

A close-up, profile view of Joe Biden and Donald Trump facing each other. Biden is on the left, looking towards Trump on the right. Both are wearing dark suits and red ties. The background is dark and out of focus.

Presidential Debate

Lydia Joanna Luis

Overview

Introduction

- Background
- Research Purpose
- Basic Concepts

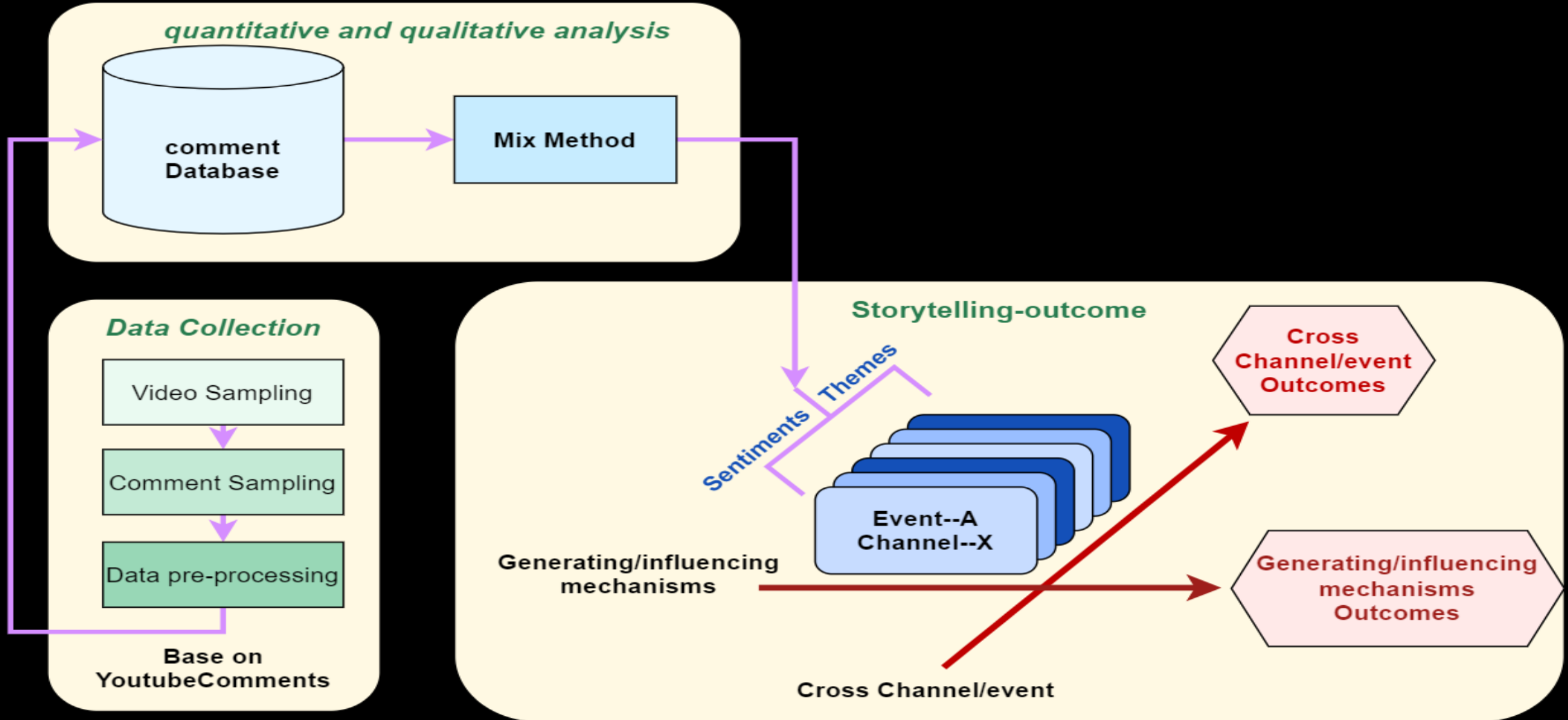
Method

- Mixed Methods
- Data Collection Process
- Innovation

Outcome

- MDCOR
- SENA
- Potential Value

Overview



Introduction——Background



- Research Topic



- Research Data Source



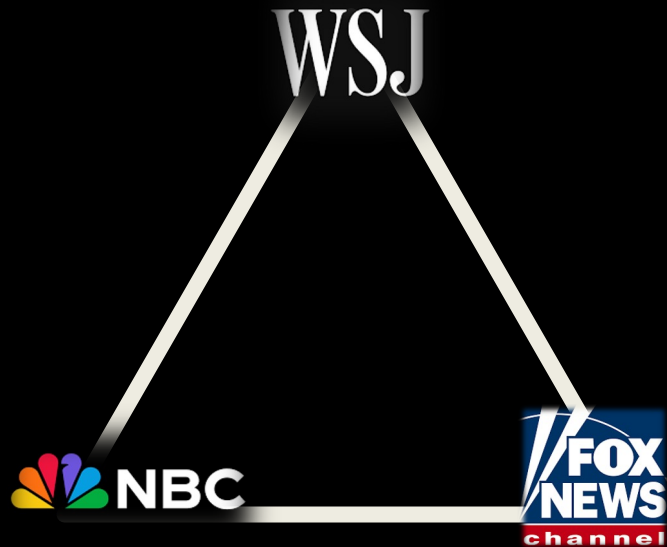
SENA-App-Mac



MDCOR-Mac-App

- Research Tools

Introduction——Research Purpose



Cross-platform event-related perspective



mechanism

◇ Introduction——Basic Concepts

Social Media Data

1.Social media data refer to data generated by people or by their interactions(Danneman & Heimann, 2014)

(1)Typically, these data are posted in public social media platforms

(2)And are based on thoughts, comments, recommendations.

Our data source is Youtube comments.

◆ Introduction——Basic Concepts

Sentiment and Emotional Analysis

