

Survivor: Outwit, Outplay, Outlast, Out-Overanalyze

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Abstract

Survivor is a reality competition television franchise. But the question of which season of Survivor is best is a difficult thing to quantify. While that is what I was setting out to determine when I began this project, the thing I think I have found is how to quantify my level of investment in the show. In this paper, I analyze my series of Survivor Book Reports™ to determine how my level of interest and enjoyment in the show has evolved throughout my first viewing.

1. Introduction

Wikipedia defines Survivor as ‘the American version of the international Survivor reality competition television franchise’ (Wikimedia Foundation, 2022). The show itself was derived from the Swedish television program ‘Expedition Robinson’ which premiered in 1997 (Wikimedia Foundation, 2022). The first American series premiered on May 31st in 2000 on CBS and has been hosted by Jeff Probst for all of its 42 seasons. Despite the show’s overwhelming popularity, especially in its first seasons, I had never seen a full episode until this year. I saw many commercials when I was growing up; but they never drew me in.

Now, more than 20 years later, I have begun the dive into the massive backlog of content this show has to offer. With that comes the unique opportunity to see how the show has evolved and to analyze this massive catalog of data with fresh eyes. After watching the first season recommended to me (Survivor 28: Cagayan), I realized it was difficult for me to comment on what had happened in the season. From then on, I kept a record of what was going on throughout the seasons and created ‘book reports’ covering my thoughts.

After watching several seasons, I found that not all seasons were created equally. There were some seasons which were more engaging than others. I wanted to find a way to quantify which seasons were superior and I already had these reports which I could try and utilize to do so. This was the original intent; however, the initial results showed this might not be entirely applicable (I will talk about this more in the Discussion section). Instead, the focus of this paper was turned to quantifying how invested I got in Survivor throughout the seasons.

This paper is organized as follows. In Section 2 I introduce the Methods of how I created the Survivor Book Reports™ and how I did my quantitative analysis. In Section 3 I introduce the Results from the analysis. In Section 4 I present my Discussion and Conclusions. Finally, in Section 5 I will present my ideas for Future Work.

2. Methods

The order in which I watched the seasons was given to me by Laurin Gray and is given in **Table 1** (Gray, 2022). It was designed to get me interested in the show and then give me background on how it began and evolved. The first Survivor Book Report™ I wrote was simply a short review of Survivor: Philippines and how I felt it compared with the Cagayan. I felt that it was difficult to remember everything that happened throughout the season, however, and decided to write notes down as the season went from then on. For each season from Pearl Islands on, I took notes divided by episode and wrote the overall review (now on referred to as the Thoughts section) at the end. If I felt that something noteworthy happened, I wrote about it under the episode header to review later. The Thoughts section is always finished with an ‘In Conclusion’ section which denotes a standout player or event from the season.

Table 1. Order in which I watched the seasons. The order was suggested to get me on board with the show and then to develop a better understanding of how it got to where it is today. Seasons 28 and 25 were suggested as some of the most fun/interesting seasons. Seasons 7 and 12 through 18 were a combination of interesting and fundamental seasons (Gray, 2022).

Watch Order	Season Name	Season Number
1 st	Survivor: Cagayan	28
2 nd	Survivor: Philippines	25
3 rd	Survivor: Pearl Islands	7
4 th	Survivor: Panama	12
5 th	Survivor: Cook Islands	13
6 th	Survivor: Fiji	14
7 th	Survivor: China	15
8 th	Survivor: Micronesia	16
9 th	Survivor: Gabon	17
10 th	Survivor: Tocantins	18

In order to quantify these reports, I developed a few different criteria. The first metric was simply a word count. I split this up into words that were all uppercase (with the exclusion of I and A) and words that were not all uppercase. Words that were written in all uppercase letters denote excitement (ex. HE REALLY DID IT) and are therefore a potential metric for engagement with the program. The total number of words (lowercase + uppercase) was also a

potential level of engagement with the show. The idea being the more I am writing about the season, the more there is to say, the more interesting it is.

Another potential metric is the number of sentences. This is related to number of words; but may catch things that words don't. The same distinction is made between upper and lowercase words; however, this time the distinction is made if a sentence only contains uppercase words or not. Uppercase words may include abbreviations (ex. BBC), whereas uppercase sentences are only moments of excitement. It is important to remember, however, that a large part of the writing being analyzed are notes and not fully formed thoughts (with the exclusion of the Thoughts section). Therefore, a 'sentence' is defined as any string of word(s) separated by punctuation or a line break.

The last metric I used to quantify my engagement is the use of punctuation. Since most of my notes are not complete sentences, and rather thoughts separated by line breaks, I did not consider the number of periods as a useful punctuation metric. Instead, I focused on the number of exclamation points (!), question marks (?), and interrobangs (!?). Exclamation points often represent my surprise that something has happened and requires some level of understanding of what is expected in the show. Question marks can denote questions of the rules or what is considered normal in the show; however, it can also represent my questioning of the players motives in actions. Finally, interrobangs quantify the highest level of engagement. For an interrobang to be used it requires me to understand the rules of the game and be in utter disbelief that something has occurred. This makes them the most powerful metric of engagement for punctuation, but also the rarest.

In addition to the previous metrics, the book reports sometimes contained more than just words. Pictures were occasionally necessary to convey the feelings and scenarios I wanted to depict. It is somewhat difficult to combine these pictures with the metrics I have already displayed, specifically calling on word count to quantify many of my results. Or rather, it would be difficult if we didn't have a direct conversion between the two. As is well known, a picture is worth exactly 1,000 words. Therefore, I simply took the number of pictures present in a report, multiplied that number by 1,000, and added it to the total number of words. The effects of this on total word count are shown in the Results section.

3. Results

My initial guess was that the seasons with my favorite player (Yau-Man) would be the highest ranked. This would mean that the ranking system I developed was placing my favorites at the top. Instead, it revealed that, in most all cases, there was a gradual increase in the metrics as the seasons went on.

The most apparent version of this can be seen when looking at the sheer number of words written about a season (**Fig. 1**). This shows that I am more invested in the seasons as they go on, but not necessarily that the season with the most words is my favorite season. There is evidence

that the total number of words is beginning to cap at around 8000 as the seasons go on. If this trend keeps up, then total words might be a metric for exploring the best season in the future. Survivor: Micronesia currently holds the top spot in this metric and is one of my favorite seasons. It is important to reiterate that uppercase words typically denote excitement or disbelief. It is interesting that the occurrence of uppercase words (and therefore excitement) grows at a nearly equal rate to the number of lowercase words

