

# Case Presentation

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PANCAKE FLIPPING CONTEST – “BEST PANCAKE FLIPPER”

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# Context

Arielle and Boris compete in the little-known sport of pancake flipping, and have both been nominated for this season's "best pancake flipper" award.

Half the people in the pancake flipping league office think Arielle is the better pancake flipper, and the other half think Boris is, so they have retained a data scientist to help solve the issue.

The stats from this season are attached. The columns are:

- the contestant's name,
- the match day,
- which hand they used to flip the pancakes,
- their score (how many pancakes they flipped successfully), and
- how many total pancakes they attempted to flip

# Problem

Is Arielle or Boris the better pancake flipper? Do both sides have a case here?

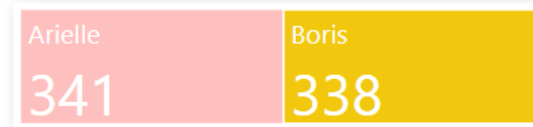
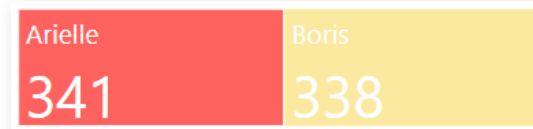
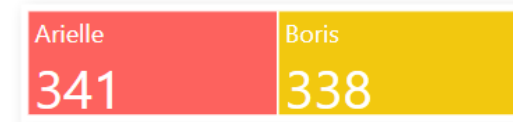
# Initial Findings

Looking at the basic details we infer below points

- Arielle has scored 3 points more than Boris
- Arielle and Boris have won same number of matches
- Arielle is more comfortable flipping the pancake with her right hand scoring more points
- Boris is more comfortable flipping the pancake with his left hand scoring more points

Based on these initial findings it easy for anyone to think Arielle is better than Boris

Before we conclude let's take a deep dive into the individual performance of Arielle and Boris



679

46

Won

0

Lost

4

Tie



341

23

Won

23

Lost

4

Tie



338

23

Won

23

Lost

4

Tie

# Deeper Insights – Arielle’s Performance

- Arielle has scored a total of 341 points, 269 using her right hand and 72 using her left
- Arielle is more comfortable flipping the pancake with her right hand
- Since she is comfortable using right hand she has used it in 700 out 1000 attempts and scored 269 points with a success rate of 38.4 %
- Also, her average score using her right hand is higher than left hand



341

23

Won

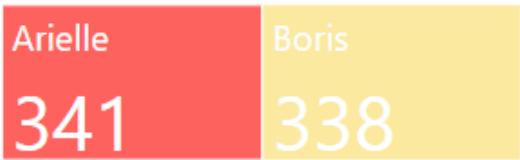
23

Lost

4

Tie

Score by Name



Score by Hand



Average of Score by Hand



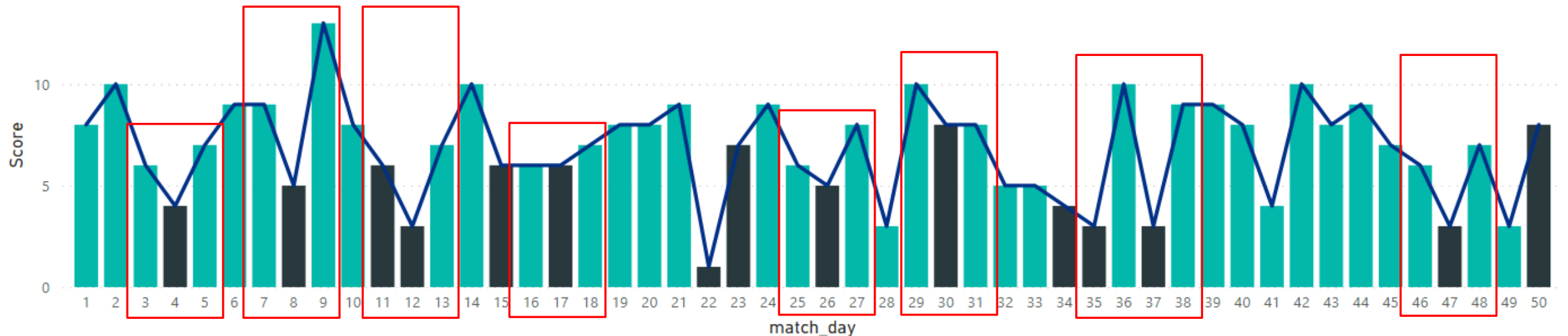
Hand	Left		Right		Total	
Name	Success %	Attempts	Success %	Attempts	Success %	Attempts
Arielle	24.0%	300	38.4%	700	34.1%	1000
Total	24.0%	300	38.4%	700	34.1%	1000

