

A Slice of Instagram:

A Content Analysis of Cakes Slice Posts on Instagram

AP Research

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**Abstract:**

With the rise of social media, “foodie” culture and “food porn” have skyrocketed in pop culture. The social media platform, Instagram, is greatly responsible for this trend due to its focus on photos. My research investigated Instagram “foodie” culture and social media's influence over the perception of food, specifically cake. It aimed to answer the question “Which visual aspects of a popular cake slice post make the photo more or less appetizing to Instagram ‘foodies’ in early 2020?” To do this, I analyzed popular cake slice posts through the #cakeslice page on Instagram. I categorized the visual characteristics of the cake and photograph. After analyzing it alongside various measurements of appetizingness, I concluded that the most appetizing cake slice posts to Instagram “foodies” are chocolate and follow the themes of luxury and indulgence. However, for many visual aspects there was not enough evidence to claim that they influence the perception of the post. The results of this study gives insight to how society treats food online and how social media can be used as a marketing tool for the food industry. It can also guide bakeries on how to make their Instagram posts more appetizing to potential customers.

## **Introduction:**

My research project aims to answer the question “Which visual aspects of a popular cake slice post makes the photo more or less appetizing to Instagram ‘foodies’ in early 2020?” Many choices go into taking a food picture such as, the appearance of the food itself and how it is plated and photographed. To analyze these features, I will perform a content analysis, categorizing the visual characteristics (V.C.s) and analyzing them alongside measurements of “appetizingness”. “Appetizingness” reflects how well the post inflicts hunger in the viewer. In this study, appetizing and appealing are not one in the same. While the first reflects the desire to eat something based on one’s senses, the second does not involve hunger. The viewers in this case are “Instagram foodies.” or someone who interacts with food posts on Instagram. They may be a content creator or simply a viewer. For this study we are only analyzing popular cake slice posts (P.C.S.P). These are food posts that meet pre established criteria, specified later, and are not posted by personal accounts. Furthermore, I am only analyzing traditional cakes which I define as baked sponges accompanied by some kind of icing/frosting. Cheese cake, and potato cakes are not included in this study.

I aim to explain how the presentation of food can have an affect on how people perceive it online. I hypothesize that the most appetizing cake slice posts will follow one of two extremes, minimalist and plain or extravagant and over the top. Additionally, I hypothesized that the characteristics which influence appetizingness most, are those that affect how the cake tastes such as flavor and the ratio of cake to filling.

## **Significance**

“Foodie culture” has grown greatly with the popularity of instagram. As a result, social media (S.M.) has greatly transformed the food industry as well as many others, becoming the most efficient way to reach the younger audiences. Thus, it is important to understand how S.M. can change one’s perspective.

My research can not only aid bakeries in advertising their cakes better, but can help other parts of the food industry advertise their products more efficiently to the younger demographic. Research demonstrating the effectiveness of S.M. advertisements based on other post components have already been done. The ice cream chain, Hokey Pokey, started advertising over S.M. for a study and saw “a positive sales lift in almost all the months during the campaign.”<sup>1</sup> Similarly, a study on carbonated soft drinks evaluated the effect of word of mouth on S.M. and showed that “ a successful social media campaign will increase the exposure and awareness of a brand and create more buzz on social media sites, which will lead to a greater probability of a

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<sup>1</sup> Kumar et al, “Creating a Measurable Social Media Marketing Strategy: Increasing the value and ROI of Intangibles and Tangibles for Hokey Pokey,” *Inform*s 32, no.2 (2013): 208, <https://www.jstor.org/stable/24544940>. Accessed 15 Jan. 2020.

product being chosen by consumers.”<sup>2</sup> These studies and my own can demonstrate that a healthy understanding of S.M. and its users can increase profit for food businesses.

### **Literature Review:**

#### **“Foodie Culture”:**

With the rise of S.M., foodie culture has gradually risen over recent years and food’s presentation online has redefined how we look at food. Writer at *Gastronomica*, Sara McGuire, believes “the saying ‘we eat with our eyes’ rings truer than ever in the age of information,”<sup>3</sup> leading to an important term in “foodie culture” today, “Food Porn.” The term was coined by Micheal Jacobson “to connote a food that was so sensationally out of bounds of what food should be that it deserved to be considered pornographic.”<sup>4</sup> The term has since sexualized the idea of food. Many experts in the restaurant industry are against the notion of food porn claiming that the eye-catching nature will cause food to lose its meaning<sup>5</sup>. From the consumer side of Food Porn, the internet trend’s popularity may be boiled down to its science. In a report from *Brain Research*, researchers establish that the presentation of food images triggers a response in the reward center of the brain.<sup>6</sup> In contrast, Signe Rousseau takes a more social approach to “foodie culture” and explores the structure of S.M., specifically Twitter, that fosters a healthy environment in her book *You Are What You Tweet*. She contributes its success to the capability of the content creators interacting with the consumers<sup>7</sup>. Ryan S Eanes identifies a pitfall in Rousseau’s book explaining that it “fails to consider Instagram entirely which is arguably the most important social media ‘apps’ used to share photos of food.”<sup>8</sup> So by studying Instagram I am studying what Rousseau and other food authors failed to do and filling this gap in the conversation surrounding food online.

#### **Plating and Photography:**

The success of food porn does not solely rely on the food itself, but also the way it is plated and photographed. In “Looks Good Enough to Eat” researchers presented food pictures of various platings to participants of three nationalities who would then choose which was most

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<sup>2</sup> Yizao Liu and Rigoberto A. Lopez, “The Impact of Social Media Conversations on Consumer Brand Choices,” *Marketing Letters*, vol. 27, no. 1 (2016):11, [www.jstor.org/stable/26177931](http://www.jstor.org/stable/26177931).

<sup>3</sup> Sara McGuire, “Food Photo Frenzy: Inside the Instagram Craze and Travel Trend.” *buisness.com*, <https://www.business.com/articles/food-photo-frenzy-inside-the-instagram-craze-and-travel-trend/>.

<sup>4</sup> Anne E McBride, “Food Porn,” *Gastronomica*, Vol. 10, no. 1 (2010): 33-46, <https://www.jstor.org/stable/10.1525/gfc.2010.10.1.38>.

<sup>5</sup> McBride, “Food Porn,”: 38-41

<sup>6</sup> Frank et al, "Processing of Food Pictures: Influence of Hunger, Gender and Calorie Content.(Report)." *Brain Research* 1350 (2010): 159-60, [https://arizona-primo.hosted.exlibrisgroup.com/permalink/f/1h28lag/TN\\_gale\\_ofa235303125](https://arizona-primo.hosted.exlibrisgroup.com/permalink/f/1h28lag/TN_gale_ofa235303125)

<sup>7</sup> Ryan S. Eanes, “ Books in Review: Food and Social Media: You Are What You Tweet,” *Gastronomica*, Vol. 14, No. 4 (2014): 86-93, <https://www.jstor.org/stable/10.1525/gfc.2014.14.4.86>.

<sup>8</sup> Eanes, “ Food and Social Media: You Are What You Tweet,”:87

aesthetically pleasing. They found that “across six visual dimensions of food there was a consistent preference for the number of colors on a plate (three), components on a plate (three to four) and the fill level of the plate”<sup>9</sup>. Using a similar method, Austin Jacobs at the University of San Diego, analyzed the impact of photo angle on the perception of food. Unlike the previous study, Jacobs narrowed his focus to one visual component and was able to differentiate the participant’s reaction to the food picture as tasty or aesthetically pleasing. He found that side angle photos were tastier and more aesthetically pleasing than overhead shots. Additionally, Jacobs’ study occurred in 2017 and he investigated food perception on print vs Instagram to advise bakeries marketing strategies. He suggests when advertising on Instagram use side angles and the opposite for magazines.<sup>10</sup> Both researchers presented participants with food pictures and recorded their response with surveys. My research differs in that I recorded viewers’ responses based on likes and comments. While my research will less accurately measure responses, it avoids volunteer bias and studies a wider population. My research also builds upon their method by analyzing a larger range of visual aspects regarding both the food itself and the way it is plated and photographed. Additionally, with my research taking place during the rise of S.M. like Jacobs’, I am focusing strictly on Instagram food pictures.