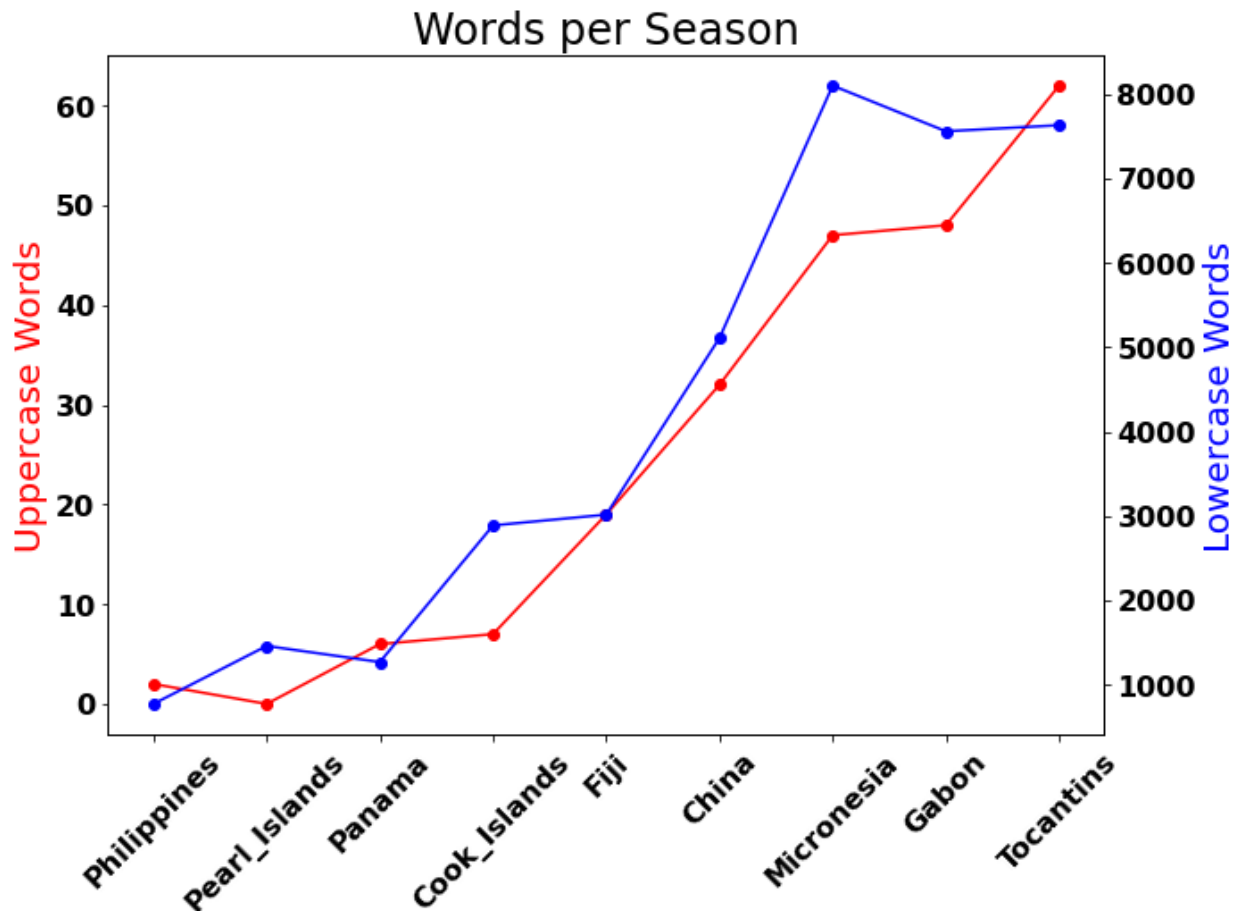


Figure 1. The total number of uppercase and lowercase words are shown for each season. The left-hand y-axis denotes the number of uppercase words. The right-hand y-axis denotes the number of lowercase words. A general upward trend can be seen as the seasons progress.

The average number of sentences per season shows a similar trend to words (**Fig. 2**). This makes sense as an uppercase sentence (a sentence consisting of only uppercase words) contains only uppercase words by definition. It does provide a check on the uppercase word count, however, as it removes the effects of individual abbreviations on the uppercase word count. The number of sentences (or individual thoughts) also increases as the seasons go on and reaches a maximum in Micronesia (followed very closely by Tocantins). Surprisingly, Gabon holds the

record for most uppercase sentences, a departure from the maximum uppercase words found in Tocantins. This likely relates to more individual surprises in Gabon as opposed to more to say about those surprises in Tocantins. With the exception of China, the rate of growth of upper- and lowercase sentences is relatively equal.

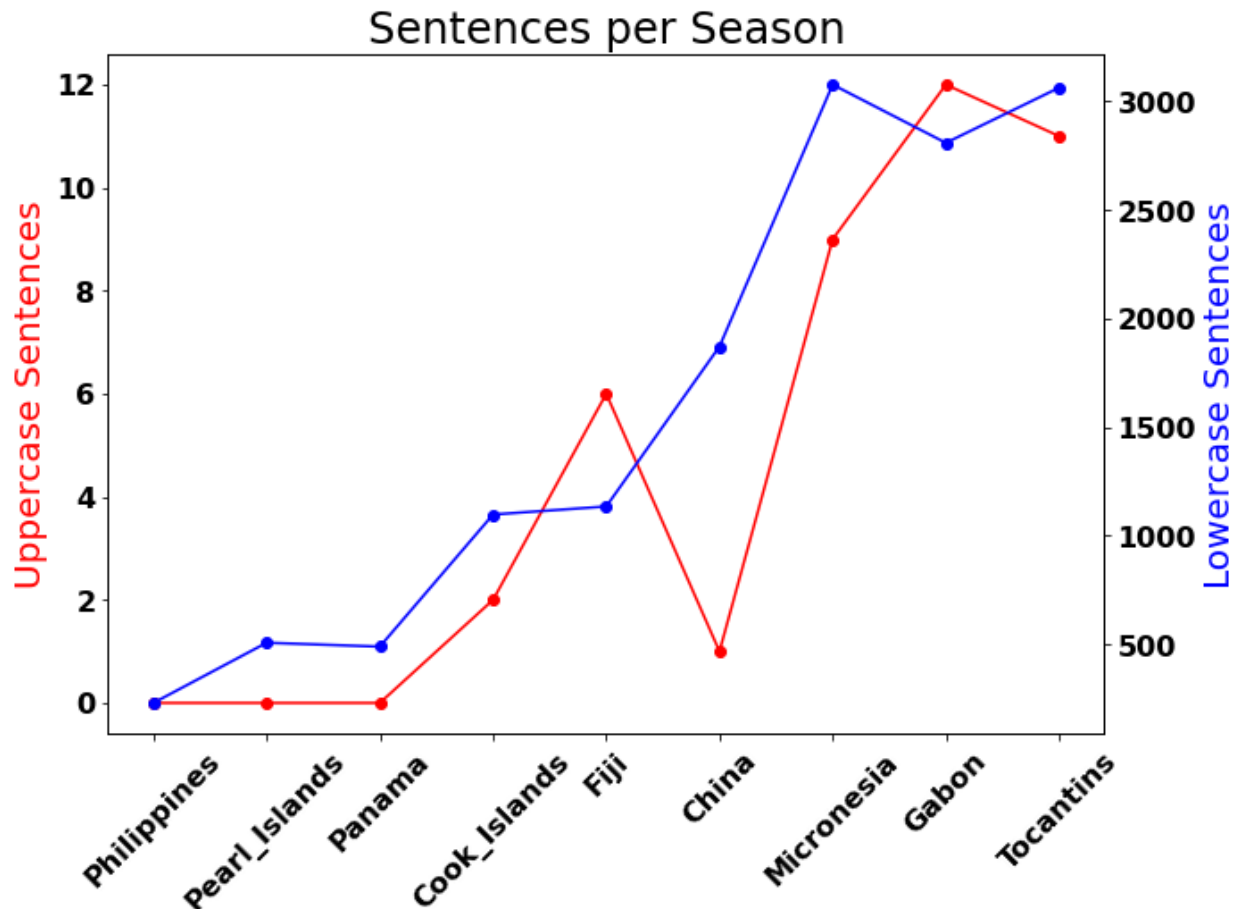


Figure 2. The total number of uppercase and lowercase sentences are shown for each season. The left-hand y-axis denotes the number of uppercase sentences. The right-hand y-axis denotes the number of lowercase sentences. An uppercase sentence is a sentence which consists of exclusively uppercase words. A lowercase sentence is a sentence which does **not** contain exclusively uppercase words. A general upward trend can be seen as the seasons progress.

Another possible metric is looking at the average number of words per section per season (episodes & Thoughts section) (**Fig. 3**). This is a skewed metric, however, as the first Survivor Book Report™ contains only a Thoughts section and I didn't take notes for some episodes of the first few seasons. It also doesn't take into account the episodes that are essentially clip shows, which I skip. It does, however, show that the later seasons have more episodes I felt compelled to take notes for, resulting in a higher average. Tocantins has a clip show episode and yet it rivals

the average word count of Micronesia (a season without a clip show). It also shows that the average number of words per section of the later seasons rivals the total number of words I wrote for the first report. This metric also has Micronesia as the top contender outside the outlier of Survivor: Philippines.

