**Color Blindness: A Creative Exploration Designing for Sight Challenged Individuals**

Kimberley Morelli, Martin Kim, Kendall de Perrier-Lewis  
Kent State University, Kent, OH 44240

**Key Words:** Colorblindness, Sight-loss, Perseverance, Construction

**Introduction:** Our goal is to highlight the advantages of those who are affected by color blindness and who are visually impaired through a print pattern on constructed garments. Our customer is a young adult male that has a colorblind disorder. The customer is one of ten percent of the male population that is colorblind. Our field research consists: of interviewing the customer about living with his disorder, contacting organizations that support people with this color blindness as well as visual impairment, and literature reference. Our garments will consist of a print that accommodates colorblind individuals and also incorporates braille labels. This will be achieved by colors arranged in a particular way in which a colorblind person can associate with and learning elementary braille color vocabulary.

**Overall Objectives:**
Researching color blindness and visual impairment will include:

1. Personal interview with people who are sight challenged by uncovering their needs and accommodations with apparel.
2. Reaching out to the sight challenged community and observing their life experience with sight impairment.
3. Researching literature pertaining to color blindness and sight impairment.
4. Designing a print that will accommodate colorblind individuals: This will require the use of Photoshop and Illustrator.
5. Designing the garment that will be constructed: This will include the use of Illustrator to create technical flats.
6. Making patterns from designs: This will require revisions.
7. Constructing the garment: This will require two muslins with customer fittings and garment revisions.
8. Once the garment is constructed it will be displayed for a university (Kent State Fashion School) event.

**Activity I and II:**
Field research consisted of interviewing our customer. Oleg Bloshenko (our customer) is a twenty-four year old senior mechanical engineering student at the University of Pittsburg. He has the most common form of color blindness: Deuteranopia sight. Growing up, he did not know he was colorblind. At the age of fifteen, he discovered that he was colorblind by taking a color blind test. Activities related to color gives him anxiety such as the act painting. At an internship he found it difficult to identity colored fluids but found a labeling method solution. From the interview our group decided to design a track jacket suit, which is most commonly marketed at young adult males, such as our customer. Other filed research included visiting the Akron Blind Center where executive director Scott Reisberg gave us a tour of the facility. We gained knowledge on how sight impaired individuals’ life experiences and how they cope with their disability. Sewing and knitting was a major activity they accomplished proficiently. Their motto is,
“We can and we will!” Further field research consisted of researching literature. James Dean (manager of mollusions.com) wrote an article called, “Color Adapting, Test”. In the article he illustrates the reverse color bind test, which allows only color blind people to master the test. This is due to the fact that certain color combinations, such as camouflage, cater to color blind persons. For our print research we used Github, a development platform used to create coding which intern helped create our print. The design process was combining our filed research and editing our designs to fit main goals to execute our garment construction; these include: Designing a track jacket that is commonly marketed towards male adults, designing a print pattern that focuses on the reverse color blind test with fabric colors that compliment colors within the pattern, and incorporating braille as color labeling signifiers.

Activity III
Construction of the garments started with pattern making. The patterns were for an ensemble that consisted of a track jacket, jogger trousers, and a pocket for a t-shirt. Fabrics chosen were cotton canvas for the jacket and joggers and lightweight cotton for pocket linings. Also, custom zipper was made with a ring for the pull. From the patterns our group created two muslins. The first muslin critique focused on seam finishing, sleeve adjustments, proportion of joggers, pattern placement, model fitting, and overall construction techniques. The second muslin critique consisted of final sleeve adjustments, rib knit hem length, pocket placement, final model fitting, and finalizing pattern placement. The final ensemble was successful to our initial designs.

Results:
Through our filed research and construction of the garments we successfully completed the project to solve an issue relating to a disability for a client. The knowledge we gained from our interviews gave for a personal connection and empathy with those who are not struggling with sight impairment but are overcoming it. The project gave us knowledge of designing menswear and for client market relations. In conclusion, our group met our goal objects and successfully completed the project for final garment displays. “We can and we will!”