# Deeper Insights – Arielle's Performance

- Looking at performance at match day level, we see in most cases when Arielle scored low she has used her left hand
- We can also see her efforts to change to right hand from left in most scenarios where she has scored lower than pervious day
- She has awareness of her performance difference based on the hand she uses

Score by match\_day and Hand Used

Hand ● Left ● Right ● Score



# Deeper Insights – Boris’ Performance

- Boris has scored a total of 338 points, 139 using his right hand and 199 using his left
- Overall, Boris has scored higher points using his left hand than his right hand
- However, looking at the success rates of each hand, Boris has been more successful when he used his right hand with 46.3%
- His average score using his right hand is higher than his left hand and Arielle’s highest average(7.69 – right hand)
- Though he was scoring more using his right hand he has used it only in 300 out of 1000 attempts.



338

23

Won

23

Lost

4

Tie

Score by Name

Arielle

341

Boris

338

Score by Hand

Left

199

Right

139

Average of Score by Hand

Right

9.27

Left

5.69

Hand	Left		Right		Total	
	Name	Success %	Attempts	Success %	Attempts	Success %
	Boris	28.4%	700	46.3%	300	33.8%
	Total	28.4%	700	46.3%	300	33.8%

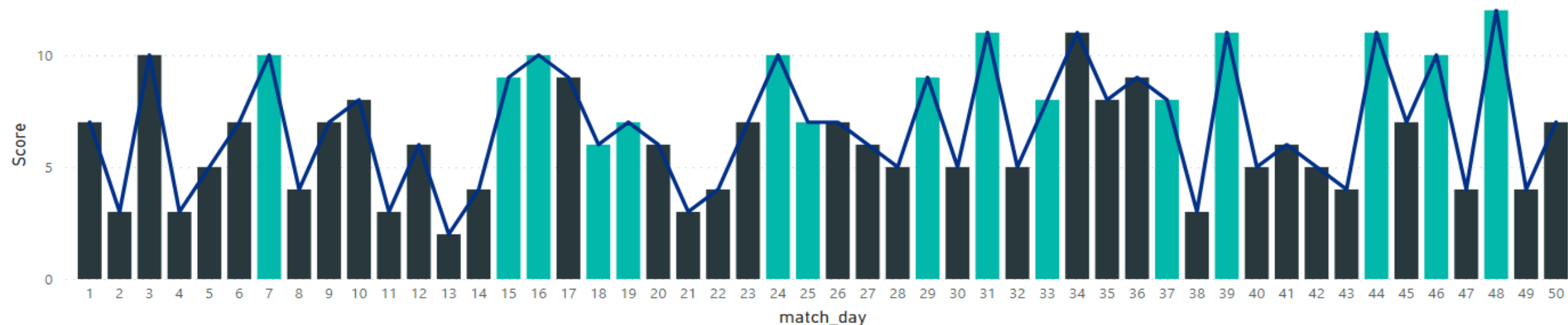


# Deeper Insights – Boris' Performance

- Looking at performance at match day level, we can see the lowest score Boris has scored using his right hand is 6 points
- However, from the chart below we can see that he hasn't really considered the hand factor and used his left hand in most matches