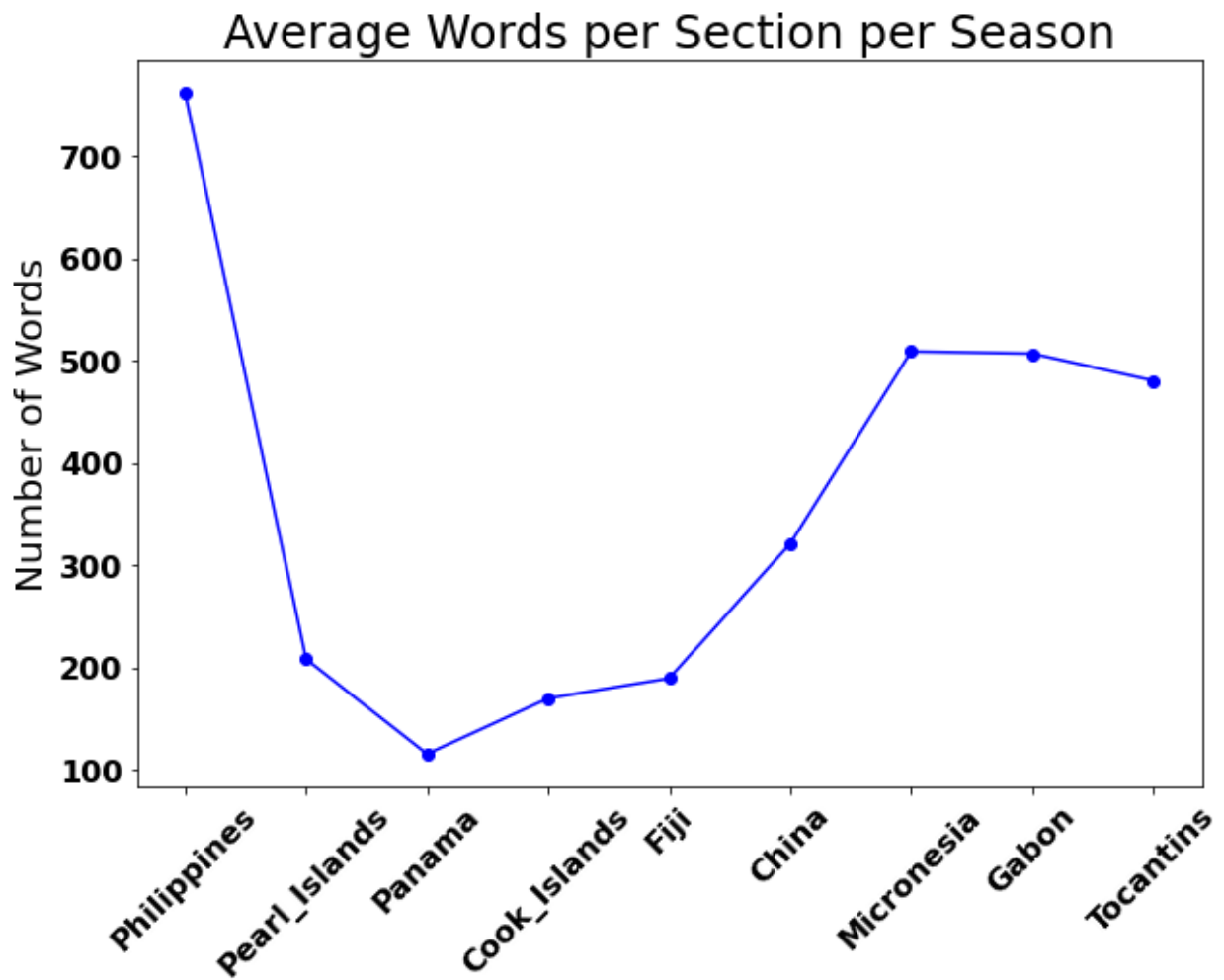


Figure 3. The average number of words per section of the report is shown for each season. Survivor: Philippines is a special case because its report contains only a Thoughts section. Therefore, it does not have episodes with random notes and incomplete thoughts to weigh down its average. The average words per season begins to flatten out in the last three seasons.

The figures up until this point, however, have not included pictures. Survivor: Philippines is a key example of where a picture is worth one thousand words. I had many emotions which I could not display accurately through text. **Figure 4** shows the number of pictures used in each season. This can be used as a metric for when I felt something was especially noteworthy and

needed to be shared (a good metric for engagement with the programming). The Philippines is a clear outlier, for good reason. I had many emotions which needed to be shared about part of the final three. The number of pictures is roughly flat in between that season and Gabon, however. Gabon brought out similar emotions to the Philippines, however, requiring me to take pictures to express my emotions to what was going on on screen.

