
2.1 PRELIMINARY WORK | THESIS BACKGROUND RESEARCH

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GRAPHIC DESIGN FOR HIGH SCHOOL STUDENTS AND THE DESIGN PROCESS

FACT:

Currently there is no emphasis on the importance of teaching graphic design in high schools in America.

PROBLEM:

Most students/people don't understand the design process and how valuable a tool and skillset these skills are for anyone on a professional/personal level.

OUTCOME:

I will use graphic design to inform educators and students of the benefits of graphic design and how these skills could be incorporated into other subject matter and professions.

1. *Design Futures Research*

<https://www.aiga.org/sites/default/files/2021-02/introduction-to-design-futures.pdf>

2. *Graphic Design Curriculum*

<https://www.aiga.org/resources/academic-design-education/graphic-design-curriculum>

3. *What Is Design Process and Why Is It Important?*

<https://www.domestika.org/en/blog/9917-what-is-design-process-and-why-is-it-important>

4. *8 Steps to Implementing Design Thinking in Your Classroom*

<https://www.common sense.org/education/articles/8-steps-to-implementing-design-thinking-in-your-classroom>

5. *The Design Process*

https://www.cosa.k12.or.us/sites/default/files/images/9-12_design_process.pdf

6. *An Introduction to Design Process: creative-and-critical Problem Solving in every area of life*

<https://www.asa3.org/ASA/education/think/intro.htm>

7. *Design Thinking*

<https://www.celt.iastate.edu/instructional-strategies/teaching-strategies/design-thinking/>

8. *Integrating the Arts with Other Subjects*

<https://y4y.ed.gov/toolkits/afterschool/arts/integrating-the-arts-with-other-subjects>

9. *Integrate Visuals and Apply Design Principles*

<https://mytext.cnm.edu/lesson/chapter-7-integrate-visuals-and-apply-design-principles/>

10. *Teaching the Designer of Now: A New Basis for Graphic and Communication Design Education*

<https://www.sciencedirect.com/science/article/pii/S2405872620300265>

11. *IDFK How to Design - an eclectic art fundamentals book!*

<http://www.kickstarteer.com/projects/idfkhowtodesign/idfk-how-to-design-an-eclectic-art-fundamentals-book?>

1. Discusses the growth and decline of graphic design/creative careers. So learning the skills of design and how they can impact other professions is becoming more important. Learn the skills and how they relate to other content area.
2. Nice guide for use with high school students. However, most of my students are just interested in trying out graphic design. What about the students who want to pursue other career paths. How do I make content for them that they can relate back to a subject area they will be pursuing. Or how can it relate to other subject areas, for use in other classes?
3. Speaks with a graphic designer about how using the design process can help you come up with new ideas. Not only just for design, but ideas for any area of exploration. Then discusses different design processes from around the world. Could be interesting to teach design process, and focus more on this to show how it's important in every content area.
4. Encourages deep problem solving with design thinking, in all subject areas. Created a workshop in their class to learn how to do this, started students as young as third grade. Gives instructions on how to teach design thinking in all subject areas. Interesting, could give more specifics for specific subject matter. But very helpful information.
5. Breaks down how to incorporate the design process into math. This is from a school in Oregon. A step by step process that is broken down so that it really could fit any project or subject matter. It even has a rubric.
6. Speaks of the importance of problem solving. Many students today don't understand how to problem solve, I spend most of my day running around helping kids because they pressed the wrong button in Photoshop, can't figure out why their camera is taking dark pictures, etc. Teaching problem solving skills in the form of the design process might make my job much easier. It's an academic journal with some really intricate information, but melding of the design process and how it helps with problem solving abilities is really interesting.
7. Talks about a project based learning module. Which I already teach to, and we are switching to EBR grading which lends itself to project based classroom. Talks about the stages of design thinking Discovery, Ideation, Experimentation, and Evolution to create innovative solutions to vexing problems. In every class project you are solving some sort of problem, teaching them the same skills in order to create cohesion. No two teachers are a like, nor the way they teach, might be beneficial to keep a similar structure for problem solving.
8. Talks about incorporating art into other subject areas, making things for visual for students. Bringing it into core subject areas, which creates new opportunities for learning. Emphasizes problem solving skills. Easier to teach design process when there is a project involved. How do we get kids to care about the projects and learning that are happening?
9. Talks about the importance of communication. With all projects that students will do, they will need to communicate information. Following the design process to create and put together something that communicates properly and effectively is important whether it is for a college application or for a science project.
10. This site has a whole bunch of information. Not just about graphic design, but things students could benefit from knowing. It shows the incorporation of graphic design into other areas and how our ever changing world you need to be very diverse. "The more you know."