### Social Media and Marketing

Research methods that more closely resemble my own have been conducted about food marketing on Instagram. The studies of Hokey Pokey and soft drink companies previously mentioned, claim S.M. is an efficient marketing tool for the food industries<sup>11 12</sup>, other researchers attempt to explain why. To do this they looked at S.M. through different lenses. By looking at S.M. as a vehicle for ads, the article, “Junk Food Marketing on Instagram: Content Analysis” discovered companies use S.M. to target specific audiences and market individual’s interests and that they companies can condition young minds to incorporate their products into their diet through constant exposure<sup>13</sup>. By looking at S.M. as a “pre-crisis monitoring tool”, authors of “From #mcdonaldfail to #dominossucks: An analysis of Instagram images about the 10 largest fast-food companies” suggests that Instagram can be used to identify and solve problems arising in the food industry such as a poor working environment, problematic customer service or questionable food practice.<sup>14</sup> Thus attributing Instagram’s power to its accessibility to businesses,

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<sup>9</sup> Francesca Zampollo et al, “Looks Good Enough to Eat: How Food Plating Preferences Differ Across Cultures and Continents,” *Cross Cultural Research* 46, (2012): 31-46, [https://www.researchgate.net/publication/227343992\\_Looks\\_Good\\_Enough\\_to\\_Eat\\_How\\_Food\\_Plating\\_Preferences\\_Differ\\_Across\\_Cultures\\_and\\_Continents](https://www.researchgate.net/publication/227343992_Looks_Good_Enough_to_Eat_How_Food_Plating_Preferences_Differ_Across_Cultures_and_Continents).

<sup>10</sup> Austin Bradley Jacobs, “Impact of Photo Angle on Food Perceptions and Evaluation,” *University of San Diego*, (2017), [https://digital.sandiego.edu/cgi/viewcontent.cgi?article=1042&context=honors\\_theses](https://digital.sandiego.edu/cgi/viewcontent.cgi?article=1042&context=honors_theses).

<sup>11</sup> Yizao Liu and Rigoberto A. Lopez, “The Impact of Social Media Conversations on Consumer Brand Choices,”:11

<sup>12</sup> Kumar et al, “Creating a Measurable Social Media,”: 208,

<sup>13</sup> Amy Vallaso et al, “Junk Food Marketing on Instagram Content Analysis,” *JMIR Public Health Surveill*, vol. 4, no. 2, (2018): E54. <https://publichealth.jmir.org/2018/2/e54/>.

<sup>14</sup> Jeanine Guidry et al. “From #mcdonaldfail to #dominossucks: An analysis of Instagram images about the 10 largest fast food companies,” *Researchgate*, accessed March 17, 2020,

employees, and customers. While the first focused on how the product was marketed, the second called attention to the reputation of the company. My own research aims to achieve the same goal of explaining the marketing power of Instagram. While these researchers used an analysis of target audiences and producer-consumer relations, my research investigates the visual content to explain this phenomenon.

## **Method:**

### Overview:

There are four main steps in my method: 1) collect popular cake slice posts, PCSPs, from the #cakeslice page, 2) categorize and record the V.C.s of the post, 3) record data measuring the “appetizingness” of the post from the likes, comments, and account details, and 4) analyze the data for correlations between V.C.s in (2) and measures of “appetizingness”.

### Sampling:

In this study, I analyzed 100 cake slice posts, collected from the #cakeslice page. I did not aim for a sample of 100 posts, rather it was the number of posts from the #cakeslice page, posted in the period from January 1st to March 5th and satisfied my conditions for a PCSP. I chose to collect my sample from the #cakeslice page, because it would result in a representative sample of all PCSPs on Instagram in early 2020. The hashtag page should create a representative sample because food accounts would tag their posts to widen their reach. #cakeslice would be the simplest and most common tag. Additionally both large and small accounts use hashtags. Moreover, english is the most prevalent language on instagram, so foreign posts should appear on the page as well. This method of sampling most closely resembles that of the study “From #mcdonaldfail to #dominosucks”, where researchers also used the tag pages to collect posts to analyze<sup>15</sup>. However, while these researchers use multiple tags to analyze multiple companies, I used one. A large majority of the results for the tag #cakeslice could not be analyzed because they were irrelevant, not popular enough, from personal accounts, or did not satisfy my conditions. Also, by sampling from the tag page, I am filtering out posts from personal accounts, because they often don’t use tags.

The conditions for a post to qualify as a PCSP are as follows: First, the post must include a cake slice, which I define as a portion no more than a quarter of the whole cake that has been removed from the original cake. More than one slice is allowed in the picture, but each slice must be identical. Second, there must be a clear view of the cake slice, which I consider to be true if all layers of the cake are visible. A few bites may be taken from the slice, but the majority of the slice should be intact. Third, The cake slice needs to be the focal point of the photo. A focal point is defined by Cambridge Dictionary as “the feature of a work of art that is the most

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<sup>15</sup> Jeanine Guidry et al. “From #mcdonaldfail to #dominosucks.”

interesting or important or the most strongly emphasized.”<sup>16</sup> Fourth, the photo may not include a person’s face. This would affect the rationale behind liking the post. Fifth, a post must be at least 1 week old before it is analyzed. After that point the like count usually plateaus. Sixth, the post must reach a popularity threshold by having at least 100 likes and the account must have at least 800 followers. I chose these numbers because I noticed that cake slice posts with more than 100 likes often originated from food accounts. If I had increased the minimum like count, it would have greatly decreased the number of posts I could analyze in the weeks from which I recorded data. I could have increased my time frame, but that could have led to inconclusive results since trends can change quickly online. A follower count greater than 800 ensures that people of the general public also see and have the opportunity to like the post, not just close friends of the account holder. These conditions guarantee that viewers are liking and commenting on the post because of the photo and cake slice, not from external factors. As a result, the data will more accurately show evidence of appetizingness.

#### Categorizing Visual Characteristics:

After I establish that a post satisfies these conditions I record their V.C. This part of my method is similar to that of the study “Junk Food Marketing on Instagram”. The researcher also categorized their Instagram posts and looked for correlations between their categories and data about how the consumers reacted. However, they categorize their posts by marketing strategy while I analyze the visual aspect of the photo.<sup>17</sup>

For the coding process, I used google forms as a tool to collect and organize data. I first collect information for identification. I then performed a qualitative analysis of the V.C.s for the post. This included categorizing each V.C. of the post. I analyzed characteristics of the slice itself and how it is presented. The characteristics of the cake I chose to analyze are: number of cake layers, ration between filling and cake, flavor of the sponge, type of filling, extra components in the cake, external cover, color theme and cake aesthetic. V.C.s that pertain to how the cake is styled and photographed are: cake stance, cake face closest to viewer, slice shape, background, plate, angle of shot, bite, presence of utensils, other decor on plate, full cake in background and slice size. The V.C.s’ definitions, categories and examples are provided in table 1 and 2 of the appendix. Table 1 refers to characteristics of the cake itself and table 2 refers to the plating and photographic choices in the photo. All example photos provided were posts analyzed in the study.

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<sup>16</sup> *Cambridge Dictionary*, s.v. “Focal Point,” accessed Mar. 16, 2020, <https://dictionary.cambridge.org/us/dictionary/english/focal-point>.

<sup>17</sup> Amy Vallaso et al, “Junk Food Marketing on Instagram”

### Gathering “appetizingness” data:

After I recorded which categories a cake slice fell into for each V.C, I recorded data about the post’s perceived “appetizingness” from the likes and comments. First I record the like count. There are multiple reasons to like a post. The two main reasons to like food posts are 1)to support the content creator and 2)because you find the post appealing/ appetizing. By looking at posts from accounts that revolve around food and do not have a visual persona, I am minimizing the amount of likes that stem from reason #1. Thus one can assume that the majority of users liked the post because they found the food photographed, appealing/appetizing. Therefore you can use likes as a measurement for how appetizing the instagram masses find a plate. I used a like to follower ratio in my calculation so that it was reflective of the proportion of people who liked the post out of the amount of people who it was shown to.

$$\textit{like to follower ratio} = \textit{like count} \div \textit{follower count}$$

The pictures posted by larger accounts automatically obtain more likes simply because it was shown to more people. Thus I am accounting for the disparity between larger and smaller food accounts using a ratio.