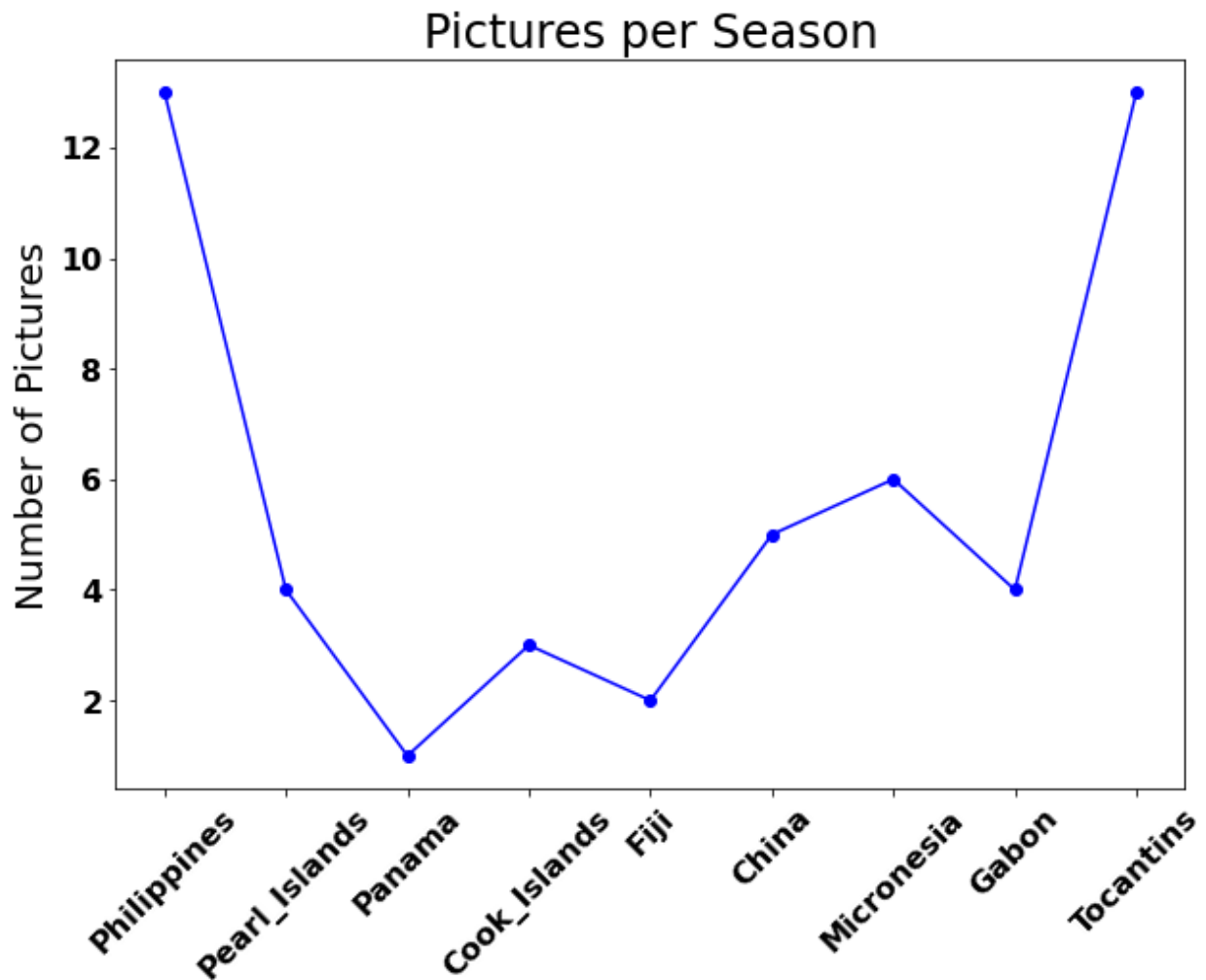


Figure 4. The total number of pictures for each season is shown. Survivor: Philippines and Survivor: Tocantins are outliers to what is otherwise a fairly flat or slightly increasing trend. These seasons contain many scenes which drew strong emotions which required pictures to adequately convey.

When the conversion between pictures and words is made and added to the total number of words, an interesting result appears. **Figure 5** shows a high level of engagement for the first season/report. It also shows that the level of engagement in the show actually continues to increase rather than leveling out like it did when considering only words. This will be interesting to compare with words when analyzing further seasons.

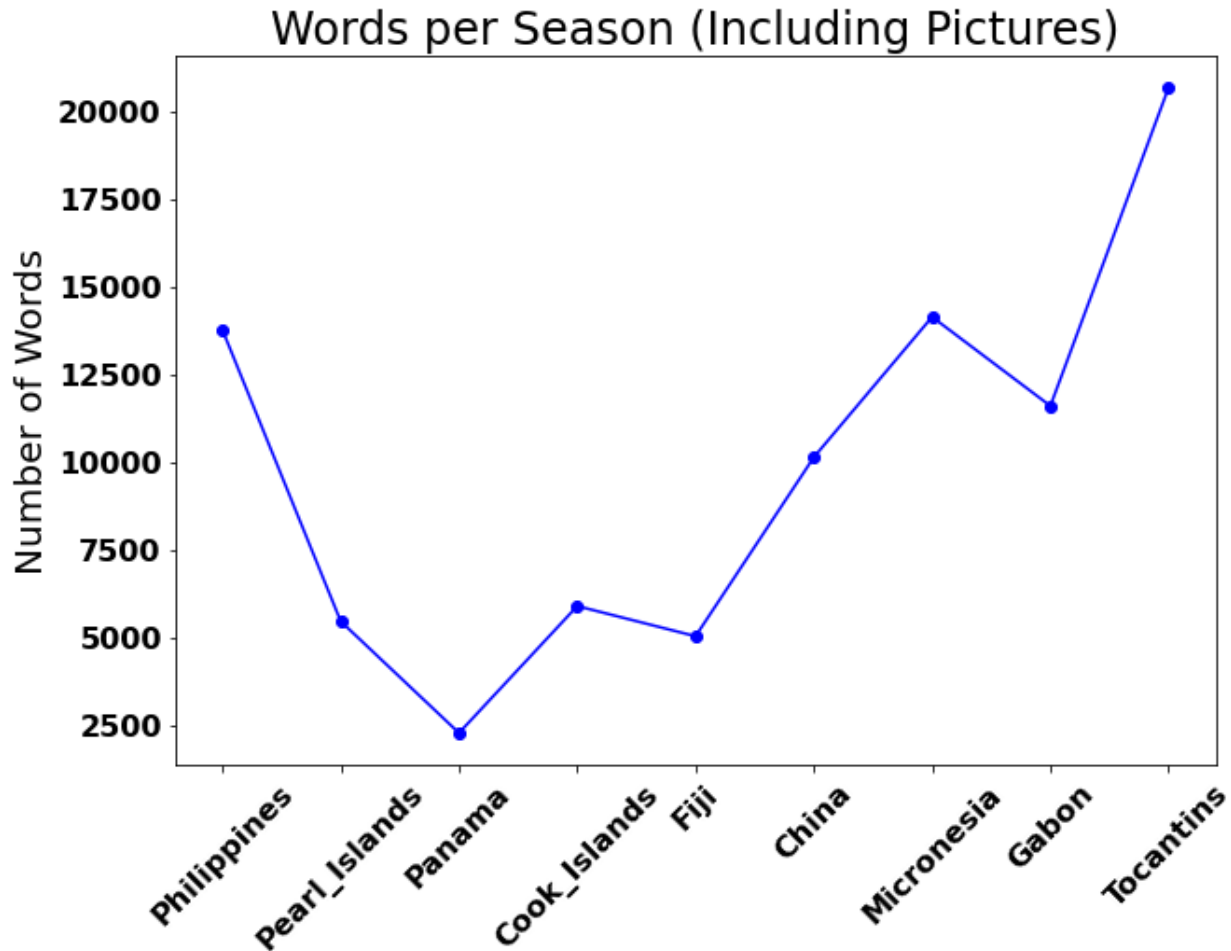


Figure 5. The total number of words with the conversion from pictures to words is shown. A picture is worth 1,000 words. The total number of pictures for each season was multiplied by 1,000 and added to the total word count for that season. Survivor: Philippines is no longer the highest ranked season. A generally increasing trend can be seen as the seasons progress.

The final metric we can look at is the use of punctuation. As stated in Methods, most of the words/sentences in the reports are short thoughts. Therefore, the use of a question mark, exclamation point, or interrobang is indicative of interest, surprise, and overall engagement. The overall use of punctuation throughout the seasons can be seen in **Figure 6**. Like the number of sentences and words, the number of punctuation marks increases as the seasons progress. In early seasons, a question mark usually denoted a question to the rules of the game; however, the majority of question marks in later seasons denotes the questioning of the actions of the players. While a question mark may not seem as intrinsically engaging as an exclamation point, questioning the moves of the players requires a knowledge of the game and a level of attention to what is going on and their long-term goals. The number of question marks for each season is then especially indicative of engagement. For almost each season, question marks are the

predominant form of punctuation used. It is worth noting that Micronesia (highest word count) has the highest occurrence of exclamation points and Gabon (highest uppercase sentence count) the highest use of interrobangs. The highest number of question marks being tied to Tocantins is likely solely due to the actions of Coach.

