BRINGING BACK THUMBNAIL SKETCHING: DESIGN THINKING AND ITS' RELATIONSHIP TO CONCEPT GENERATION IN GRAPHIC DESIGN

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BRINGING BACK THUMBNAIL SKETCHING:
DESIGN THINKING AND ITS’ RELATIONSHIP TO CONCEPT GENERATION IN
GRAPHIC DESIGN

by

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Abstract:

Design thinking has been used in the business world for years, but are there other areas that it could apply and benefit greatly? How about in the graphic design world? The process of creating a design project is starting to be overlooked by many new designers, but this can cause our best ideas to stay hidden in the back of our heads. Perhaps if we took the process of design thinking and applied it to concept generation, we might find ourselves at the root of graphic design: the pen and paper. The expanded literature review and project take a closer look on how design thinking can benefit the world of graphic design.

KEYWORDS: Design thinking, concept generation, graphic design, thumbnail sketching
Dedicated to Aidan, Aria, Averick, Emmalyn, and Shepherd. There is no greater joy than being your aunt.
I would like to acknowledge my parents for paying my way through school, and always being there to support me, as well as my siblings. I would also like to thank Dr. Miller and Professor Weil for helping me through this design process. I will be forever grateful for what you have done to help inspire me.
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Introduction

Graphic Design has been a growing field for many years now as more and more companies need an identity to stay alive, but it has also been a controversial field due to the differences in design concept processes (Wragg & Barnes 1). Designers have related themselves with being problem-solvers, problem identifiers, and thinkers, because of the process it takes to create the perfect design, especially in concept generation. But most outside people do not appreciate or understand how much thinking and processing one design can take in order to achieve the ideal one.

Design thinking is a concept that has been used more widely in business recently, but graphic designers have not quite applied this process. Although most graphic designers’ course of actions do line up with the principles of design thinking, most articles have not referred to the similarities and the advantages of combining these two concepts together such as thumbnail sketching in concept generation. Thumbnail sketching has recently been in contest with computers when it comes to graphic designer’s brainstorming process. Most new designer’s prefer to go straight to the computer when designing rather than starting with sketching. This problem can cause the designer to lack creativity and take less risks in their designs. With this being said, I believe design thinking encourages the sketching and brainstorming process to be one of the main processes in design. This problem led me to ask these questions:

1. What are the typical steps of design thinking and concept generation?
2. How does the design thinking process relate to the process of concept generation?
3. How can design thinking benefit the graphic designer’s process and end products?

Design thinking is a newer concept in not only the business world, but also the design world as well. Concept generation has been referenced in the design process for years but has not
been related to design thinking. In order to evaluate how design thinking impacts the concept generation process, the two terms will need to be evaluated separately first, and then I will discuss the relationship between the two. After the relationship is established, I will examine how this relationship can benefit a graphic designer’s process, specifically the advantages of brainstorming.
Literature Review

What is Design Thinking?

The concept of design thinking has been around for ages but not always under a coined term. Most advocates date the concept back to Herbert Simon, who wrote *The Sciences of the Artificial*. He viewed thinking as a way of analyzing and defined design as “the transformation of existing conditions into preferred ones” (Moutee 30). Peter Rowe has been given the credit for coining the term in his 1987 architecture design book called *Design Thinking*. A commentator on Rowe’s book defined design thinking as a newer way to design, taking actions in which the normal way is challenged by another way of thinking (Rubin 45). It’s hard to define design thinking in one solid definition, but Idris Moutee defines it as “a way to get businesspeople to think like designers and designers to think like businesspeople” (31). He goes on to define it as “the search for a magical balance between business and art, structure and chaos, intuition and logic, concept and execution, playfulness and formality, and control and environment” (32).