Second, I record the comment count and the amount of signal words in the comment section. The signal words suggest that the commenter finds the picture appetizing. These are words and emojis that are connected to taste not just looks. A list of signal words and emojis are as follow: yum, 😊, treat, delicious, sinful, heavenly, divine, taste, tasty, nom, devour, eat, drooling/ salivate/ salivating/ watering, scrumptious, 🍷, craving and mmm(with 3 or more m’s). Other variations, abbreviations, and spellings of these words were included. Words with biblical origin were included, because of their connection to gluttony. Verbs like taste and eat were included because they were almost always followed by synonyms of “good” and thus displayed a desire to eat the cake pictured. The reason I excluded words such as “good” from the list is because I would not be able to differentiate between “looks good”, which signals visual appeal, and “tastes good”, which connotes appetizingness. For convenience, I used the text analyzer from online-utility.org.<sup>18</sup> The signal count is the number of signal words in the comments. I manipulated the data in a similar fashion using signal word frequency:

$$\textit{signal word frequency} = \textit{signal word count} \div \textit{number of comments}$$

This equation only accounts for the people that see and care to comment on this post, thus eliminating the problem that accounts that have more exposure will automatically have a higher frequency of signal words regardless of what kind of cake is pictured. Combining the comment and like measurement creates the “Total Appetizing Measurement,” (TAM):

$$\textit{Total measurement of appetizingness} = \textit{signal word frequency} + \textit{like to follower ratio}$$

This measurement should be small and was designed to measure how appetizing the viewers of the post, found the cake slice pictured, based on all the information given. Equal priority was given to the signal word score and like measurement, because although the signal word score is a

<sup>18</sup> Text Analyzer, online-utility.org, <https://www.online-utility.org/text/analyzer.jsp> .

better indicator of “appetizingness” it is less accurate, due to the small proportion of commenters. In contrast, a higher proportion of viewers like the post than comment on it, so one like is less impactful than one comment.

These measurements of appetizingness were then analyzed along the V.C.s of the post to find correlations.

### **Data & Analysis:**

#### **Statistical Test:**

To assess whether a specific V.C had an influence over how appetizing the picture was overall, I calculated the average TAM for every category of each characteristic. I then compared that category’s average to the average TAM for the entire sample, 0.2781, using a one-sample t-test. I am using this test to determine if the mean from one category is statistically different from the mean of the entire sample. This would answer the question “does the presence of a chocolate sponge make the post more or less appetizing?” To further investigate, I used a pair t-test to determine if there was a statistically significant difference between categories of the same characteristic. I chose to use a paired t-test instead of the two-sample t-test because the variables are not independent of each other. I compared the category with the highest average TAM to the rest, excluding the categories such as other and multiple. This would answer questions such as “are cakes with chocolate sponge more appetizing than those with vanilla?” What determines if there is a statistical difference is the p value given from both tests. The p value is the probability that the difference seen between the two means is due to random variations in the sample. Traditionally when p is less than 0.05 the difference is statistically significant. For this study, a small p value indicates the category is more or less appetizing than what it is being compared to.

For both tests there are 3 conditions that the sample must uphold. First the data must be randomly sampled from the population. The population is all PCSPs on Instagram posted during early 2020. Not every PCSP will be tagged with #cakeslice, but there is no variable that would dictate if the creator tagged the post or not. Thus by sourcing the sample from this page, I am collecting a random sample of the population. Second the sample must be less than 10% of the entire population. I believe that with the popularity of food porn and the large scope of Instagram, it is reasonable to assume there are more than one thousand cake PCSPs posted on Instagram during the research period and thus my sample of one hundred posts is less than ten percent of the population. Third the data must be normally distributed.

The histogram below describes the distribution of the sample's T.A.M scores:

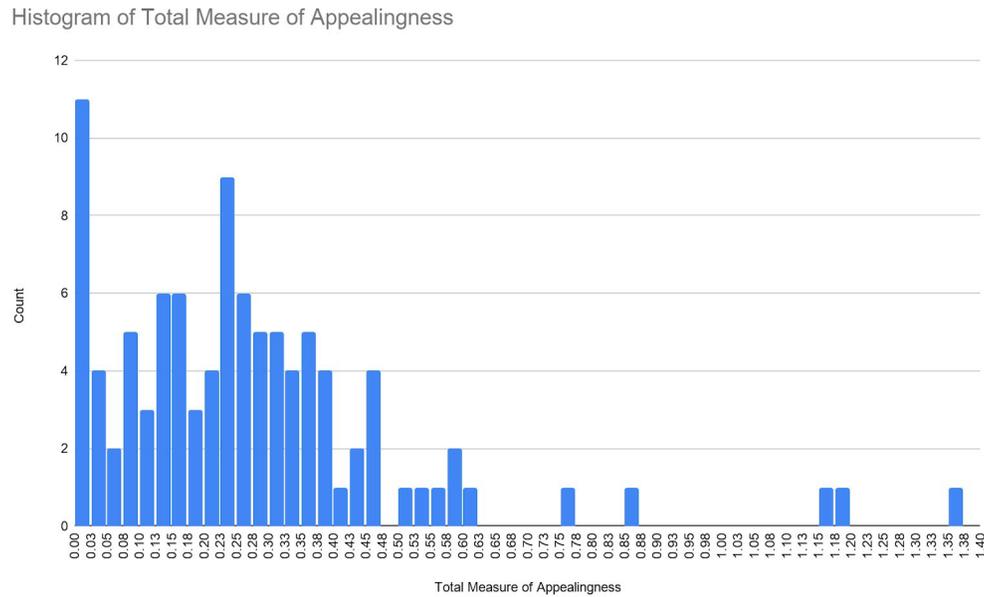


Figure 1: Histogram of sample's T.A.M

It is clear that the data does not have the perfect bell shape due to the outliers and peak in the first bucket with T.A.M.s from 0 to 0.05. I believe this is due to the way posts with Instagram's structure. A post's popularity will snowball. After people like a post rapidly, it will trend, causing Instagram to show the post to more people and exponentially increase the likes and comments resulting in the outliers to the left. This algorithm also makes it difficult, but not impossible, for posts from small accounts to trend and achieve a higher T.A.M. score. Due to this phenomenon I am choosing to continue with these tests despite the data not fitting all of the conditions.

### Results:

In the tables following is the data and calculations made from the sample collected. The calculations shown include: frequency of each category, average TAM, standard deviation of the category, S.D., and the p-value found from the one sample t- test and the paired t test. After each table is an interpretation of the data.

Table 3: Visual Characteristic: Number of Cake Layers					
Categories	Frequency	Average TAM	SD	1 sample t-test	Paired t-test
1	0.1	0.2029	0.1409	0.1262	0.135
2	0.18	0.3786	0.315	0.1939	0.346
3	0.46	0.2089	0.1415406887	0.0018	0.0001
4	0.19	0.3281	0.2669	0.4236	0.1564
5	0	----	---	---	---
6+	0.07	0.5211	0.3771	0.139	Compared to

Almost half the cakes had 3 layers. However, cakes with 6 or more layers had the highest average TAM. There were no P.C.S.P.s with 5 layers. None of the categories had a statistically significant difference with the whole sample's average T.A.M. Initially, that suggested the number of cake layers does not influence the "appetizingness" of the cake, but the the p value of the paired t test between 6+ and 3 layers is 0.0001, statistically significant. Thus, this data suggests that viewers find cake slices with 6+ layers more appetizing than those with 3 layers, but not much else. That is due to the large standard deviations in reference to the average TAMs. The TAMs are varying greatly within each category suggesting that the V.C. is not of great influence.

