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Color

Winter 2021

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Colorful Classroom

For my final project I decided to merge the theories, tips and tricks about colors that I've learned over the course of this class with my future as an elementary school teacher, and experiment to see what color schemes do and don't belong in a classroom.

I do not have a specific goal in mind as a "point to prove" through my work, I want to explore the relationship between good color theory and good classroom design, and see if there are any good color schemes that ruin or negatively influence a classroom, as well as which color schemes will help a classroom thrive. Bright rainbow is a popular color scheme that I've experienced for most of my school career, and through this project maybe I'll find a pallet that can replace it, a few colors to accent it, or perhaps I'll figure out why rainbow reigns supreme.

I chose this project because today we spend or have spent a substantial chunk of our lives in a classroom setting, and for many people it was or is a negative experience. I can't fix bad teachers and can only do so much to change the school system, but I can use color to share subtle feelings with students and try to make the experience more positive, since—as we've discussing all throughout the course but especially in these last few weeks—different colors have different effects on our psychology and sometimes our physiology.

How I intend to do this is simple. I'm going to take a picture of an elementary classroom from the internet [pictured right] and recolor most of the things inside it according to a couple color theories. I'll explain the theories when I talk about variables, and how I'm going to do the recoloring once I get to methods.



One given—which I will be referring to henceforth as constants, because I can get my brain to stay on track better if I do as such—is the list of items that I will be changing the color of. This group includes: carpets, a teacher chair and what looks to be a reading chair, buckets/clips/writing on a whiteboard, buckets on shelves, folders, buckets on tables, all the decoration on the walls/around the whiteboards, the wall behind the big whiteboard and the flower/tissue paper decoration inside the buckets on the tables. If the wall has been painted once, it stands to reason that I can paint it again. Everything else is an item that I know or am fairly certain that I could buy in a different color, and if I can't there's this wonderful material called spray paint that I can use on many items. Another constant is those elements that I will not be changing the colors of, including: the ceiling, the tan wall that is visible, the floor, and the student chairs. I am operating under the realistic assumption that I cannot customize the entirety of the classroom, and therefore cannot paint all the walls or ceiling to whatever color I please. The floor is a different beast, I'm sure many classrooms have fun patterns in their floor tiles but I grew up with this beige color or carpet and so am going to say that this is a

fairly common floor style and I know tiles are a pain to install so there is a possibility the floor could be another color but to me the chances are slim so I'll reference the basic floor color. I cannot remember having chairs of any color besides dark except when I was in pre-school, and I recognize this blue so I am going to say that spray-painting the chairs is a step too far out of line and keep them this dark, desaturated blue. They will not show up photo-realistic, however, since I started with the idea to color them whatever I please and set up the infrastructure to do so before coming to the realization of "never seen bright chairs outside pre-k."

My main variable is the color of different items within the classroom setting, and to a certain degree the way in which I will apply these colors to their items. I have chosen eight different color pallets—primary rainbow, orange-blue complementary, blue-tan-grey broken hues, greyscale, pastel rainbow, and monochromatic in purple, green and brown—to apply to my picture, and searched the internet for a 5 color example of these schemes. I didn't chose the colors all individually, as I could spend hours testing every tint, tone and hue that I have available thanks to digital color pickers; I also wouldn't have such precise control over the color that tissue paper or folders come in, there's only so many to choose from. I will, however, be choosing a sixth color to apply to the accent wall. Paint offers a chance to be more meticulous about hue and chroma, tint and tone and as such I could get really close to whatever color I mocked up in a digital program. This color will be in theme with the original 5, and serve as a unifier, not the main attraction. I am also going to be choosing where to place each color by hand each time, I will not simply be recoloring the same pattern over and over, so while not a variable I intend to measure, it is a variation.