Score by match\_day and Hand Used

Hand ● Left ● Right ● Score



# Deeper Insights – Comparing Performances

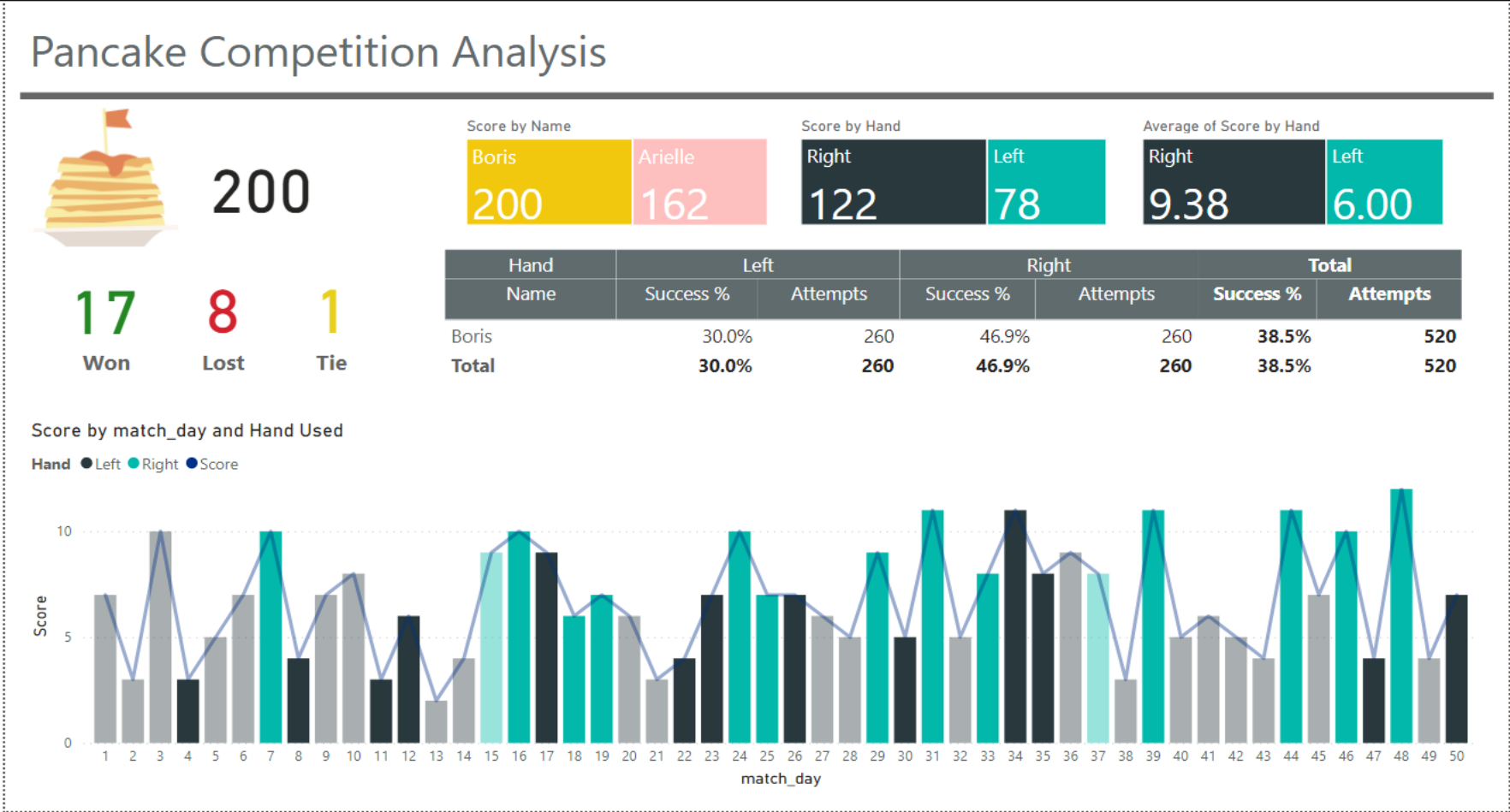
Comparing the performance of Arielle and Boris

- We can see that they have different strengths while using different hands.
- Boris has high success % & average score while using his right hand however has made fewer attempts with right hand which has resulted in lower score.
- Arielle has relatively lower success % & average score compared to Boris while using her right hand, however she is aware that she scores better with her right hand and has attempted more matches using her right hand which has helped her achieve overall high score.

Continued in next page...

# Deeper Insights – Comparing Performances (Cont.)

- Additionally, when we compare the scores on the match days when both Arielle and Boris have used either their left or right hand, we can see that Boris has score more and won more matches.



# Conclusion

Based on these observations, it is clear that Boris is a better Pancake Flipper especially when he uses his right hand. However, he has failed to observe this trend in his performance which has resulted him losing out on scoring more points.

Arielle on other hand was able to assess her strength early on in the competition which helped her score higher than Boris.

Thank You