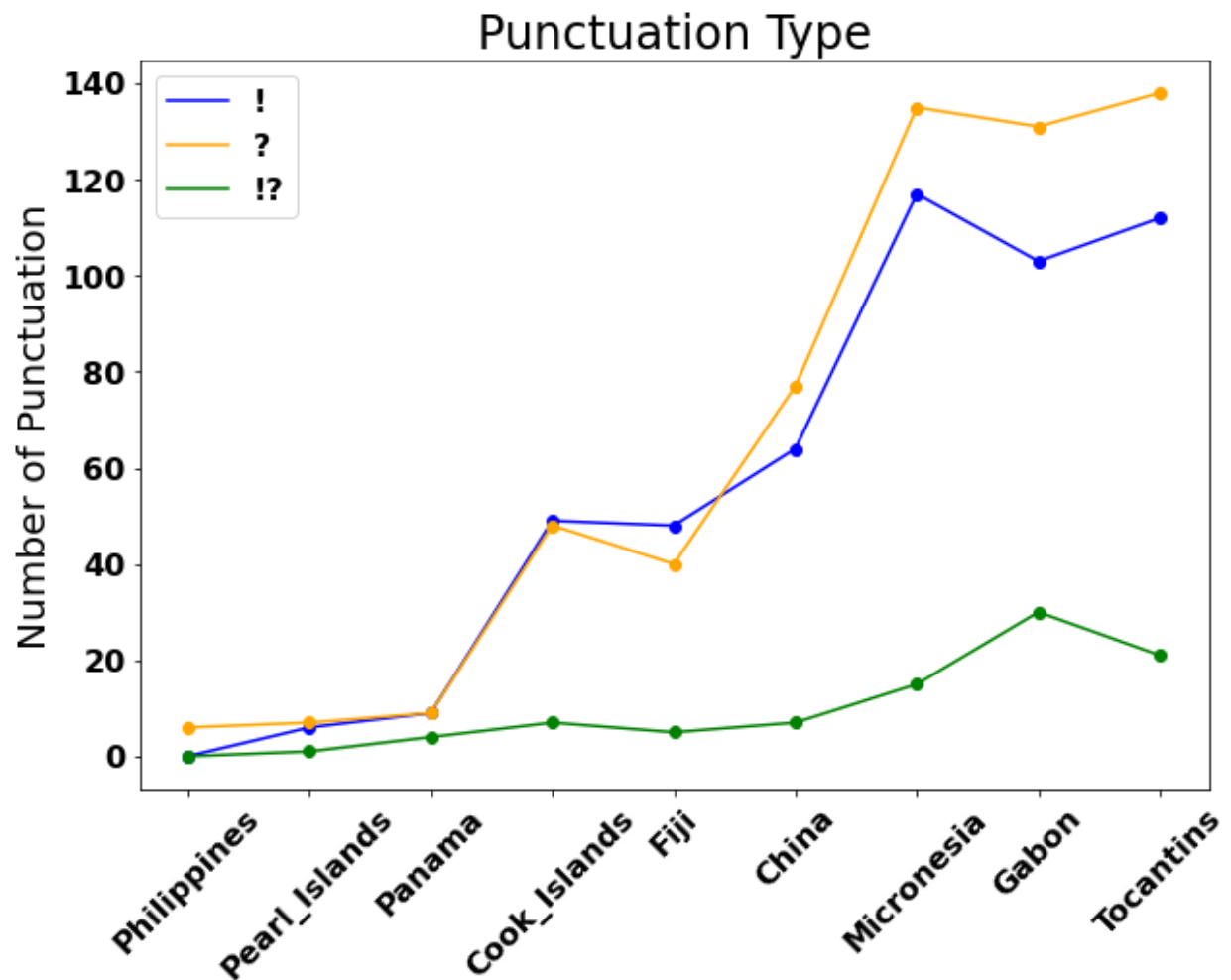


Figure 6. The number of punctuation marks for each season is shown. All varieties of punctuation marks (!, ?, and !?) are shown to increase as the seasons progress. The final three seasons show the rate of change in number of punctuation flattening out, similar to the number of words (**Fig. 1**) and sentences (**Fig. 3**).

As the number of words and overall notes increases, it makes sense that the use of punctuation will increase as well. To look at how the type of punctuation used changes over time, I divided each punctuation type for each season by the total number of punctuation marks used in that season. The results of this can be seen in **Figure 7**. Surprisingly, Survivor: Panama has the highest fraction of interrobangs. Panama ranks lowest in other metrics; but it has the

highest fraction of interrobangs (denoting the most interesting/surprising events). After Survivor: Panama, however, the fraction of each type of punctuation used in a season remains nearly constant.

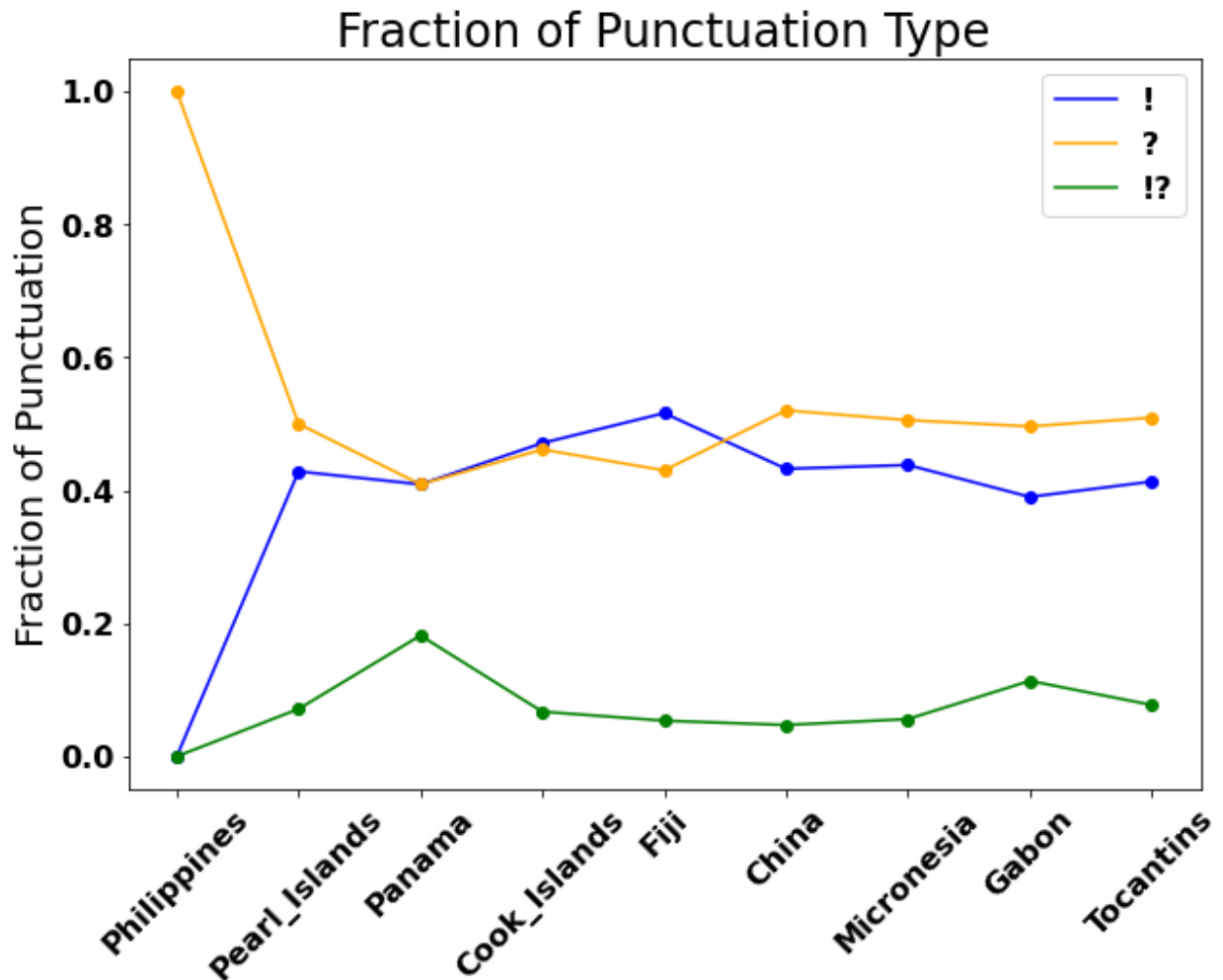


Figure 7. The fraction of each type of punctuation mark per season is shown. Each type of punctuation mark is divided by the total number of punctuation marks for that season. With the exception of Survivor: Philippines (and a slight bump in interrobangs in Survivor: Panama), the fraction of each type of punctuation mark remains largely constant.

There are many things that can impact the metrics I have shared above. Not every season has the same number of episodes. I did not always have notes for each episode in a season. There is also the fact that some seasons have clip shows which do not merit notes. The variance in these factors can be seen in **Figure 8**. A constant throughout each Survivor Book Report™, however,

is the inclusion of a Thoughts section. It is then useful to reexamine the metrics explored above for that section of each season.