Table 4: Visual Characteristic: External Cover					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Buttercream etc.	0.91	0.2601	0.2204	0.4377	0.0917
Ganache	0.05	0.5197	0.4899	0.3319	Compared to
None	0.03	0.3827	0.2072	0.4739	0.669
Other	0.01	0.3952	n/a	n/a	---

Most cakes were covered with buttercream. Ganache had the highest average TAM, and there is a statistically significant difference between buttercream and ganache, suggesting that viewers find ganache more appetizing than buttercream.

Table 5: Visual Characteristic: Cake Flavor					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Vanilla etc.	0.39	0.2600	0.1607	0.4879	0.0922
Chocolate	0.29	0.3611	0.3196	0.1726	Compared against
Red Velvet	0.06	0.1165	0.3637	0.3264	0.1046
Other	0.15	0.2331	0.1419	0.2403	---
Multiple	0.11	0.2723	0.1903	0.2204	---

Although none of the tests suggest statistical significance under conventional standards, the p value of the paired t-test between vanilla and chocolate and red velvet and chocolate are quite low, suggesting that viewers may have some preference to chocolate over vanilla and red velvet. Due to the small sample in respect to the population and large SDs, I argue that these slightly larger p-values can suggest significance.

Table 6: Visual Characteristic: Cake Filling					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Buttercream etc.	0.79	0.2562	0.2277	0.3959	0.1254
Buttercream & Jam	0.1	0.3716	0.1693	0.1142	compared against
Buttercream & Caramel	0.03	0.1718	0.177	0.4077	0.1029
Buttercream & Other	0.02	0.3056	0.1281	0.8118	---
Other	0.06	0.4539	0.4609	0.393	---

Almost all posts had cakes filled with buttercream etc and 6 posts had an accompanying filling. Buttercream and jam had the highest average TAM and it had a low p value for the one sample t-test, weakly suggesting a buttercream and jam filling makes a slice more appetizing. There is a low p-value from the paired t test between the buttercream combination with jam and caramel, possibly indicating a viewer preference for jam over caramel.

Table 7: Visual Characteristic: Cake Aesthetic					
Categories	Frequency	Average TAM	SD	1 sample t-test	Paired t-test
Minimalist	0.19	0.2416	0.2488	0.5309	0.139
Rustic	0.23	0.3379	0.1517	0.0719	0.3096
Extravagant	0.09	0.414	0.4002	0.3381	0.8849
Luxurious	0.08	0.4436	0.4296	0.3118	compared against
Classic	0.24	0.1798	0.1343	0.001583	0.0111
Themed	0.07	0.2099	0.1786	0.3521	0.2043
Elegant	0.1	0.2383	0.1543	0.4370	0.1776

Luxurious cakes have the highest average TAM. The one sample t-test suggests that consumers find rustic and classic cakes less appetizing than the average cake. Similarly, the paired t-test indicates that viewers find luxurious cakes more appetizing than classic cakes.

Table 8: Visual Characteristic: Cake Face Closest to Viewer					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Cutside	0.56	0.2803	0.259	0.9477	0.9996
Exterior	0.03	0.1423	0.0638	0.0664	0.4569
Top	0.12	0.2804	0.3021	0.9792	compared to
Point	0.05	0.2627	0.201	0.8725	0.9067
Combination	0.24	0.2918	0.1938	0.7324	---

The cut side most commonly faced viewer. The one sample t-test for the exterior side, suggests that viewers find cakes with the outside facing them, less appetizing than the average cake.

Table 10: Visual Characteristic: Cake Slice Shape					
Categories	Frequency	Average TAM	SD	1 sample t-test	Paired t-test
Pie	0.74	0.290838277	0.259007	0.672674	0.3756
Rectangular	0.26	0.2417143813	0.18394	0.323244	Compared to

Although cakes sliced pie style were more common and had a higher average TAM, there was so much variance within the category that the tests do not suggest that viewers find pie style slices more appetizing than rectangular slices.

Table 11: Visual Characteristic: Plate					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Plain	0.67	0.2863	0.2774	0.8089	0.4076
Decorative	0.26	0.2426	0.1382	0.2028	0.0196
Other	0.01	0.026	n/a	n/a	---
None	0.06	0.3819	0.1159	0.0797	compared to

Plain plates were the most common, while posts with no plates had the highest average TAM. The paired t test revealed viewers find a post with no plate more appetizing than a decorative plate.

Table 12: Visual Characteristic: Presence of a Utensil					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Yes	0.33	0.2205	0.1645	0.062	0.0957
No	0.67	0.3064	0.2692	0.3918	compared to

Posts without utensils pictured were more common and have a higher average TAM. Additionally the tests suggest that a utensil can make a post less appetizing

Table 13: Visual Characteristic: Full Cake in Background					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Yes	0.24	0.2004	0.1461	0.0159	0.0694
No	0.76	0.3026	0.2593	0.4124	compared to

Most PCSPs from the #cakeslice did not have the full cake pictured, but the tests suggest that a full cake in the background will make the post less appetizing.

Table 14: Visual Characteristic: Cake Size					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
small	0.29	0.2571	0.1879	0.5521	0.6647
regular	0.54	0.285	0.2615	0.0846	0.9427
large	0.17	0.2919	0.2691	0.8345	compared to

There appears to be a positive relationship between size and appetizingness, because as size increases so does the average TAM. The one sample t-test supports this, because it's low p-value indicates viewers find regular sized slices more appetizing than the average cake slice, which is between small and regular.

For eight visual characteristics I did not find evidence of an influence over a post's appetizingness. These characteristics include: extra components in the cake, ratio between icing and sponge, color palette, cake stance, background, angle of the shot, whether the cake is complete, and extra decor on the plate. The data tables for these characteristics are listed in the appendix (tables 15-22). The p-values of all the tests conducted for these characteristics are below 0.1 and show no statistical differences between means.

### **Conclusion:**

The results of the nineteen V.C.s analyzed can be explained and categorized into six overarching trends. First, it appears that in the foodie realm the expression "more is more" rings true. Viewers find cakes with six or more layers more appetizing than those with only three layers. Similarly larger cakes are more appetizing than smaller ones. Second, evidence suggests that chocolate is the most appetizing flavor. Ganache appeals to the audience more than buttercream alone and chocolate sponge is more appetizing to the viewers than vanilla and red velvet. Third, the most appetizing aesthetic is luxurious. This harmonizes with the previous trend. Larger proportions, lots of layers, and chocolate have connotations of luxury and indulgence. The data also suggest that rustic and classic cakes are less appetizing. Fourth, when the exterior of the cake slice is facing the camera, the consumers find the cake less appetizing. Similarly, the same occurs when the full cake is also pictured. This is to be expected, because the cake's exterior can be seen as decoration, while the interior is what's eaten. Fifth, slicing cakes the traditional pie style is more appetizing than a rectangular slice. Rectangular slices are a newer trend and often fit the minimalist aesthetic, which had a below average T.A.M. score. Sixth, all focus should be on the cake slice itself. Slices are less appetizing when they are on a decorative plate, because they pull attention away from the cake. Additionally, utensils in the shot also make the cake less appetizing. I initially thought a fork would be inviting to the viewer, but forks pictured are often metallic and flashy thus pulling attention away from the cake. Similarly, characteristics of the post that do not affect the taste of the slice have no or a negative influence over the post's appetizingness. This accounts for some of the characteristics whose data showed no evidence of influence. Six out of the eight (color palette, cake stance, background, angle of shot, completeness and extra decor) do not affect the taste of the cake. Therefore, the data suggests that when an Instagram foodie becomes hungry from a post, that reaction is mainly caused by aspects of the slice itself.

In total, an appetizing cake slice post in 2020 is luxurious while focusing on the slice itself, which is exactly what the post with the highest T.A.M. did:



This post had a TAM of 1.3559. The cake itself is chocolate, large, and appears luxurious and indulgent. Additionally, all focus is on the cake itself. This post strengthens my conclusions, because almost all the trends the data pointed to early are combined into this one very popular and seemingly appetizing post.