Tim Brown is a major advocate for design thinking and CEO of IDEO, a large innovation design company located in California. IDEO has helped many businesses implement design thinking into their day-to-day tasks. The best example Tim Brown gives to explain design thinking is Thomas Edison. Thomas Edison’s methods of innovation helped him overcome failure and press forward to innovate an invention that no one had thought of previously (85-86). Edison created the lightbulb with the intention of creating an invention with the user in mind first (85). One of the main proponents of design thinking that Tim Brown and IDEO advocate for is a user-centered design. In the book *Creative Confidence*, Tom and David Kelley, the founders of IDEO and Stanford’s D.school, state “Being human-centered is at the core of our innovation
process… We aim to understand why people do what they currently do, with the goal of understanding what they might do in the future” (21).

A business organization that develops ideas with a user’s point of view is using the design thinking process (Junginger 63-64). Design thinking became a different way to innovate business strategies and ideas without looking at the numbers and data, but studying the user’s demands. Putting the customer in the spotlight has great potential to raise company profits and over customer satisfaction. Design thinking takes a person’s creative ability and matches it to business strategies to innovate an idea that makes the customer happy (Brown 86).

Tim Brown illustrates how design thinking helped Kaiser Permanente innovate how their nursing-staff shift change to improve their overall patient satisfaction. Kaiser was seeing a problem of how their nurses relayed information to one another throughout a shift change. The first 45 minutes of a shift usually started with a debrief on all the patients, where nurses had to write down notes about each patient. The problem continues when nurses from the first shift would forget to tell second-shift nurses little details that would help second-shift nurses take proper care of the patients. IDEO sat down with the nurse’s and devised a patient-centered solution, where they developed an online universal note system for each patient. No nurse debriefs or patient investigation was needed with the new computer system, which in turn, made the patients more confident in their care (Brown 86-87).

Design thinking can also be defined as a process of problem-solving steps. Problem-solving is a crucial part in the design thinking process, changing the old existing idea into a new and improved idea (Nelson 39). Designers must learn how to deconstruct a problem with the solution always in mind (Meyer 45). Lisa Meyer, an advocate for design thinking and organizational leadership, goes on to mention that design thinkers use a “third way of reasoning”
called abductive reasoning. Contrary to inductive and deductive reasonings, abductive reasoning “uses the logic of conjecture to suggest something that may be.” Meyer suggests that design thinking isn’t focused on the most perfect solution, but it’s focused on the production of finding a solution to a problem (43).

IDEO explains the steps of design thinking as inspiration, synthesis, ideation, and implementation (Kelley, Tom and Kelley, David 22-24). Inspiration drives towards finding a solution by observing the user and approaching the problem in new ways (22). In order to solve a problem properly, the company must first know it’s constraints (budget, resources, timeline, etc.) In the inspiration phase, it is common to establish the problem and develop insights from observation (Brown 89). For example, in order for a company to produce a Super Bowl commercial, they would need to know what their budget is, what their market wants/needs, and how long the commercial can be. Next, synthesis is when a person takes all their observations and research and starts making connections between truths. “We reframe the problem and choose where to focus our energy” (Kelley, Tom and Kelley, David 23). A company starts to organize their information so they can start to brainstorm possible solutions.

This is when ideation takes place. Ideation takes the evaluated problem and begins brainstorming and testing out solutions. The ideation phase can get messy, but the company must brainstorm and start to sketch out possible solutions. Implementation, then, carries out the solutions to the user, and implements the emotional experience (Brown 88-89). The goal is a solution that is best for the business and the user. It is presented to the public as being “emotionally and functionally” appealing. Target is an example of matching great design and function to great price margins, thus, pulling on the heart strings of this generation (92). This example shows of how design thinking plays a big part of today’s business and design world.
Design thinkers are user-centered and problem-solvers, but they are also optimistic and collaborative. They are always optimistic, knowing that there is at minimum one solution that is better than the current system. Working with a team, design thinkers want to challenge the norm and experiment with other solutions, constantly working towards the best for the company and its users. They create solutions with a great empathy of people, but also think analytically by problem-solving (Brown 87). They are “centered on the primacy of creativity and innovation” (Martin 38). Instead of looking at the numbers and quantitative research of strategies, design thinkers create and innovate with the heart, and in turn, create with intuition over reasoning (39). These characteristics make up great design thinkers.