Sentiment analysis can automatically extract subjective information and identify it as positive, negative, or neutral.

Emotion Analysis uses more advanced machine learning techniques to analyze more complex emotions like fear, anger, sadness, love, frustration, and many more.

◇ Introduction——Basic Concepts

Quantitative and Qualitative Method

Quan: Quantitative research can be limited, which can lead to overlooking broader themes and relationships. By focusing solely on numbers, there is a risk of missing larger focus information that can be beneficial.

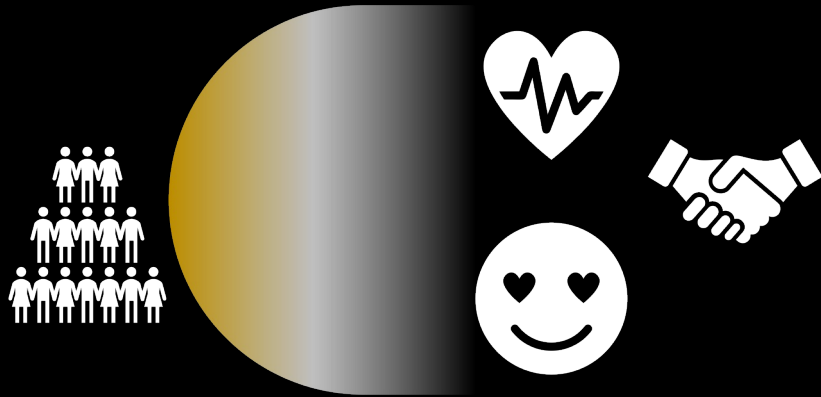
v.s.

Qual: Because of the time and costs involved, qualitative designs do not generally draw samples from large-scale data sets.



Thus we choose the mixed method.

Introduction——Basic Concepts



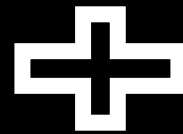
This theory emphasizes the **active role** of media audiences in selecting and interpreting media content to fulfill their **specific needs**.

It could help us understand why individuals engage with political discourse on YouTube and what gratifications they seek from participating in discussions through comments.