TEACHER'S CORNER: A STORY OF DESIGN THINKING IN THE CLASSROOM

INSIGHT 1:

There are quite a few schools who have adapted some form of design skills within their schools. However, it is mostly overseas.

INSIGHT 2:

In the United States this idea of teaching design skills has become popular but, hasn't been used with much success. Shouldn't we be preparing students to solve meaningful challenges and the skills they will need for future jobs? Making the design process a part of every class will help students practice these skills and learn how to use them in all situations within their lives.

TED TALK - TEACHING DESIGN FOR CHANGE AND DOCUMENTARY - IF YOU BUILD IT

INSIGHT 1:

Our education system is broken, there is no pride anymore in education. Shouldn't we be teaching kids the skills to succeed in life.

INSIGHT 2:

The focus in their project was redesigning education, by teaching design within public schools. When you teach design skills you are not only teaching them the skills to create something but, we are teaching them to apply all subject matter in one area. Design is education, because it solves problems for the things that people actually care about.

COLOR AND ITS EFFECTS ON STUDENTS

FACT:

Studies have shown that the use of color in educational spaces can have a calming effect on students; eleviating such things as anxiety and stress.

PROBLEM:

Almost all schools have the same bland color scheme throughout North America, that does not facilitate learning.

OUTCOME:

I will use graphic design to inform school districts about the benefits of adding color into their schools, as well as show them how to create this environment cost effectively.

1. *COLORCOM*
<https://colorcom.com>
2. *Exploring the Impact of Color on Classrooms: Color Experts Perspective*
<https://communities.ppg.com/news/Exploring-the-Impact-of-Color-on-Classrooms-A-Q-A>
3. *The use of Colour in Education Spaces*
<https://blog.interface.com/en-au/colour-in-education-spaces/>
4. *The Psychology of Color: How Do Colors Facilitate Classroom Learning?*
<https://www.grantlersonproductions.com/blog/the-psychology-of-color-how-do-colors-facilitate-classroom-learning>
5. *The Power of Color in a Learning Environment*
<https://norvanivel.com/the-power-of-color-in-a-learning-environment/>
6. *The Psychology of Color: How Do Colors Influence Learning?*
<https://www.shiftelearning.com/blog/how-do-colors-influence-learning>
7. *The Impact of Colors on Learning*
<https://newprairiepress.org/cgi/viewcontent.cgi?article=4001&context=aerc>
8. *Best Colors for Classroom and the Psychology Behind It*
<https://atutor.ca/best-colors-for-classroom/>
9. *Colour in Learning: It's Effect on the Retention Rate of Graduate Students*
<https://files.eric.ed.gov/fulltext/EJ1080132.pdf>
10. *The Effect of Color on Learning: How 4 Different Colors Affect Student Moods and Behaviors*
<https://miencompany.com/the-effect-of-color-on-learning-how-4-different-colors-affect-student-moods-and-behaviors/>
11. *More than Meets The Eye: Integrating Graphics and Curriculum*
<https://www.hollisandmiller.com/insights/integrating-graphics-and-curriculum/>