Concept Generation in Graphic Design

A concept can be defined as an idea or an image “which existed, is existing, or might exist in the human mind as well as in the human world” (Taura and Nagai 186). Concept generation, also called brainstorming, is one step in the design process where graphic designers conceptualize new ideas, evolve thoughts, and draw conclusions (Pan et al. 785). This first step in a graphic designer’s process flows with their thoughts, experimenting with potential ideas and solutions, and it is referred to as “one of the most important stages in design” (787). The concept is usually based off of a collection of previous idea(s). A new concept can be brought to one’s mind, but that phenomenon is rare (Taura and Nagai 186).

There are two stages of concept generation: the problem-driven phase and the inner sense-driven phase (Taura and Nagai 186). The problem-driven phase is defined as “the basis of concept generation” (186). It can further be explained as establishing the problem and analyzing it to form solution (186-7). Although it’s important to note that the problem is always an “open” problem, where there is a boundless number of solutions (Laisney & Brandt-Pomares 111).
inner sense-driven stage is the thinking process of a designer using one’s inner sense. Inner sense is broken down into two parts: inner criteria and inner motivation. Inner criteria directs the path of the designer’s concept generation, whereas intrinsic motivation is the satisfaction and passion of designing. Intrinsic motivation is what drives ourselves to do an activity that brings us pleasure. Because a designer has a passion for designing, they will produce more creative work simply because they have the passion to do so. For example, an artist paints a beautiful painting because they have a passion for painting. But if a person who has no desire to paint sits down to paint, their project won’t be as creative, because simply they have no passion for painting. If designers use the analysis of a problem and the composition of a solution simultaneously, they will begin to generate a concept (187). For a visual representation on how inner sense and problem-driven work together, see Appendix A.

Though, design processes for concept generation can look different for every designer. Eric Frances Eshun and K.G. De Graft-Johnson produced a study on their 247 students in Ghana, where they interviewed them about their creative process. 50.2% of them said that a creative process helps in producing creative products, and 70% of them said creativity is a constant ongoing process (94-96). On the other side, the majority of students believed their teachers should teach them a creative process(96). This is important because the creative process proved to be crucial in a designer’s product (95). The conclusion of this study was graphic design students must learn that there is a process to their creativity, that great designs do not just happen to appear (99). Designers learn by doing and watching other designers create (Ellmers 70). Graphic designers’ processes will develop as they design and learn from those designs, as a practice of reflection, which will be further discussed later on.
Now that creative process in concept generation has been defined, how must a designer start concept generation? Ellen Lupton, a well-known artist and writer in the graphic design world, defines brainstorming as an “open-ended search for the initial ideas that helps refine the problem and broaden how one thinks about it” (4). Brainstorming is a way for designers to delineate problems and start mapping out solutions (16). She states there are multiple ways that a designer can brainstorm such as mind mapping, visual research, and thumbnail sketching, but not all designers utilize them (16).

Mind mapping is a way that allows designers to practice mental expression to survey all ideas or things that are related to the designer’s project (22). It is taking one word and expanding on it with all the words related to it on a piece of paper. Ellen Lupton gives four steps to her mind mapping process. The first step is to focus. Write one word on the page that encompasses the problem or project. Secondly, branch out, associate that one word with other words. The third is to organize. Organize your words into different sections with different colors. Lastly, a designer can subdivide, making each branch into smaller sections (23). Mind mapping allows the designer to dump their mind of all the thoughts related to a central concept (Kelley, Tom and Kelley, David 212). The Kelley brothers encourage a designer to make a list of all best answers that were discovered because of mind mapping (215-216).
Visual research is used to evaluate what designs are already out there, and what a designer can do to improve on them. Lupton gives three steps to visual research: Collect, Visualize, and Analyze. Collect means to look at everything that is out there relating to the designer’s project. This can be logos, fonts, or simple designs. Visualize is to make connections between designs to establish what colors, fonts, and ascetics, are used in the project’s area of concentration. Lastly, analyze is to draw conclusions from the findings and make decisions regarding the project (38-39).