Uses and Gratifications Theory (Jay G. Blumler & Elihu Katz, 1974)

Method—Mixed Method

QUANTITATIVE



QUALITATIVE

- accurate
- objective

- easy to understand
- easy to implement

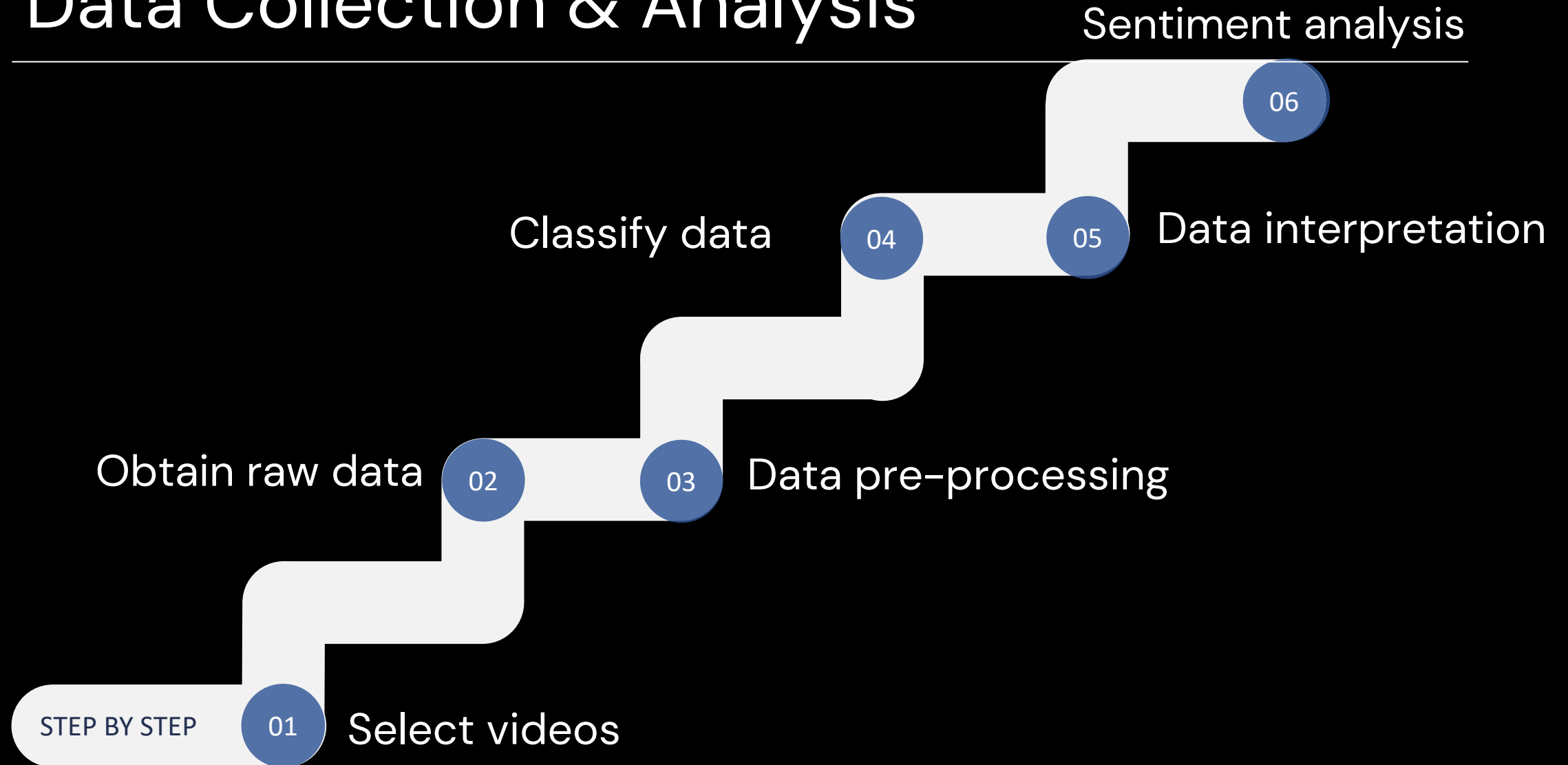
Method—Mixed Method

Advantages:

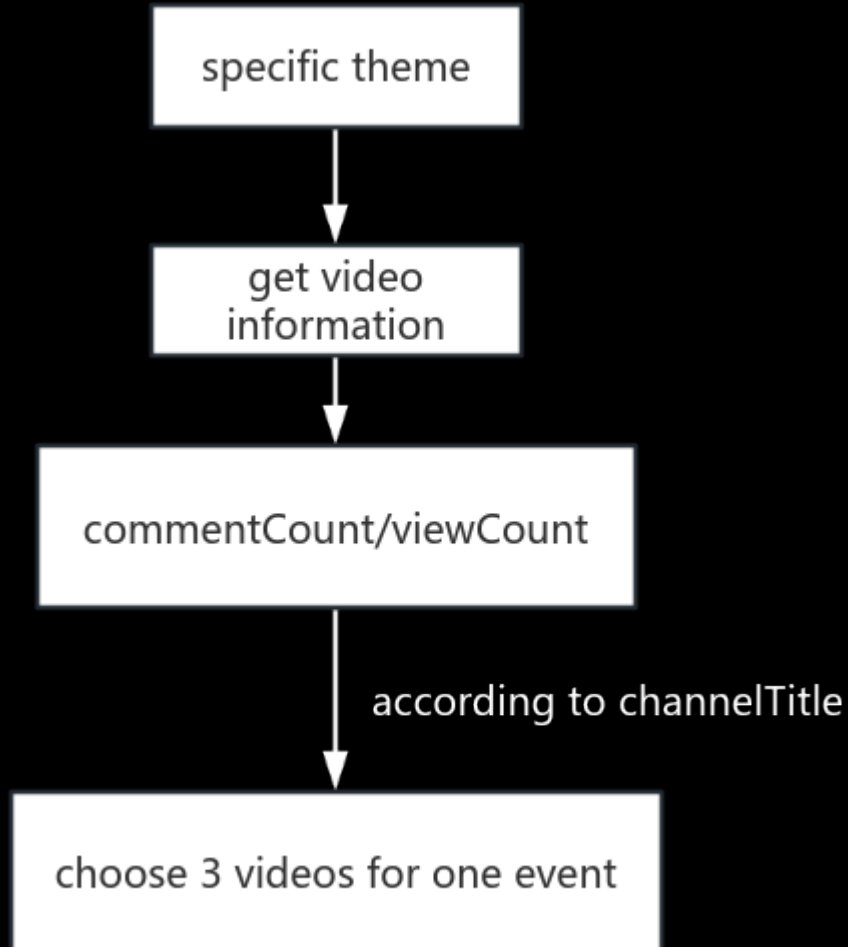
- Enable triangulation to take place.
- Quantitative and qualitative methods compliment each other.

(Migiro, S. O., & Magangi, B. A. (2011). Mixed methods: A review of literature and the future of the new research paradigm. African journal of business management, 5(10), 3757-3764.)

Data Collection & Analysis








Data Collection—Select videos



- video_id
- viewCount
- likeCount
- commentCount
- video_title
- published time
- channelTitle