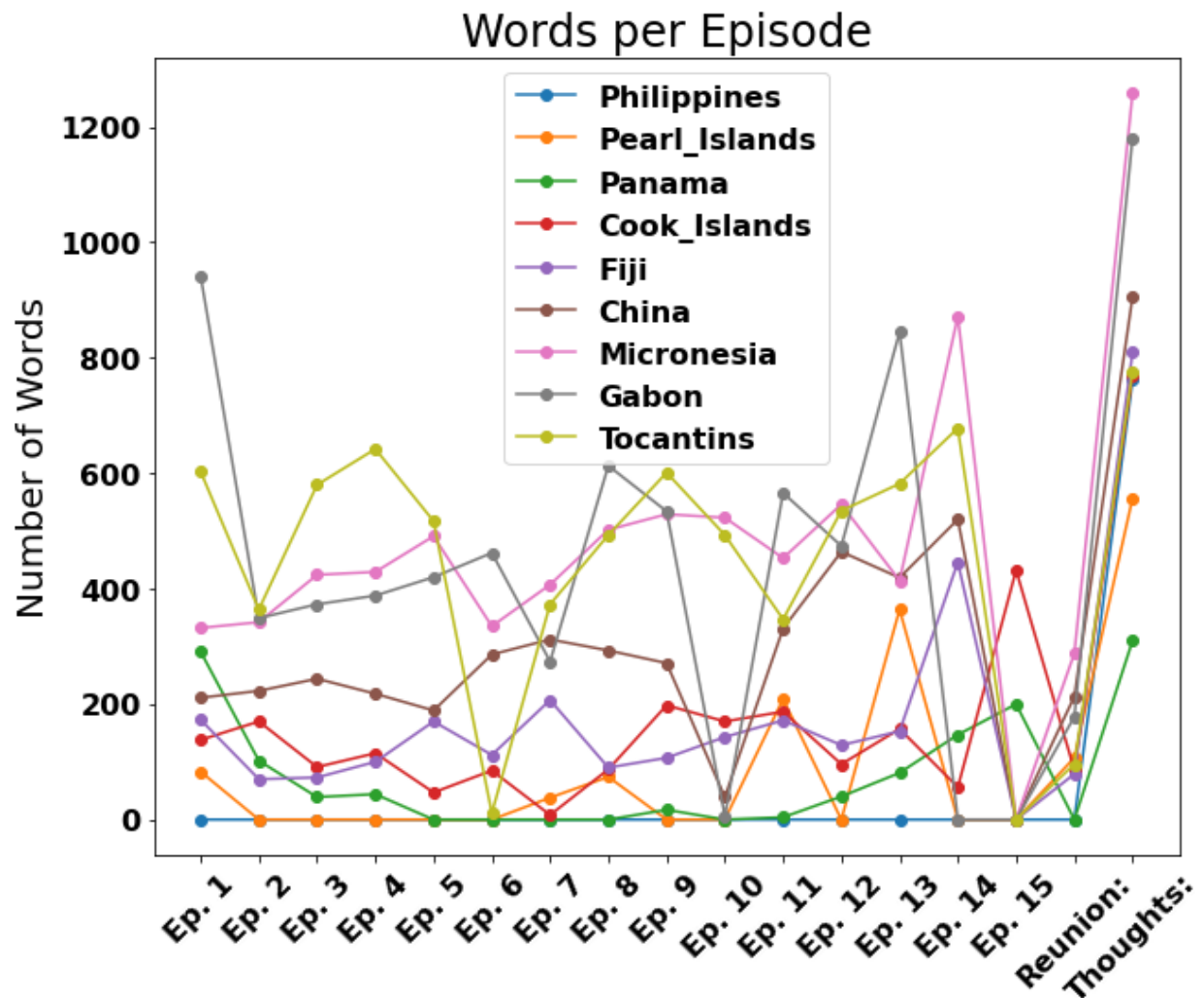


Figure 8. The total number of words for each episode/section for each season is shown. A relative peak can be seen in the finale of each season, with the highest number of words present in the Thoughts section.

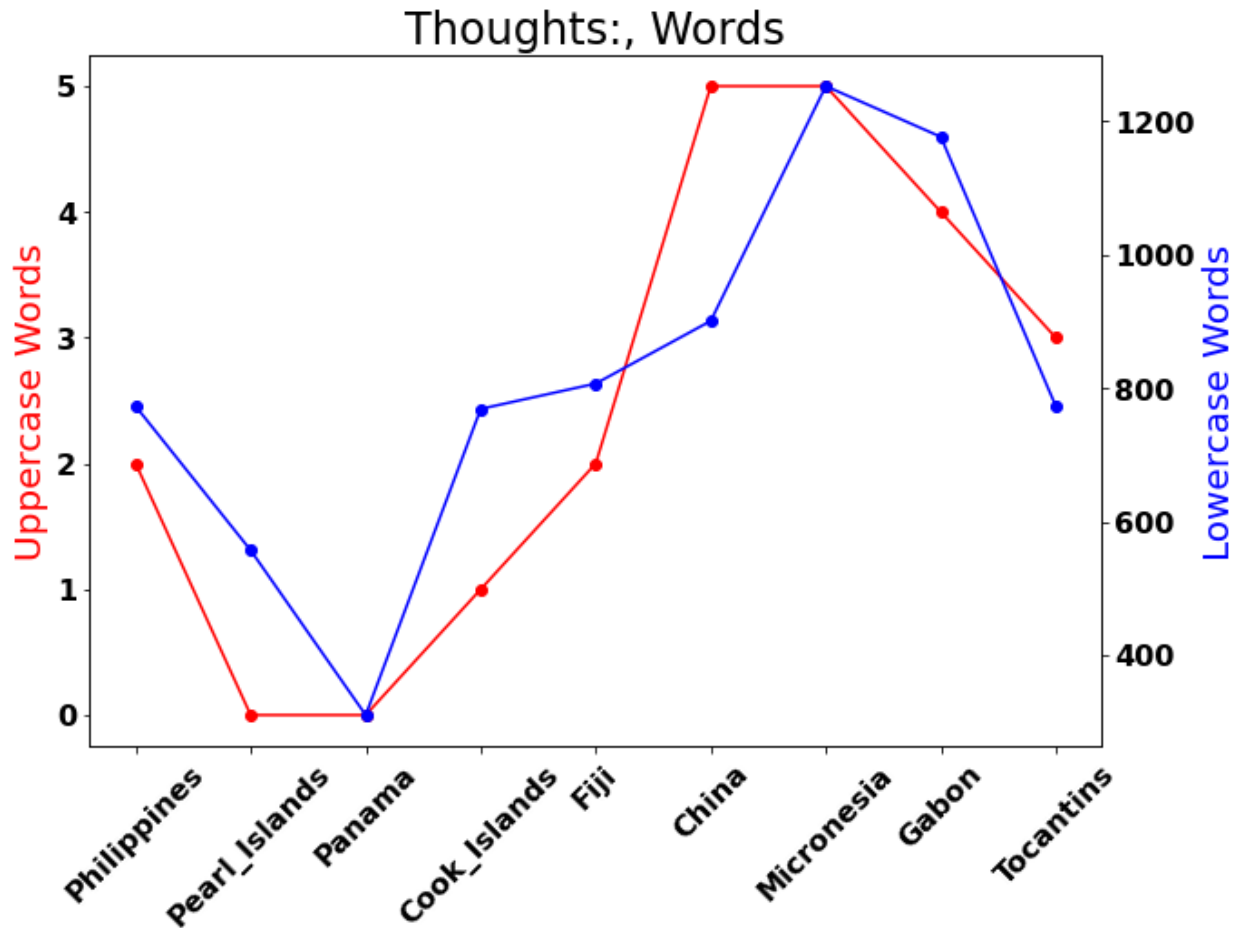


Figure 9. The total number of uppercase and lowercase words are shown for the Thoughts section of each season. The left-hand y-axis denotes the number of uppercase words. The right-hand y-axis denotes the number of lowercase words. A general upward trend can be seen as the seasons progress until Survivor: Micronesia. The final two seasons show a significant downward trend. This suggests that this metric is a good check on the best season of the show.