Pinterest, a curated image website that allows users to save ideas from others, is a well-known resource for visual research (Kelley, Tom and Kelley, David 76). In an article studying how designer curates images from Pinterest, they state the first step most designers take in visual research:

Designers often collect precedent images, known as existing examples of design, as part of the design process to build their design knowledge, identify patterns and
typologies for future design problems, discover inspiration, and look for points of departure for new innovations (Scolere and Lee Humphreys 2).

From these precedent images, a designer pulls multiple elements from different sources to form a new concept (2). In their interview study, they found that Pinterest is a way for designers to gain new ideas, but also display their ideas for others (5). Designers do not limit themselves to the Pinterest database, but also, search through the internet and pin from there (6). Overall, visual research inspires the creative mind and floods the mind with pieces of designs to form a concept.

Thumbnail sketching, also thought of as visual brain dumping, is a great way to open your mind up to new design concepts and is the traditional way of developing ideas and concepts. It can be seen as doodles that have been scribbled on a piece of paper or more-detailed sketches (Appiah and Cronjé 52). Either way, sketching is basis of all design. People have been sketching since they were children, especially naturally creative people. It’s a basic skill that is often taught first in art class to convey a visual art. Leonardo da Vinci often used sketching to draw out his ideas quickly (Chu et al. 292). This helps the graphic designer produce more free and unique ideas, because they can produce more results quicker, and, as a result, change their way of thinking based on the immediate results.

Sketching requires the hand, eye, and mind all to engage in one action, thus engaging a full range of creative movement (293) Once the preliminary sketches are done, an artist can then draw out more defined sketches of the best ideas (Appiah and Cronjé 52). The main purpose of a thumbnail sketch is to weed through all of the possible solutions and finding the most suitable designs. A designer may go through over 50 sketches before finding one suitable solution. This is important because the first idea may not always be the best idea, but just an average one (53). It allows an artist to bring their thoughts to paper freely and easily (Junginger 60).
Recently, the industry has seen more students taking a sudden turn of skipping the “ole’ pen and paper method,” and going straight to the computer to develop ideas (Appiah and Cronjé 50). The problem found in thumbnail sketching and any brainstorming method is younger designers lack the desire to take the time to do them, since the computer is readily available. They would rather go straight to the computer and design. The advantages of using the computer in the concept generation phase is they give designs a finished look with more details from the beginning. The students claim computers are claimed to make the design process easier (Bulduk 2021). In a study, done by Cape Peninsula University of Technology, they found that most of their students did not enjoy the thumbnail sketching process and felt that it took up too much time, but they also found that their students still developed thumbnail sketches (Appiah and Cronjé 57). Although these students did not enjoy the process, they could not avoid the use of thumbnail sketching.

If computers produce finished results quicker and more refined, then why go through the hassle of thumbnail sketches? Like mentioned before, thumbnail sketching produces more results, thus more solutions to the given problem (Pan et al. 798) Drawing out multiple solutions allows the designer to have different solutions on deck if the initial idea doesn’t work (Souleles 588). Second, the action of drawing out the designer’s ideas on paper gives them a chance to rethink their ideas. Sometimes, ideas in the designer’s head look unexpectedly different on paper (Pan et al. 789). Sketching out ideas with mind mapping or thumbnail sketching, allows the artist to reevaluate the problem (Souleles 589). Lastly, computers offer a product that is too detailed too soon in the design process, which will cause designers to make decisions prematurely and not generate better ideas (Pan et al. 789).
The disadvantages of using pen-and-paper concept generation is that some students do not feel comfortable in their drawing ability. Graphic designers that have entered the field in the last ten years have more confidence in their computer design skills than their drawing skills. The second argument is the computer/i-Pad allowed more options for colors and functions. A person could change the transparencies, colors, and sizes easier than on paper (Souleles 592). Both are effective design processes, but overall, the advantages of sketching are far more beneficial.