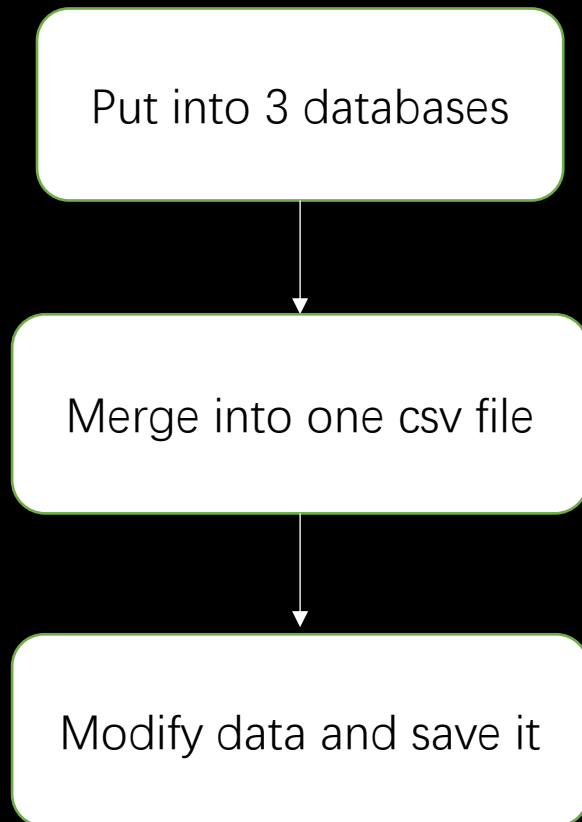
Data Collection—Obtain Raw Data

 Biden
 first_presidential_debate
 Politicians

 Fox.csv
 NBC.csv
 WST.csv

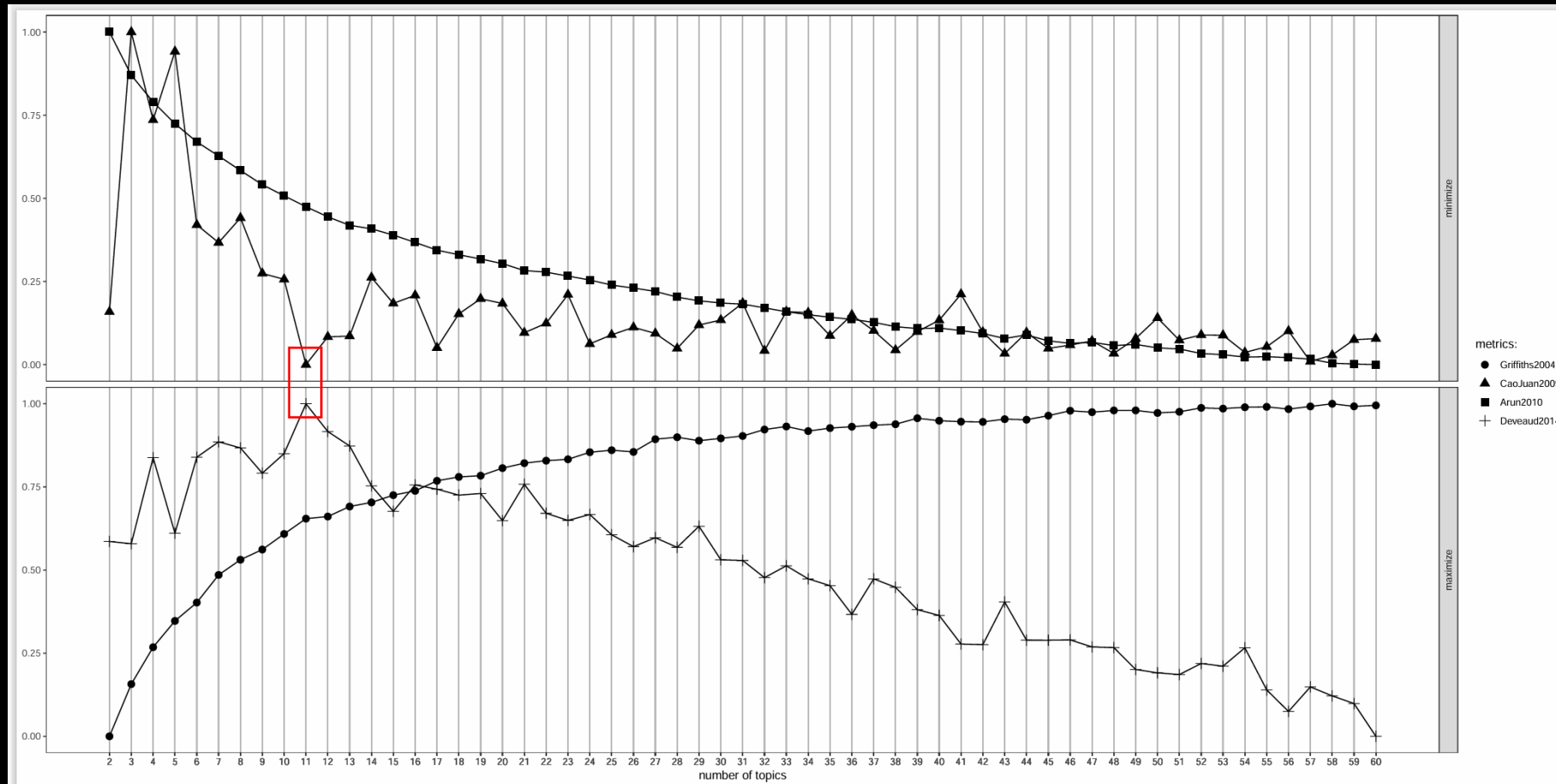
- Comment
- AuthorDisplayName
- AuthorProfileImageUrl
- AuthorChannelUrl
- AuthorChannelID
- ReplyCount
- LikeCount
- PublishedAt
- UpdatedAt
- CommentID
- ParentID
- VideoID