Initially I hypothesized that the most appetizing cake would be one of two extremes, modern and minimalist or extravagant. While foodies do not appreciate a modern take on cake slices, the evidence suggests that they find extravagant and luxurious cakes the most appetizing. I also hypothesized that the characteristics that affect the taste of the cake will have the most influence over how appetizing the cake appears. This appears to be accurate, because six out of the eight characteristics that had no influence over the appetizingness of the slice pertained to the styling and plating of the cake. Additionally, in his paper “The Impact of Photo Angle on Food Perceptions and Evaluations”, Austin Jacobs found that on Instagram, viewers find a side angle shot more appetizing than an overhead one, while I found no relationship between photo angle and appetizingness. However, Jacobs suggests that overhead angles were more trendy so viewer preference could have leaned that way in the three years between Jacobs’ research and my own.

There are few ethical considerations for this project. However, it is unclear if the Instagram posts analyzed are of the public domain with copyright rules being extremely flexible on social media platforms. Fortunately, I can use these photos under the “fair use” doctrine, since I am using them for educational purposes and am not profiting from them.<sup>20</sup> Additionally, it is unlikely for the results of this research to harm a business only aid in increasing their popularity.

### Error and Future Research:

While the data mostly appears to support the same conclusion, there were relatively large standard deviations, which suggested that there was too much variation for the categories. In terms of likes and follower counts, a normal distribution or bell shaped curve would be more ideal and could have led to more accurate results. However a sample like that may not be representative due to the distribution of popularity on Instagram.

<sup>19</sup> @thatlondonduo, “Mmmm chocolate cake,” Instagram photo.

<sup>20</sup> “Copyright,” Help Center, *Instagram*, [https://help.instagram.com/126382350847838?helpref=page\\_content](https://help.instagram.com/126382350847838?helpref=page_content), accessed 21, May 2020.

Below are histograms of the like count and follower count of the posts I analyzed:

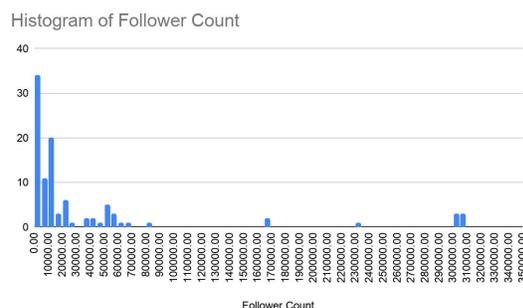
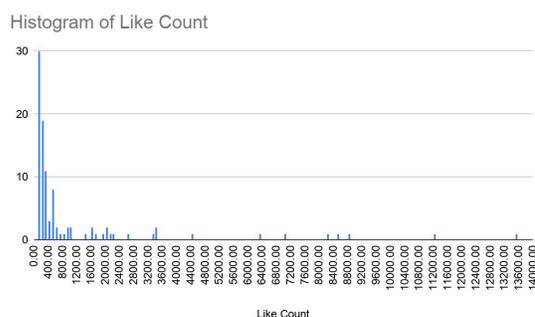


Figure 1: Histogram of sample's like count

Figure 2: Histogram of sample's follower count

Notice how both are shifted left with peaks on the left side and outliers far right.

To achieve a normally distributed sample, based on like and follower count, would use a stratified sampling method, instead of taking posts solely from the tag page. I would choose accounts of increasing popularity and follower counts. This would ensure a normal distribution of predetermined popularity in the sample, but, again, this may not be the most representative method of sampling.

Sources of error are in the manipulation of like and comment count. If an account owner "bought" likes or followers, that would skew the data. Additionally large accounts have a great disparity in their like to follower ratio, because many of the followers are inactive accounts and do not like or comment. Additionally when the content creator responds to comments that increases the comment count without increasing the signal word count, because they often simply reply "thank you". As a result the TAM of that post decreases significantly.

### Significance:

My study has combined two areas of interest, "food porn" and marketing over S.M. By placing my study on Instagram, I am doing what Ryan Eanes identified was lacking in Signe Rousseau's book.<sup>21</sup> I also built upon the foundations set by Jacobs and Zapallo and her peers in their studies of food photography<sup>22</sup> and plating<sup>23</sup>. Additionally, my conclusion supports the notion that food is sexualized online, topics debated by restaurant professionals in Anne McBrides article<sup>24</sup>. A photo of a large chocolate cake, can be interpreted as pornographic. In the process of my research, I noticed that food is no longer being treated as such. This was evident in the comment section, where users were describing a slice as aesthetically pleasing and beautiful more often than delicious. More research should be done to explore these phenomena. Additionally, the results of similar research have aided the food industry in marketing their products. Based on the results of my research, I would advise bakeries to post cakes on instagram that follow the appetizing trends described previously. Many pictures in the sample were posted

<sup>21</sup> Eanes, "Food and Social Media: You Are What You Tweet,": 86- 87.

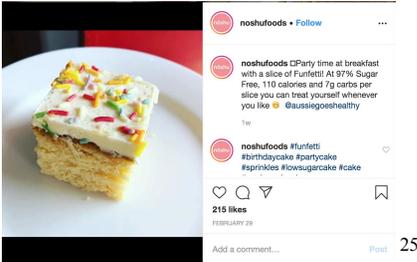
<sup>22</sup> Austin Bradley Jacobs, "Impact of Photo Angle."

<sup>23</sup> Francesca Zampollo et al, "Looks Good Enough to Eat": 31-46.

<sup>24</sup> McBride, "Food Porn,": 38-41

by avid bakers and food accounts, but a large amount were posted by bakeries, advertising their cakes. Many are already utilising S.M. as a marketing tool, but the results of my research can heighten the effectiveness of their accounts, showing them what to post and what not to.

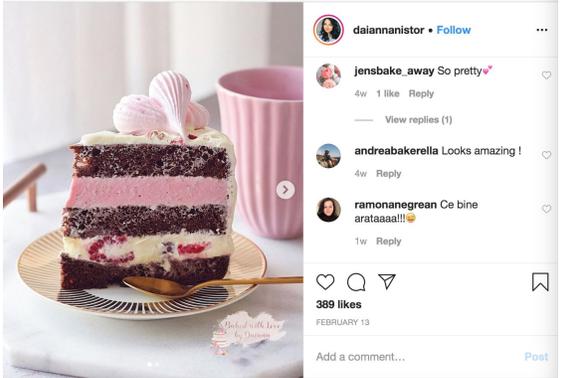
## Appendix

Table 1		
Visual Characteristic	Definition	Categories
Number of Cake Layers	A sheet of sponge. A spread of icing or filling does not qualify as a layer.	<p>1</p> 
		<p>2</p> 
		<p>3</p> 
		<p>4</p>
		<p>5</p>
		<p>6+</p>

<sup>25</sup> Noshu (@noshufoods), “Party time at breakfast with a slice of Funfetti,” Instagram photo, February 29, 2020, <https://www.instagram.com/p/B9KiofCFSHD/>

<sup>26</sup> Carlie (@carlieeeeats), “Self-Car(ot),” Instagram photo, March 5, 2020, <https://www.instagram.com/p/B9Wsj4llbn4/>

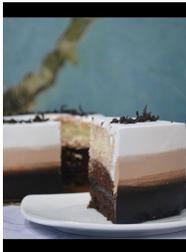
<sup>27</sup> Courtney Rich (@cakebycourtney), “Votes are in and my new Vanilla Cake will hit the blog tomorrow,” Instagram photo, February 23, 2020, <https://www.instagram.com/p/B86jVUZpiK7/>

<p>Ratio between filling and cake</p>	<p>The ratio between the filling(substance between layers i.e. buttercream) and the cake sponge. This does not include the side and top layers of icing, unless there is only one layer of cake. If the layers of filling vary, the largest filling layer is references. To determine if the ratio is low, medium, or high, I looked at the thickest cake layer and thickest filling layer.</p>	<p>Low: a 6+ to 1 ratio (filling to cake)<sup>28</sup></p> 
		<p>Medium: a ratio that varies between 2:1 and 5:1</p> 
		<p>High: a ratio of 1:1+</p> 

<sup>28</sup> Courtney Rich (@cakebycourtney), “Love your helpful tips in this morning’s post,” Instagram photo, January 10, 2020, <https://www.instagram.com/p/B7Jm1YOJukq/>.