When including the total number of words and the conversion from pictures to words, Survivor: Philippines is once again a clear outlier (**Fig. 10**). Outside of that point, however, there is once again a clear trend in increasing interest as the seasons progress.

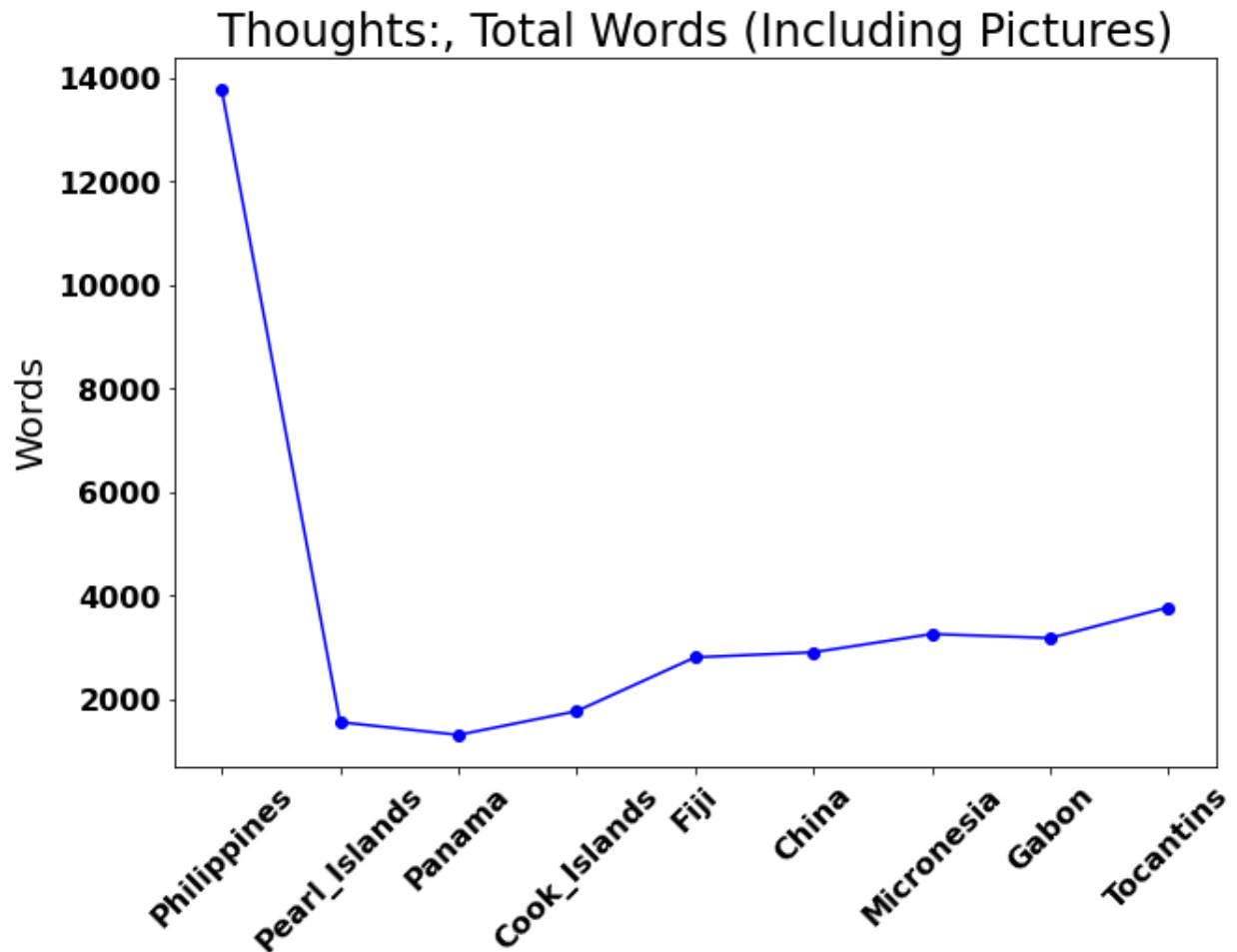


Figure 10. The total number of words with the conversion from pictures to words is shown. A picture is worth 1,000 words. The total number of pictures for the Thoughts section of each season was multiplied by 1,000 and added to the total word count for that section. Survivor: Philippines is a clear outlier because it only has one section (the Thoughts section). Therefore, all the pictures in that season are added to only that section. A slight upward trend can be seen for the remaining seasons.

Punctuation type for the Thoughts sections (**Fig. 11**) shows a completely different result from all previous metrics. This metric has Survivor: Fiji as the most engaging season. This would make sense as it is when my man Yau-Man was introduced; however this does not follow for the seasons following that and, therefore, seems to be unhelpful. The fraction of punctuation types used in each Thoughts section (**Fig. 12**) also seems to be unhelpful in determining interest/engagement.