**Relation of Design Thinking to the Process of Concept Generation**

As one can see, design thinking and concept generation have strong correlations with each other. Both processes have the intention of solving the problem through creativity and innovation. The only way they don’t correlate is that design thinking is more driven in business realms than graphic design realms. Applying a design thinking mindset to a graphic designer can produce well-generated concept that is the most suitable solution.

Graphic designers usually design with their client in mind first (Wragg and Barnes 2). In a study done on mid-level graphic web designers, a series of designers were interviewed about their intentions in their design projects. The study showed that users were at the center of all their design decisions, “from concept generation that considers choice of aesthetics, language, and tone to the functional behavior and operation of websites” (5). More business owners should start to lean towards design thinking, and hand over the responsibility of problem-solving to the designer.

Looking at the steps of design thinking (inspiration, synthesis, ideation, and implementation), one can see the relations of a creative process of a designer to the design thinking process. In the inspiration phase, a designer pulls ideas from visual research and
observes the problem in mind mapping to see the problem at a bird’s eye view. Synthesis is seen when a designer takes their research and starts picking out the most relevant topics and ideas.

Then, thumbnail sketching plays part in the ideation phase. The ideation phase when applied to concept generation can develop what most designers call the “design eye.” The “design eye” can be described as a designer’s “ability to sort design, good from bad, becoming sensitive to differences: a kind of informed taste” (Nottingham 41). Thumbnail sketching for concept generation is also found to train a designer’s eye, because it describes their thoughts or feelings with a visual representation (Bulduk 2021). A “design eye” can be very helpful in a graphic designer’s career. Designers are able to produce original opinions and thoughts based on their preference in design, and therefore, are able to produce their own aesthetic or niche as a designer, because of their ability to reflect. If reflection does not occur at all during the design thinking process, it can leave the designer without any lessons from their designs or prevent the designer from improving their present design (Ellmers 70).

In the ideation and implementation process, a designer must reflect back on the original ideas after they have tested their prototype even when they are finally working on the computer (Brown 88). Implementation is the designer’s final product. They have reflected back to their research and sketches, and have developed a final product and solution to the problem.

Between the combination of sketching and the reflection process in design thinking and concept generation, one can see the benefits of combing these two concepts. The designer will be able to properly research and evaluate the problem before even trying to think of solutions, which in turn, will stop a designer from making premature decisions in their designs (Pan et al. 789). Secondly, the designer will sketch out multiple solutions to find the best suitable design, and lastly, the designer will learn the practice of reflection. Between all three of these benefits, a
graphic designer has a lot to learn from the concept of design thinking, especially if they are planning to design for businesses. It will enable them to make the most educated design products that could change the course of a business’ profits.
Methodology

This extended literature review and design project is intended to bring light to the advantages of the concept of design thinking combining with concept generation in graphic design. In this next section, I will explain the steps of my design process which utilizes the principles of design thinking. The pretend client I will be working for wants a design for a food truck that brings back childhood memories. I will walk through all of my steps of the design with visual representation.
The Project

This design project will include a business package for a pretend client who has come to me to design a food truck that serves food we ate as a kid, especially the food that we packed in our school lunches such as peanut butter and jelly sandwiches, and juice boxes. The client wants a full design package including logo, truck design, menu design, employee uniforms, business cards, product design, and merchandise.

Starting at the first step of design thinking, I began to define my problem through series of word mapping and visual research. As mentioned in the literature review, word mapping is started with one or a couple of keywords. Sprouting from there, one can write down related words. For this project, I utilized word mapping for the company name and to get a good grasp on the concept. I started with three main words: “Kid-friendly foods,” “Reminiscent,” and “Kid lunch” (See Appendix B). From there, words such as flashback, brown paper bag, PBJ, juice, school bell, and many more inspired me to a couple of different company name ideas. From there, I wrote a few favorite ideas on the side of the paper. The top three were “The Brown Paper Bag,” “The Lunch Sak,” and “The Box,” all playing with the idea of a kid bringing his lunch to school. I didn’t want to quite settle on a final name until I started thumbnail sketching. But before I could hit the paper, I wanted to get an overall idea of what the business should feel like to its customer.