<sup>29</sup> Carlie (@carlieeeeats), “Self-Car(rot),” Instagram photo, March 5, 2020, <https://www.instagram.com/p/B9Wsj4llbn4/>

<sup>30</sup> Daiana Nistor (@daiannanistor), “Raspberry mousse cake,” Instagram photo, February 13, 2020, <https://www.instagram.com/p/B8gB8i6AIFE/>.

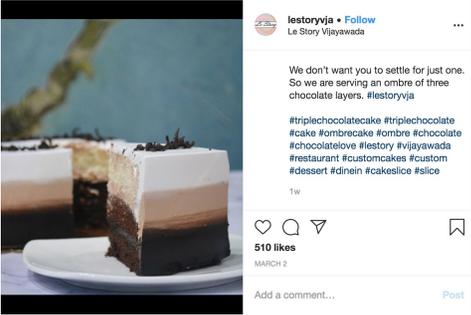
<p>Flavor of sponge</p>	<p>The assumed flavor of the cake based on appearance. If the flavor could not be identified immediately, the caption was consulted.</p>	<p>Vanilla sponge and similar flavors (white, yellow etc)</p>  <p>cakebycourtney • Follow      Love your helpful tips in this morning's post! Isn't it crazy how much weather can affect what we're baking? Also wanted to hop on and see what you're baking this weekend! I'm going to test out one or two of the brownie recipes you sent me and get my Oreo Brownie Banana Caramel Trifle posted too!</p> <p>2,186 likes      JANUARY 10      Add a comment... Post 31</p>
		<p>Chocolate sponge</p>  <p>dikanenistor • Follow      jenbake_away So pretty!      andrebakemella Looks amazing!      ramonamaganan Ce bino arinasanilla</p> <p>369 likes      Add a comment... Post 32</p>
		<p>Red Velvet</p>  <p>lovecakesgh • Follow      Community 12, Sans</p> <p>#tastethrichness #LoveCakes      #tastethrichness #kicobyLoveCakes      #chocolatecake #chocolate      #creamcheesecake #creamcheesecake      #creamcheesecake #creamcheesecake      #creamcheesecake #creamcheesecake      #creamcheesecake #creamcheesecake      #creamcheesecake #creamcheesecake</p> <p>126 likes      Add a comment... Post 33</p>
		<p>Other</p> <p>Multiple: a cake with multiple flavors, may have layers swirled with 2 or more flavors, or have multiple layers with varying flavors.</p>  <p>lestoryvja • Follow      Le Story Vijayawada</p> <p>We don't want you to settle for just one. So we are serving an ombre of three chocolate layers. #lestoryvja</p> <p>#triplechocolatecake #triplechocolate      #cake #ombrecake #ombre #chocolate      #chocolatelove #lestory #vijayawada      #restaurant #customcakes #custom      #dessert #dinner #cakeslice #slice</p> <p>510 likes      MARCH 2      Add a comment... Post 34</p>

<sup>31</sup> Rich, "Love your helpful tips," Instagram photo.

<sup>32</sup> Nistor, "Raspberry mousse cake," Instagram photo.

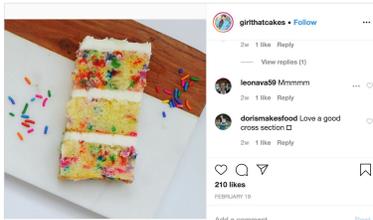
<sup>33</sup> Love Cakes (@lovecakesgh), "Cake slices available now," Instagram Photo, February 13, 2020, <https://www.instagram.com/p/B8gdTw0pmW1/>.

<sup>34</sup> Le Story Vijayawada (@lestoryvja), "Grab a slice when you dine in," Instagram photo, March 2, 2020, <https://www.instagram.com/p/B9QPYVKHoAZ/>.

Filling	The substance used to separate the layers of sponge	Buttercream and similar looking fillings (cream cheese frosting, fudge, etc)
		Jam
		Caramel
		Other
		Multiple: These cakes may have more than one filling between each layer of cake(a) or have a different filling for each layer(b). The differing fillings may be of different flavors(b) or entirely different substances(a).
		 <p>a) <sup>35</sup></p>  <p>b) <sup>36</sup></p>

<sup>35</sup> Rustika Cafe and Bakery (@rustikacafe), “White Chocolate raspberry,” Instagram photo, March 1, 2020, <https://www.instagram.com/p/B9MoOO7JJUm/>.

<sup>36</sup> Le Story Vijayawad, “Grab a slice,” Instagram photo

<p>Inclusion of extra components</p>	<p>These components other than the sponge, filling or external cover. They may be located in the icing or sponge, but have not been fully incorporated for flavor.</p>	<p>Yes, fruit</p>  <p>In this case the fruit is in the filling</p>
		<p>Yes, sprinkles or sweets</p>  <p>In this case the sprinkles are in the sponge</p>
		<p>Yes, other</p>
		<p>Yes, multiple</p>
		<p>No</p>
<p>External Cover</p>	<p>The main substance that enrobes the cake.</p>	<p>Buttercream and similar looking substances (cream cheese frosting, icing, etc)</p> <p>Ganache: melted chocolate</p> 

<sup>37</sup> Nistor, “Raspberry mousse cake,” Instagram photo.

<sup>38</sup> Ashley (@girlthatcakes), “Who wants a slice,” Instagram photo, February 19, 2020, <https://www.instagram.com/p/B8wLQBHPWL7/>.

<sup>39</sup> (@thatlondonduo), “Mmmm chocolate cake,” Instagram photo, February 19, 2020, <https://www.instagram.com/p/B8Yr7e8JWW6/>

		<p>Other: fondant, glaze, sprinkle coating, powdered sugar</p> <p>Multiple: in this case there must be multiple types of external cover. Cakes with covering of differing flavors are not included in this category.</p>  <p>This cake has buttercream and ganache.</p>
Color theme of the cake slice	The color palet that the cakes interior and exterior follows	<p>Neutrals and naturals: typically beige and yellow tones. The colors of the cake have not been manipulated from anything other than the flavors used.</p>  <p>Black, White, and or Grey: elements of the cake have been manipulated to fit these tones</p> 

<sup>40</sup> (@thatlondonduo), “Yummy cake,” Instagram photo, January 13, 2020, <https://www.instagram.com/p/B7QzTRepOJj/>.

<sup>41</sup> Rich, “Love your helpful tips,” Instagram photo.

<sup>42</sup> Rich, “Votes are in,” Instagram photo.

		<p>Pastels: elements of the cake were manipulated to be colorful, yet muted</p>  <p>43</p>
		<p>Colorful: the cake colorful and vibrant, this theme is often created with sprinkles or bright sponge colors.</p>  <p>44</p>
		<p>Brown: almost all elements are shades of brown, typically from chocolate flavoring</p>  <p>45</p>
<p>Cake Aesthetic</p>	<p>The artistic style that the cake generally follows. Multiple categories can be identified for a single cake.</p>	<p>Minimalist: identified by clean lines and fewer elements</p>  <p>46</p>

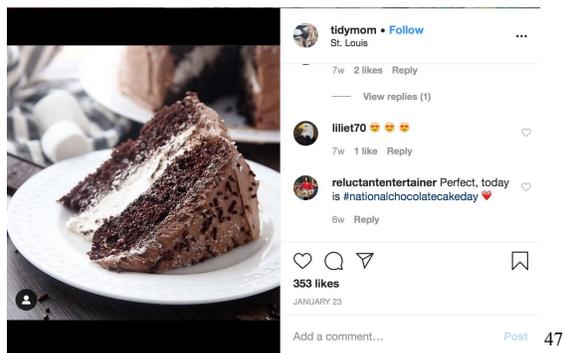
<sup>43</sup> Nistor, “Raspberry mousse cake,” Instagram photo.

<sup>44</sup> Carlie (@carlieeeeats), “Give Your Heart A Cake,” Instagram photo, February 20, 2020, <https://www.instagram.com/p/B8zgMXglGwf/>.