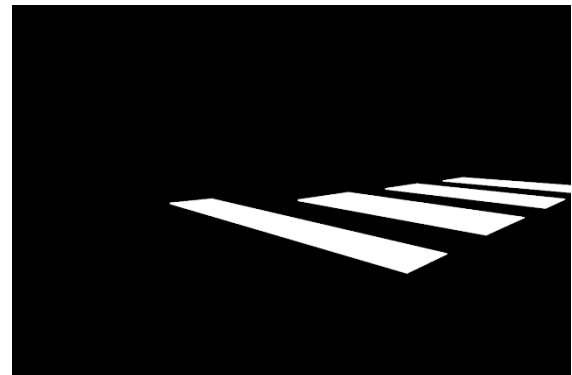
I also have a group of semi-variable elements. I say semi-variable because they will not change with every color scheme, I have assigned them two or three colors and they will not divert from them. This group includes the various shelving units around the picture, and the tops of the student desks. The shelves will be either white, brown, or black, as shelves come in all three of those colors and are all neutral when placed in the right color setting. White will catch your eye within a dark color scheme and black will do the same within a pastel pallet, so to minimize the amount of distraction from the more brightly colored elements I will be choosing whether white, brown or black would be the least eye-catching and use it within that color scheme. The other half of this group is the student desks. Throughout my elementary years I had desks with a fake wood top along the grey plastic shown, and to also minimize distraction I will change their color to better suit the room around them, or have multiple rooms of the same color with different shelves and desktops.

To start my project I first took my original classroom image into GIMP—GNU Image Manipulation Program—and drew over all the items I wanted to change the colors of in white, on separate layers for each different group. [Below]

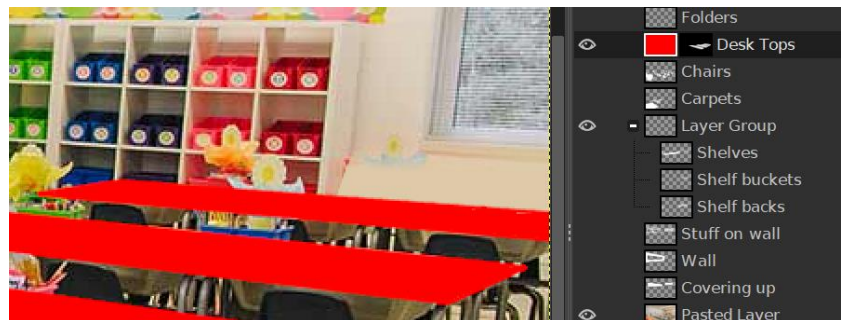




Once I ended up with the white blob I imposed each of these white layers on a black background to make a mask, [right] which after I use some tricks I can make it so the computer will let me draw whatever I want on the layer but only the colors



that show up within the white space will show on the screen, it's taping off the canvas for the digital



world! (See, the whole layer is flooded red, but only the desktops show up as red!) Once I had those done the rest of my process was really just color picking and applying, changing up how I mixed the color distribution and choosing colors for the wall. Once I

finished I ended up with 11 pictures, 7 for 7 color pallets and 4 of the blue-orange complement, I was stuck deciding whether to place the oranges forwards and blues back, or switch it, and whether dark blue or brown was better for the wall, so I made all 4 variations:



Conclusions... ah, well, I enjoyed this project. I didn't go in with a point to prove so I don't have a solid "Yes, I proved this" or "No, I couldn't prove this." I know greyscale doesn't work. I



want to make school more fun and greyscale feels plain



and sterile, like a lab or doctor's which isn't the most fun place for kids. Broken hues are better than monochrome,

but feel very "adult" and boring, they don't catch your attention, you have to focus on them, and focusing in school is already hard enough. Monochrome—in any variation—is a little difficult to look at, and I can imagine that it would be really hard to differentiate each student's property since you'd have to get into names that are very subjective and



I'd bet money that no-one would know what stuff is theirs. Pastel is very pretty, makes



me happy cuz I think of easter and babies, and might serve to calm kids down, but then I worry about the off chance there's a colorblind student, cus pastel is all very similar in tint and tone, you really need the chroma to identify them.

Complementary is the biggest surprise, I don't think I did it justice by splitting the room between orange and blue, but theres a lot of potential there. Colors are easy to differentiate, I can say light/dark of either of them, and they work well intermixed.



Still don't know what I'd paint the wall behind a combination layout, but that's something I can figure out later. I still love primary rainbow the best. That may just be my conditioning; I grew up with it, I'm attached to it, but it works really well. The colors are easy to mix and match, they're bright and eyecatching and its easy to say "my stuff is red" and not get mixed up with your neighbor. Bright rainbow is pretty and works amazing, and I can see why it's many people's go-to.