1. This company consults people on how to use color in their branding, marketing, interior color design, Web, apps, UI, healthcare and pharmaceutical products. They do a lot with interior and exterior color combinations. However, they have done nothing with schools to create a more learning focused atmosphere.
2. Talks about color psychology and its use in the classroom. They really only discuss painted walls. Color in the classroom could be so much more.
3. Discusses how to get children engaged in their learning at a younger age so it continues later on in life. How positive experiences will ignite their passion. Talks about colors that enhance creativity, focus and concentration. Greens and blues are best for this. What about different classrooms and the different experiences you want to have in each. Some might need more calming, some more creativity than others.
4. This article talks about students behavior in the classroom and how colors can have an effect on this. It talks about how information provided in color to students will help them with memory retention. Which is interesting because we are encouraged not to make colored copies of things for the students because of the cost. Switching back and forth from black and white to color is very confusing and worsens their performance. It goes on and talks about holding their attention, children with special needs, and video content in the classroom. What happens when all students are now integrated into all classes. We can't meet the needs of every student.
5. This is a company that specifically works with schools to create a colorful learning environment using paint, flooring/carpets, and furniture. They even sell colorful products. I am guessing this service is expensive, so not everyone will be able to benefit from it.
6. Talks about the colors individually and how they elicit different emotions. Might be interesting if they talked about colors when combining. In a classroom you would need to elicit quite a few different emotions or behavioral outcomes in order to reach all students in a classroom.
7. This is an academic paper written about how colors can impact learners learning by manipulating their cognition and emotions. It discusses the importance of color in instructional materials, and how these materials help with memory retention. From the references page I can see that there has been a lot of research on this topic. Doesn't cover how the environment also plays into the memory recognition.
8. This article discusses how classrooms aren't stark in color anymore, but instead are encouraged to be bright and cheerful. I'm guessing she is a elementary school teacher. We aren't even allowed to paint a wall in our classrooms. There was a whole thing when the librarians wanted to paint the library blue. It says blue and green are the best colors for classrooms. What if each classroom still looks the same after you add color is it still effective?
9. An academic journal that talks about design principles and how they enhance memory performance. It discusses graduate students and their memory retention when using different shapes and color. This is really interesting, they also did some studies and have their results shown which is interesting to see.
10. Written by a psychologist, who discusses how color as an effect on different moods and emotions. Color is only 1 of 6 design aspects that helps with moods and emotions. There's a link to a study with data which is very interesting. This study was conducted in the UK and they experimented with 153 classrooms.

HOW COLOURS CAN AFFECT THE CLASSROOM LEARNING ENVIRONMENT

INSIGHT 1:

Color doesn't just have to be introduced into the classroom with paint. It can be something as simple as carpet tiles, covers for fluorescent lighting, posters, and other colorful furniture. Incorporating color doesn't have to be expensive.

INSIGHT 2:

Although all of the sites and articles I have read state certain colors are used for this or that. None of the articles state specifically for what subject matter or age group certain colors would be good for. When you have a project based class what would be best, etc.? Also in today's world of inclusivity, how does color affect everyone when they are all so different with different needs?

POSITIVE SPACES - THE GARDEN SCHOOL, HACKNEY PROJECT

INSIGHT 1:

They are looking color in their design but, are also working with biophilic design principles which improves human connection to nature. Bringing in colors that are naturally occurring in nature. Which from what I have read greens and blues are the most influential in a classroom setting, which adheres to the idea of biophilic. North Dakota has really long winters people are plagued with seasonal depression. Having some sort of biophilic coloring within our homes might be beneficial to our wellness.

INSIGHT 2:

They talked about natural light and creating seating within the windows so that the students had more interaction with natural light. Majority of our classrooms here have no windows, or sky lights. Fluorescent lighting is all we have in classrooms which isn't very calming, or inviting. Could light be used as well as color or murals of landscapes?

GRAPHIC DESIGN FOR HIGH SCHOOL STUDENTS AND THE DESIGN PROCESS

STATEMENT:

Currently there is no emphasis on the importance of teaching graphic design or the design process in high schools in America. One might come in contact with these skills in an art class but, it really depends on the teacher. Teaching the design process and incorporating it into multiple subject areas by strengthening their problem solving skills and helping them understand how to create content communicates effectively.