Visual research was key to understanding what I wanted the business to look and feel like. Referring back to my word map, I focused on the section of “reminiscent.” I reflected back on what it was like to be a kid at lunch and the fun aspect of being a kid. Knowing this, I definitely wanted my design to be fun, but look sophisticated enough for an adult to want to go to. With this in mind, I began my visual research on Pinterest (See Appendix C). Researching
subjects such as fun restaurant design, food trucks, bright colors, and mid-century modern, I found myself with a wealth of inspiration for my project.

Closely looking at my inspiration Pinterest board, I pulled out my main inspiration pieces. Almost relating to picking primary and secondary sources for a research paper. Looking at the “Orangen Drink Packaging,” I admired the organic but clean look, the package presented (Fig. 2). The package had a hand drawn pattern of food illustrations in the background surrounding a clean, fun logo. What I find most intriguing about this package is your eye is drawn to the center logo, but I find my eyes wandering to the hand drawn elements. My overall impression of this package is fun and inviting, calling out to its’ user to study its design.


Moving on to my second primary image, I began to look at the clean design found on the “Linda’s Luncheonette Food Truck” (See Fig. 3). My eye is immediately drawn to the clean white logo in the center. The designer decided to use a fun script and modern san serif font
combination, which is fresh and inviting. The choice of bright colors makes the truck pop and stand out. I may consider using a stripe pattern of bright colors for my truck design.

![Food Truck Image](image_url)

Figure 3: “Linda's Luncheonette Food Truck.” *Pinterest,*

Looking at my primary images as a whole, I am leaning towards a circle logo that is organically drawn. I will experiment with other shapes and ideas as the process continues, but it is good to get a clearer direction on my overall design and feel.

Now, it is the time to sketch out some ideas for a logo. As I began sketching, I noticed myself leaning towards the idea of *The Brown Paper Bag,* but I also experimented with the names “The Lunch Sak” and “The Box.” The alignment of the words and the idea of a brown paper bag, flooded me with memories of being a kid. This process could be seen in the synthesis phase, pulling ideas and concepts and start forming ideas. Playing around with different shapes and fonts allowed me to express every idea in my head (See Appendix D & E). When a designer leaves the synthesis phase and transitions into the ideation phase, they can often find themselves stuck on finding the perfect solution right away. Once I let go of the idea of finding the perfect
solution, I found myself starting to freely create and sketch. I began to dump all of my ideas (good and bad) out on paper, starring the ones that I liked the most.

Beginning to enter the ideation phase, I pulled out ideas from the sketches I would like to develop on the computer (See starred sketches on Appendix D & E). Not starting on the computer allowed me to express over 50 ideas in a short amount of time. As stated before, this is one of the main benefits of thumbnail sketching. I was able to break down walls of creativity blocks and develop multiple ideas to clarify my overall vision and design direction. I developed six logos in the computer and began to show them to design mentors and colleagues. Hearing ideas and critiques from other designer’s allowed me to reflect back on my work thus far. This helps define and build my “design eye.” After many corrections and redesigns, I decided on a final logo for “The Brown Paper Bag” (See Fig. 4 below).

Figure 4: “The Brown Paper Bag Logo.”
Now that I have established a logo, I can move on to establishing a color scheme that complements the chosen final logo. After looking back on my mind map and visual research, I begin to see a trend with using the primary colors on the CMYK color scale. CMYK stands for cyan, magenta, yellow, and key (black), and is usually used for printing in the graphic design world. I loved the concept of taking these vibrant primary colors and using shades of them for the business design. Also, I added a brown color that will later be used for a sandwich and paper bag illustration (See Fig. 5 for color scheme).

![Color Swatches](image)

The basics of The Brown Paper Bag business design package have been set and established. From here, I can design a food truck, merchandise, uniforms, juice boxes and all other business design materials. I repeat the thumbnail sketching process with all of the following business design materials: food truck, t-shirts, juice box packaging, business cards, and uniforms. The sketches and final products can be found in Appendix G through Appendix O.