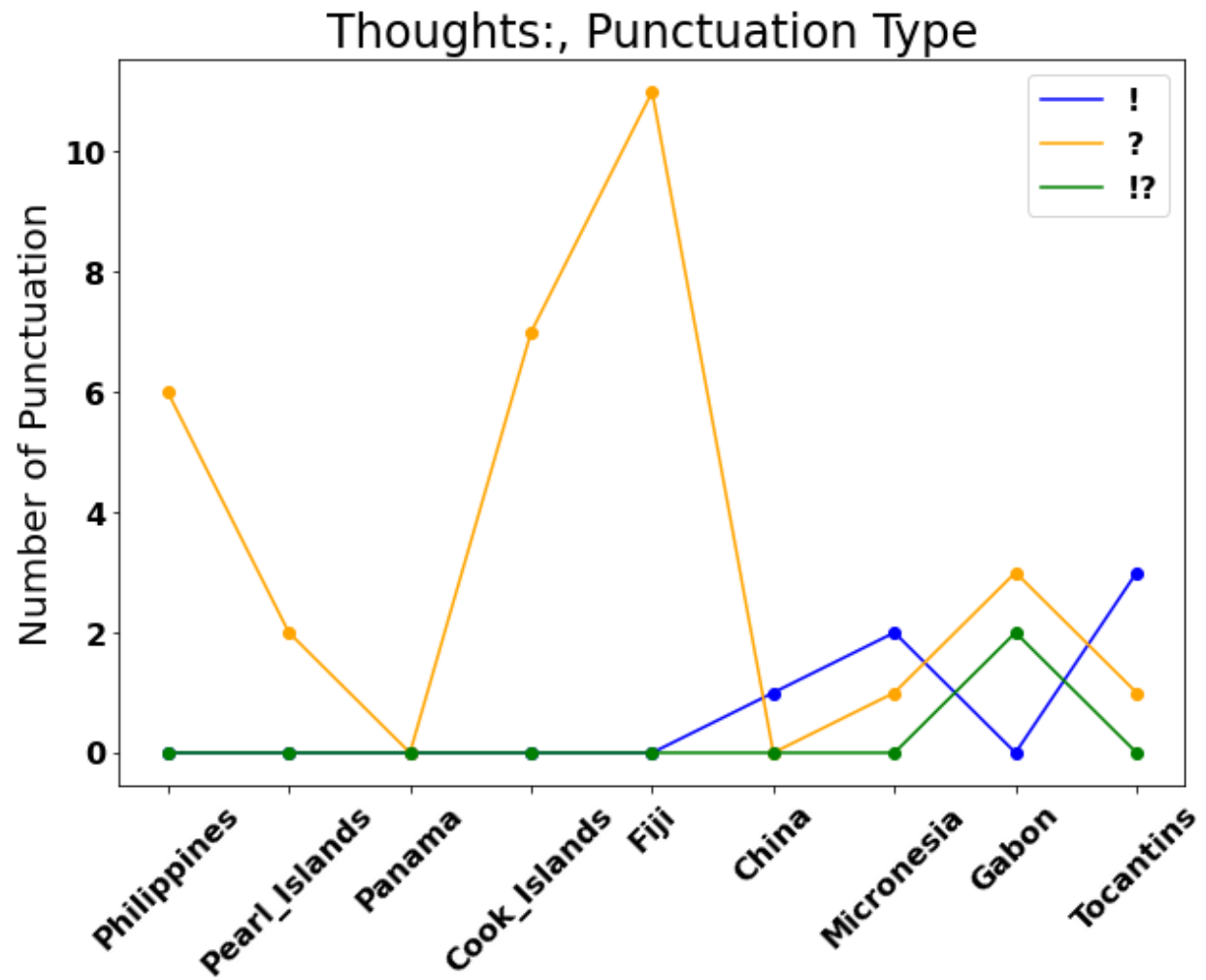


Figure 11. The number of punctuation marks for the Thoughts section of each season is shown. Unlike **Fig. 6**, there is no clear trend in punctuation type of the Thoughts section with season.

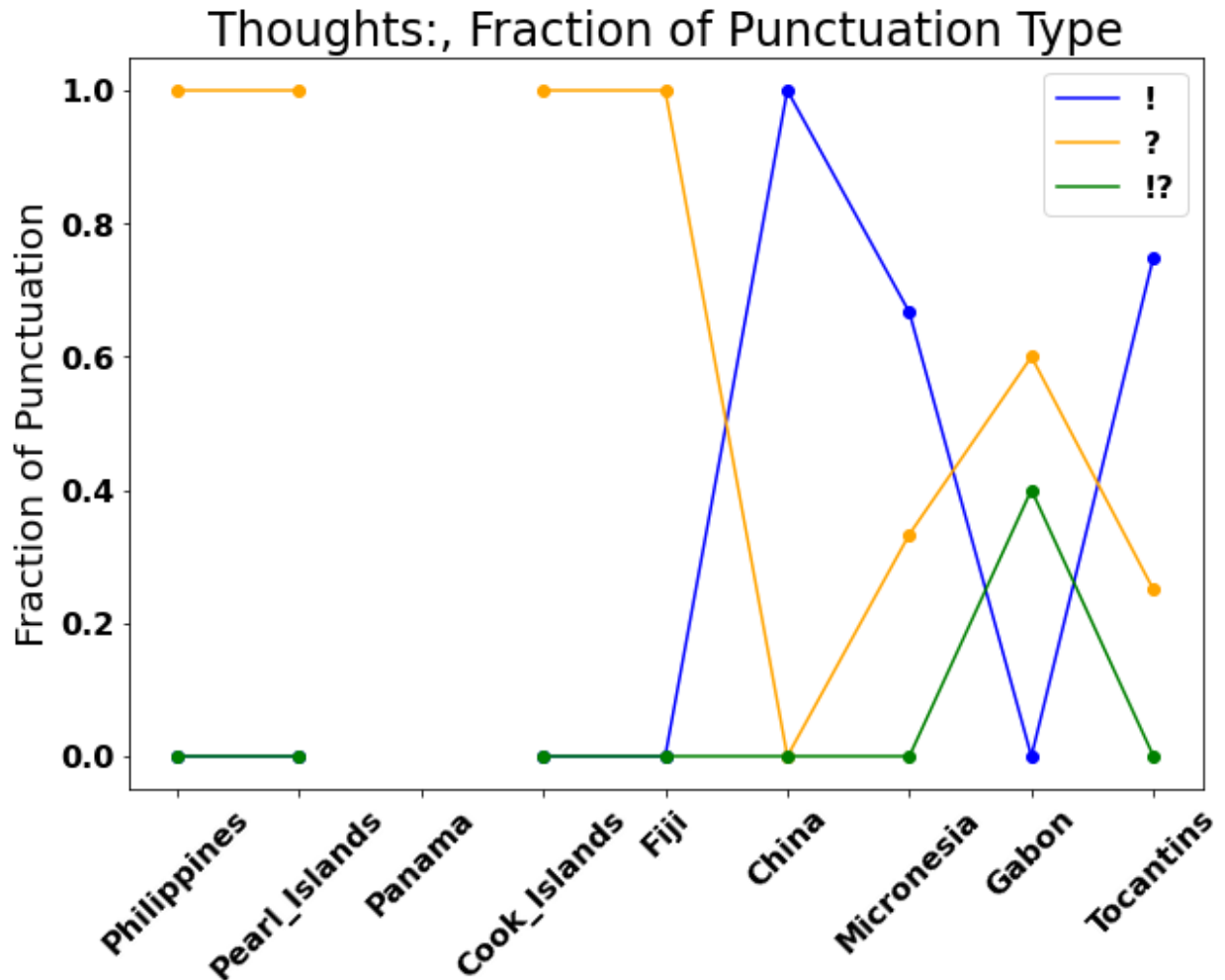


Figure 12. The fraction of each type of punctuation mark in the Thoughts section of each season is shown. Each type of punctuation mark is divided by the total number of punctuation marks for that section. There is no clear trend present. The missing point in Survivor: Panama relates to a lack of any punctuation in the Thoughts section of that season.

4. Discussion and Conclusion

Not every season of Survivor is created equally. Some are more entertaining, engaging, or enjoyable than others. The work in this paper has provided some potential metrics by which to gauge these.

Overall, word count and word count of the Thoughts section of the Survivor Book Reports™ seems to be an accurate way to gauge my engagement and enjoyment of a season. Word count of the Thoughts section has the highest peak for Survivor: Micronesia, which is one of the most entertaining seasons I have seen so far. Meanwhile, word count for the seasons as a whole has

started to plateau around 8000 words. This would suggest that I have now fully invested in the show. As I continue to watch seasons, it may be interesting to see how that number fluctuates on a smaller scale to gauge engagement with a season. Sentence count for each season overall also seems to be plateauing and may show similar results to overall word count.

The average words per episode/section per season has also reached a plateau but seems to be slightly shifting down at the end. I have been fully invested for these last few seasons and have enjoyed them. This may be a powerful metric to explore the quality of the seasons in the future.

The number and fraction of specialty punctuation marks seems to be the least powerful tool. The number of punctuation marks has also steadily increased and begun to plateau. The fraction of punctuation types, however, has stayed nearly constant throughout my viewing. For this to be a more powerful metric, I would need to distinguish between actual questions about how the show works and comments in the form of questions.

Finally, the number of words per season when considering the picture to word conversion seems to suggest that I am continuing to increase my engagement with the show. Both the overall season word + picture count and the Thoughts section word + picture count have (with the exclusion of Survivor: Philippines) largely continued to increase as the seasons go. If this remains true, then by the time I am caught up to present day Survivor I will be Jeff Probst's boss.

In conclusion:

Nothing will be able to stop me. I will be Survivor. I will become the Probst.



Figure 13. Jeff Probst. Image credit (George, 2019)

5. Future work

So, this section was added after seeing the first few episodes of Survivor: Samoa. In my abstract I presented this method as a way of gauging my engagement and enjoyment of the show. I feel that Survivor: Samoa might have very high engagement from the Survivor Book Report™ metrics it creates, but that there will be a large part of that which is not enjoyable.

Acknowledgements

I would like to thank the referee (Laurin Gray) for her careful review of the Survivor Book Reports™ which made this work possible. This research was supported in part by Laurin Gray and her access to Paramount+, the home of Survivor.

References

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Additional Information

Access to the code used for this project may be found through the following link:

https://github.com/ebwhite1994/Survivor_analysis