

Leaping Duck Test Kitchen
Non-Allergen Free Quadrant
The Great Peanut Butter Kerfuffle of 2019

Submitted by

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Abstract

In this experiment we will be exploring the differences between two methods of Peanut butter sandwich construction. Each of them has their own strengths and weaknesses, and we are here to figure out what those are.

Introduction

There are very few things in this world that are unilaterally accepted as correct by the vast majority planet. You could safely assume that most people would like to breathe clean air, be nice to old ladies at the grocery store, and choose a calzone over a pizza. The correct way to concoct a peanut butter and jelly (henceforth known as PB&J) sandwich was on this list until today.

In this experiment we are going to determine the difference between the two methods of creating a PB&J. In an attempt to give all methods due process, we are conducting this experiment to evaluate the merits of the two methods.

Methods

The experiment will consist of a 3 very short steps. The first step will be to create three sandwiches using each method. During the second step the sandwiches will be subject to three tests. The first test will be a blind taste test to see if the taster can tell the difference between the two methods. The second test will consist of the tester eating the sandwich in a normal manner. He will be allowed to give his impressions based on the appearance and taste of the sandwich. The final test will be the business standard pooch test. In this test two dogs will be given half of a peanut butter sandwich and vocalize their opinions. The final step will be to clean all of the utensils used for the experiment. For the remainder of this document “Method #1” will be the

process of putting one of the base ingredients on each piece of bread. “Method #2” will be the process of mixing each ingredient together before spreading it onto the bread.

Creation Phase

I took a loaf of New York Salt Rye and sliced it into 6 slices that were approximately 1 cm thick. I took these slices and cut them in half forming two mirrored pieces of bread to be used to form the exterior of the sandwich. To three of the twelve slices I added 20 grams of Skippy Creamy Peanut butter. I added 20 grams of Cedar Creek Orchard Triple Berry Jam to three more pieces. These formed the three sandwiches for the first method.

To form the remaining three sandwiches, I placed 20 grams of peanut butter and 20 grams of jam into three identical Pyrex containers. Using a fresh knife for each bowl I mixed the two ingredients to form a homogenous paste. I applied the mixture to three of the remaining bread slices, weighing the amount of mixture that made it to the sandwich. I subtracted the amount that made it from the initial 40 grams of mixture. I divided the difference by the original weight to determine the percentage of mixture lost in the mixing process.

Consumption Phase

This stage consisted of three parts. The first part was the blind taste test, then it was the regular taste test, and finally the pooch test.

The blind taste test was conducted using a turntable (Lazy Susan). The taster covered his eyes with a blindfold and slowly spun the turntable around letting it come to a stop naturally. He then reached out and grabbed the first sandwich he could find and tasted it. Then grabbed the other sandwich to try as well. There was a club soda present to allow him to clean his palate between bites.

The next stage was a simple taste test. It was performed exactly the same as the first stage but without the turntable or blindfold. The club soda was refreshed and there for palate cleansing.

The last stage is arguably the most important test of the experiment. The remaining two sandwiches were cut in half and put in dog bowls. Each dog was told to sit and wait until they were allowed to begin the test. When the signal was given, they were both allowed to eat their

sandwiches how they see fit. Before the dogs were allowed to eat their sandwiches the label was read to make sure it did not contain grapes.

Cleaning Phase

The cleaning phase was done to see how much extra work was created by the second method. To do this method I grabbed a clean Bounty Paper towel for each method of construction. I washed all three sets of utensils for each method while a stopwatch was going. I divided this number by three to get the average time spent cleaning per sandwich.

	Initial Peanut butter	Initial Jam	Final Mixture	Percent Lost
1	20	20	40	0%
2	20	20	40	0%
3	20	20	40	0%
4	20	20	36	10%
5	20	20	35	12.5%
6	20	20	38	5%

Figure 1

	Total Time	Per sandwich time
Method 1	41.32 seconds	13.77 seconds
Method 2	2 minutes 38.7 seconds	52.9 seconds

Figure 2

Results

The results of the blind taste test had some surprising results. Method #2 was way more peanut butter forward with the jelly bringing up the rear. It actually seemed to have a little bit of extra sweetness, but that was not certain enough to enter into the equation. Further testing may be required for that particular piece of information. The sandwich created by Method #1 had the jelly hitting earlier in the taste and strangely enough intermingling with the flavors of the peanut butter more.

The regular taste test pulled out some interesting observations as well. The first observation is that Method #1 clearly looks like a peanut butter and jelly sandwich. It has the distinct layers that we have grown accustomed to seeing. The fatal flaw of Method #1 was a result of these layers. The jelly had a tendency to seep out the sides of the sandwich and on one occasion during this test a drop completely left the sandwich and had to be finger swiped off the plate. Method #2 was a little less visually appealing – purple and brown are not two colors that mix well – but it more than made up for that in its structural integrity.

The pooch test failed to live up to its expectations. I was expecting some great insight to come from this test but they both just devoured their sandwiches without any regard towards the scientific process.

The major downsides to Method #2 might have been exaggerated by the scale of this experiment. If you take a look at Figure 1 you will see that we experienced up to a 12% loss of mixture when mixing it in a bowl. I think this is due to the relatively low volume of mixture in comparison to the surface area of the bowl. If you were making multiple sandwiches, you would lose a much lower percentage of the mixture in this process. The cleaning process will still be more than Method #1 regardless of how large of a batch you make. This issue can be remedied by a dishwasher so is really not a deal breaker.

Discussion and Conclusions

As you can tell there are many positives and negatives to both methods. They each have their pros and cons, but the cons from both can certainly be remedied without much issue. For instance, the mixture loss that results from Method #2 can be mitigated by making one large batch of mix and pulling from the jar on a per sandwich basis. The flaw of Method #1 can be resolved by eating like an adult, and when that

fails using the finger swipe technique. My personal feelings are that Method #2 is not worth the extra effort, but I no longer harbor any ill will towards people who use it.
