Principles of surface, composition and content are used in an effective way.	Student attempts to use the basic principles of value, color and texture. Composition is unorganized/simplistic.	Student exhibited little understanding of design principles.	
COM-3B-b Layout	All elements work together and contribute to attractive design.	Student shows ability to effectively combine elements of layout.	Some evidence of combining elements in a meaningful way.	Elements seem random without much unity.	
COM-3B-c Typography	Student shows extensive knowledge of text tool in Photoshop and/or is showing extreme improvement from previous assignments.	Student has the skills with the software, but final result lacks precision. Good understanding of blending options.	Student has exhibited the basic skills using typography. Blending options were used minimally.	Limited signs of applying learned skills. No indication blending option application.	
COM-3B-d Technical	Student demonstrates mastery of the software.	Student has a good understanding of the software.	Student has minimal understanding of the software	Little to no understanding of the software.	
COM-3B-e Effort & Persistence	Student shows extensive effort; well- polished, and professional.	Student exhibits satisfactory effort but lacks polish of professional work.	Student shows minimal effort; presents project below their potential.	Student showed little to no effort.	

Note: Assign a '0' or '1' if the work falls below level 2