<sup>45</sup> @thatlondonduo, “Mmmm chocolate cake,” Instagram photo.

<sup>46</sup> Rich, “Votes are in,” Instagram photo.

Rustic: appears more homemade, fewer clean lines



Note how in this cake the top is sloped and the buttercream coating is more sloppily put on.

Extravagant: complex decor, abundance or different elements and techniques, extreme features (ie lots of layer or toppings)



Luxurious: metallic tones, expensive decor (gold leaf, pearls, etc)



<sup>47</sup> Cheryl (@tidymom), “Sometimes you need a rich, fudgy chocolate cake,” Instagram photo, January 23, 2020, <https://www.instagram.com/p/B7rU2YwhcIX/>.

<sup>48</sup> (@thatlondonduo), “Yummy cake,” Instagram photo, January 13, 2020, <https://www.instagram.com/p/B7QzTRepOJj/>.

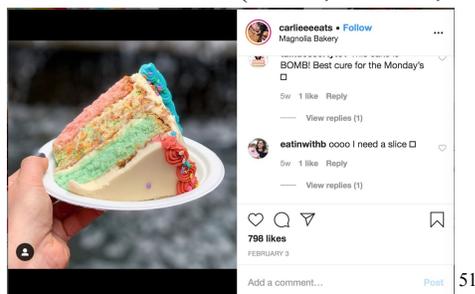
<sup>49</sup> Miriam Schultz (@bakingbymiriam), “Just couldn’t resist sharing,” Instagram photo, January 27, 2020, <https://www.instagram.com/p/B7106yApWBu/>.

Themed: cake designed for a purpose such as a holiday or birthday



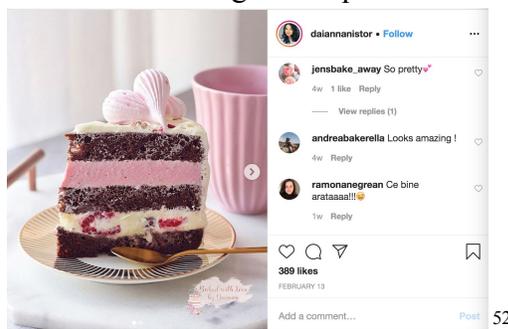
The cake pictured is new years themed.

Classic: simple decorate, decorating techniques common in stores (swirls, borders, etc)



The borders and generic sprinkles are reminiscent of a typical children's cake.

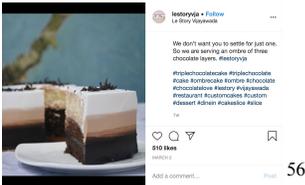
Elegant: looks professional, clean lines, more difficult decorating techniques.



<sup>50</sup> Mandy Merriman (@bakingwithblondie), "It's a brand new year," Instagram photo, January 1, 2020, <https://www.instagram.com/p/B6yGLGKB4iK/>.

<sup>51</sup> Carlie (@carlieeeeats), "This Too Shall Pastel," Instagram Photo, February 3, 2020, <https://www.instagram.com/p/B8HviOxFnxj/>.

<sup>52</sup> Nistor, "Raspberry mousse cake," Instagram photo.

Table 2		
Visual Characteristic	Definition	Categories and examples
Cake position	The stance the cake slice takes.	<p>Standing up:</p>  <p>53</p>
		<p>Laying down:</p>  <p>54</p>
Cake face	The side of the cake closest to the viewer or the side that is the most visible.	<p>Outside:</p>  <p>55</p>
		<p>Exterior:</p>  <p>56</p>

<sup>53</sup> Nistor, “Raspberry mousse cake,” Instagram photo.

<sup>54</sup> Rich, “Votes are in,” Instagram photo.

<sup>55</sup> Nistor, “Raspberry mousse cake,” Instagram photo.

<sup>56</sup> Le Story Vijayawad, “Grab a slice,” Instagram photo

		<p><b>Point:</b></p>  <p><b>Top:</b></p>  <p><b>Combination:</b></p>  <p>In this photo the edge where the outside and the exterior meet is closest to the viewer.</p>
<p>Slice Shape</p>	<p>The way that the cake is cut, resulting in a certain shape</p>	<p>Pie Style: most common way a round cake is cut.</p>

<sup>57</sup> Katie Severn (@bakingbutterlylove), “Whats your favorite vanilla cake filling,” February 6, 2020, <https://www.instagram.com/p/B8PqL5spZXH/>.

<sup>58</sup> Carlie, “This Too Shall Pastel,” Instagram Photo.

<sup>59</sup> (@thatlondonduo), “Yummy cake,” Instagram photo.

		<p>Rectangular:</p>  <p>girllthecakes • Follow 3w 1 like Reply View replies (1) monava99 Mmmmm 3w 1 like Reply dortimakesalad Love a good gross section! 3w 1 like Reply 210 likes FEBRUARY 9 Add a comment... Post 60</p>
<p>Background</p>	<p>The environment around the cake, when the photo is taken</p>	<p>Plain: blank, one color</p>  <p>saltadenabakery • Follow Saltadena Bakery surprised me with a slice of this tonight and it is incredible. Each fruit note is so perfectly pronounced and the cake is this cloud carrying the flavors along. Well done! 🥰🥰🥰 3w Reply americanbutcher Need this!!! 🍷 2w Reply 527 likes FEBRUARY 18 Add a comment... Post 61</p> <p>Casual: taken at the scene of consumption (cafe, kitchen, table, etc)</p>  <p>rustikacafe • Follow Houston, Texas 1w 1 like Reply View replies (1) ortitagnado Looks delicious!!!! This is going on my list of years for date night! 1w 1 like Reply View replies (1) 548 likes MARCH 1 Add a comment... Post 62</p> <p>Styled: extra decor to compliment the cake</p>

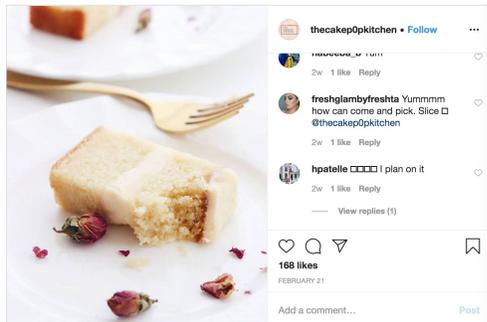
<sup>60</sup> Ashley, “Who wants a slice,” Instagram photo.  
<sup>61</sup> Saltadena Bakery & Cake Shop (@saltadenabakery), “Introducing our new P.O.G. -inspired Cake,” Instagram photo, February 18, 2020, <https://www.instagram.com/p/B8uGvskAE3X/>.  
<sup>62</sup> Rustika Cafe and Bakery, “White Chocolate raspberry,” Instagram photo.

		
<p>Plate</p>	<p>What the cake slice is rested on</p>	<p>Plain: solid white, black or grey plate</p> <hr/> <p>Decorative: a plate with patterns or a vibrant color</p> <hr/> <p>None</p>
<p>Angle of the shot</p>	<p>The perspective from which the cake is photographed in reference to the cake</p>	<p>Overhead: Camera directly over the cake</p>  <hr/> <p>Side: camera lens perpendicular to the surface</p>  <hr/> <p>Downward: angle is between side and overhead</p>

<sup>63</sup> Jessica (@cakingadventure), “Slice pic,” February 15, 2020, <https://www.instagram.com/p/B8mc5RKJvI3/>.

<sup>64</sup> Saltadena Bakery & Cake Shop, “Introducing our new P.O.G.,” Instagram photo.

<sup>65</sup> Severn, “What’s your favorite vanilla ,” Instagram photo.

		
Is the slice complete?	Has a piece or bite been taken from the slice? If a piece is separated from the slice, but is still on the plate, the slice is incomplete.	<p>Yes</p> <p>No</p> 
Utensils	Is there a fork, spoon, or knife in frame	<p>Yes</p> <p>No</p>
Other decor on plate	Are there elements on the plate that are not part of the cake?	<p>None</p> <p>Flowers</p> 

<sup>66</sup> Rich, “Love your helpful tips,” Instagram photo.