Through the project, I found myself feeling more free to create and experiment. Writing down every idea and drawing them out, I felt a sense of freedom as there were no limits with the brainstorming process. If I had not applied the design thinking principles to my concept generation process, I feel as if I might not have had as great of results. Allowing myself to have freedom within the steps to imagine and create, let me express my inner thoughts and ideas and clear my head even if I may not use all of them. What I’ve learned most in this process is the best ideas are not always the first idea and creativity craves a process. There is no way I could sit down at the computer right away and come up with my best idea ever. I need to express multiple
ideas to clear my head and choose which ideas will work the best. “The Brown Paper Bag” project trained my brain to create in a design thinking process which allows freedom of expression.
Conclusion

Design thinking and concept generation have their obvious relations, but I believe the two really come together in the process of thumbnail sketching. Thumbnail sketching has its strong advantages over computer generation such as the reflection upon generated ideas and the short time between thought and generation on paper. Therefore, I am a strong advocate for thumbnail sketching before designing on the computer in the design process. This produces a more reflected and user-centered approach to your designs, especially for graphic design for businesses. “The Brown Paper Bag” project helped me realize such things.

The disadvantages of this expanded literature review and project are that it was centralized to my project as a designers. It could be studied further by doing a survey of graphic design students or even a larger study of where each student creates their own project, some utilizes design thinking and some not. The advantages are the relation found between design thinking and concept generation birthed a need for thumbnail sketching and a brainstorming process in graphic design.

As spoken before, most new graphic designers disregard the teachings of thumbnail sketching and the process; they would rather design in a computer from the beginning. The major problem with this mindset is they are missing out on such a great opportunity to express freely and clear their head. The design thinking principles give concept generation a new meaning in the design world, and honestly, design thinking should be taught in conjunction with teaching graphic designers to generate a concept. As time goes on, more and more technology will come out to aid graphic designers in their occupation. As much as I believe this technology is a helpful tool, graphic designers should not forget the basics of pen and paper either. It is the ultimate tool that got the field of graphic design to where it is today. Ellen Lupton, one of the main
inspirations behind this thesis and project, once said a quote that I feel summarizes this thesis perfectly, “The design process is a mix of intuitive and deliberate actions” (4).
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APPENDIX D
APPENDIX E
APPENDIX F:
APPENDIX G: Food Truck Sketches
APPENDIX H: Food Truck Final Design
APPENDIX I: Menu Design Sketches
APPENDIX J: Menu Design Final

Other Sandwiches

**BOOM! TOASTED**
A ham and cheddar sandwich thrown on the grill, melting all the cheese, far away from your face line. 5

**CRUNCH TIME**
A turkey and provolone with a crunchy twist, we put potato chips right in the middle. 5

**HULA HOOP**
Pineapple belongs on pizza, but does it belong on a sandwich? Our hawaiian sandwich has ham, swiss, mustard, and big juice slice of pineapple. 7

**SCHOOL BELL**
Remember running to school to make it for the bell? This sandwich is the perfect breakfast on-the-go. Scrambled eggs, bacon, grape jelly squashed between an English muffin. 6

Jellies & Spreads
All jellies are made in house

- Grape Jelly
- Strawberry Jelly
- Apple Jelly
- Honey
- Marshmallow Fluff
- Nutella

**Juice Boxes**
All homemade and 100% juice

**SUMMER VACATION**
The juice reminds us of summer vacations spent on the beach. It has pineapple, orange, and a banana. 3.50

**LEMONADE STAND**
When life gives you lemons, you make limonades, but with peaches. This juice balances sweet and sour for a perfect combination. 3.50

**TEACHER’S APPLE**
Ever give your teacher an apple on her desk? This juice gives your every day apple juice with a strawberry twist. 3.50
APPENDIX K: Juice Box Package Sketches
APPENDIX L: Juice Box Package Final
APPENDIX M: T-Shirt Sketch
APPENDIX N: T-Shirt Merchandise/Uniform Final
APPENDIX O: Other Final Products