<sup>67</sup> @thecakepopkitchen, “Don’t forget to treat yourself,” Instagram photo, February 21, 2020, <https://www.instagram.com/p/B81y-tlBlsz/>.

<sup>68</sup> @thecakepopkitchen, “Don’t forget to treat yourself,” Instagram photo.

		<p><b>Fruit</b></p>  <p>cakebycourtney • Following ...</p> <p>cakebycourtney Votes are in and my new Vanilla Cake will hit the blog tomorrow!</p> <p>Gotta say, I was a little surprised but I'm not at all disappointed! This classic Vanilla Cake is flavorful and delicious, and I have no doubt it will show up in your kitchen over and over. It's the perfect base for different fruit or custard pairings, so you'll be able to turn it into</p> <p>7,040 likes FEBRUARY 23</p> <p>Add a comment... Post 69</p>
	<p>Is the full cake in the background?</p>	<p><b>Other</b></p> <p>Multiple: more than 1 type of decor, i.e. flowers and fruit, not 2 types of fruit</p>
<p>Full cake</p>	<p>Is the full cake in the background?</p>	<p><b>Yes</b></p>  <p>bakingwithblondie • Follow ...</p> <p>year. 2020!</p> <p>New beginnings are my favorite because I can start fresh, turn the page, begin a new chapter, and mark the beginning of a something new. It's also a great time to refresh (or continue) personal goals or affirmations of times past. Some of my goals have been in place for a while, some started last week, and some are beginning today. I know there are some who aren't exactly into new year resolutions, and that's</p> <p>3,457 likes JANUARY 1</p> <p>Add a comment... Post 70</p> <p><b>No</b></p>
<p>Cake Size</p>	<p>The size of the slice in reference to the whole cake.</p>	<p><b>Small: the slice is less than 1/8th of the entire cake</b></p>  <p>saltadenabakery • Follow Saltadena Bakery</p> <p>surprised me with a slice of this tonight and it is incredible. Each fruit note is so perfectly pronounced and the cake is this cloud carrying the flavors along. Well done!</p> <p>3w Reply</p> <p>americanbutcher Need this!!!</p> <p>2w Reply</p> <p>527 likes FEBRUARY 18</p> <p>Add a comment... Post 71</p> <p><b>The slice is between 1/8th and 1/6th of the entire cake</b></p>

<sup>69</sup> Rich, "Votes are in," Instagram photo.

<sup>70</sup> Merriman, "It's a brand new year," Instagram photo.

<sup>71</sup> Saltadena Bakery & Cake Shop, "Introducing our new P.O.G.," Instagram photo.

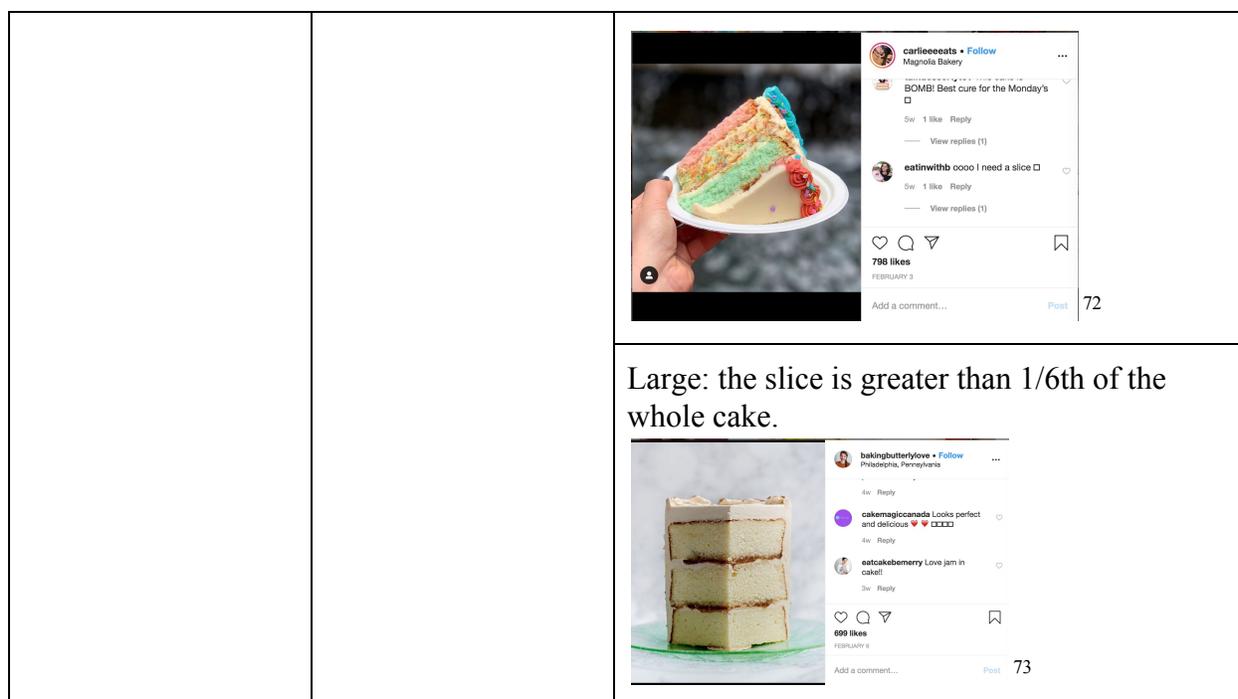


Table 15: Visual Characteristic: Extra Components in Cake

Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
yes, fruit	0.04	0.2585	0.0936	0.7048	0.819
yes, sprinkles/sweets	0.13	0.237	0.1387	0.3129	0.4934
yes, others	0.03	0.1705	0.1409	0.3172	---
yes, multiple	0.03	0.3087	0.2447	0.8482	---
none	0.77	0.2889	0.2623	0.7177	Compared against

Table 16: Visual Characteristic: Ratio of Filling to Cake

Categories	Frequency	Average TAM	SD	One sample t-test	Paired t-test
low	0.35	0.2534	0.1514	0.3428	0.1806
medium	0.54	0.2771	0.2530	0.9786	0.367
high	0.11	0.3609	0.3898	0.4967	Compared against

<sup>72</sup> Carlie, "This Too Shall Pastel," Instagram Photo.

<sup>73</sup> Severn, "What's your favorite vanilla ," Instagram photo.

Table 17: Visual Characteristic: Color Palette					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Neutrals	0.39	0.3052	0.2602	0.5182	0.9381
Black, White & Gray	0.1	0.2421	0.3459	0.3459	0.5632
Pastels	0.19	0.2634	0.2605	0.8094	0.5905
Colorful	0.2	0.2368	0.1464	0.2233	0.2354
Brown	0.12	0.3116	0.2025	0.5773	compared against

Table 18: Visual Characteristic: Cake Position					
Categories	Frequency	Average TAM	SD	1 sample t-test	Paired t-test
Standing Up	0.5	0.3032	0.2968	0.5995	0.3986
Lying Down	0.5	0.2529	0.1696	0.2994	Compared to

Table 19: Visual Characteristic: Background					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Plain	0.29	0.2577	0.1534	0.4805	0.5029
Casual	0.31	0.3022	0.3228	0.6804	compared to
Styled	0.4	0.2741	0.2248	0.9128	0.6678

Table 20: Visual Characteristic: Angle of Shot					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Side	0.32	0.3161	Side	0.2851	compared to
Overhead	0.15	0.276	Overhead	0.1887	0.6232
Downward	0.53	0.2556	Downward	0.2277	0.2847

Table 21: Visual Characteristic: Complete slice					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Yes	0.94	0.282	0.2475	0.8778	compared to
No	0.06	0.2164	0.1162	0.2501	0.5221

Table 22: Visual Characteristic: Extra Decor on Plate					
Categories	Frequency	Average TAM	SD	one sample t-test	Paired t-test
Yes, flowers	0.03	0.2647	0.2207	0.9261	0.4084
Yes, fruit	0.04	0.4102	0.1959	0.2702	compared to
Yes, other	0.09	0.2769	0.2014	0.9871	---
None	0.84	0.2724	0.2497	0.835	0.3482

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