Data Collection--Data Pre-Processing

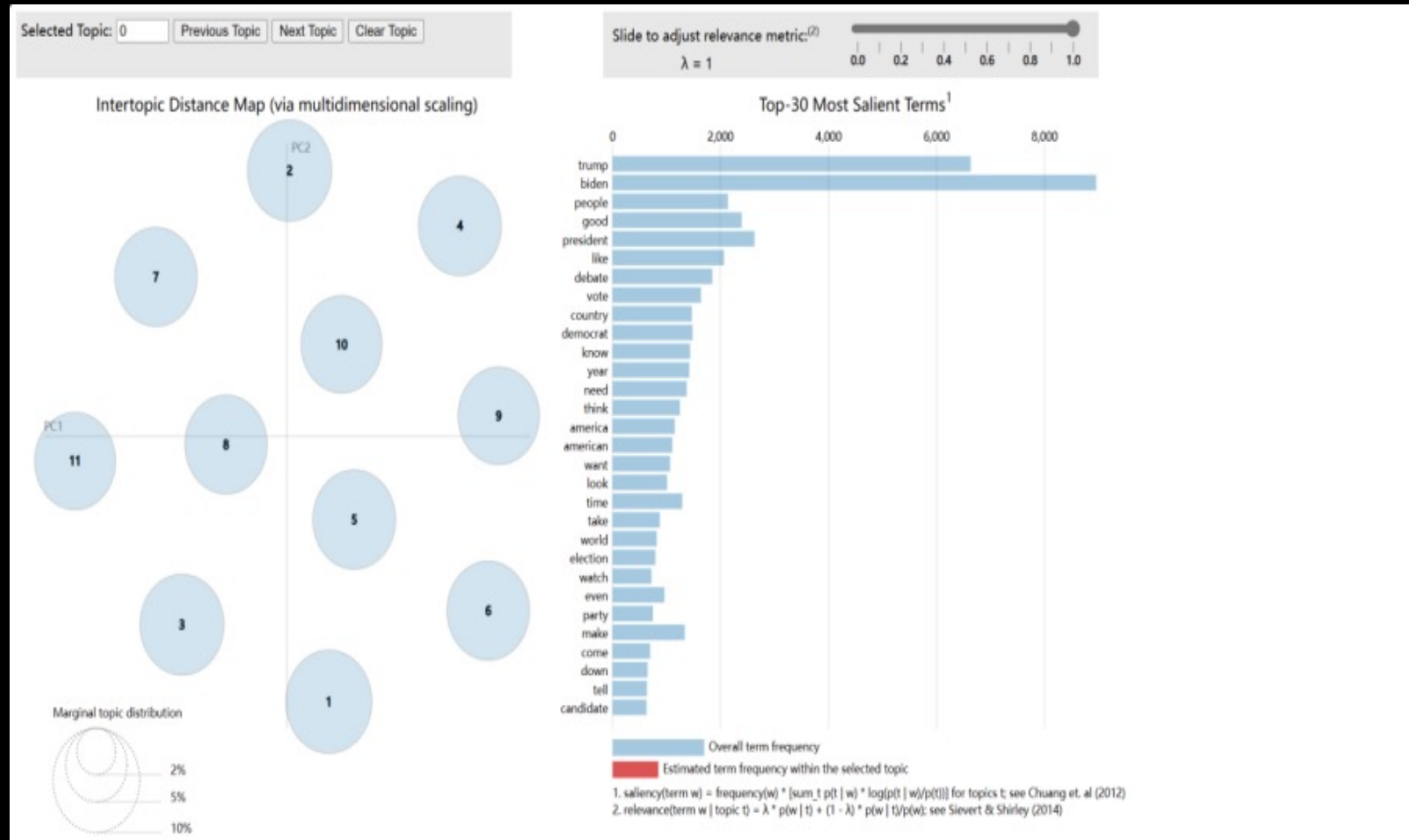


- Comment
- AuthorDisplayName
- AuthorProfileImageUrl
- AuthorChannelUrl
- AuthorChannelID
- ReplyCount
- LikeCount
- PublishedAt
- UpdatedAt
- CommentID
- ParentID
- VideoID
- Event
- Event_chanel

Data Collection– Classify Data



Data Collection– Classify Data



get classified results

Data Analysis—Data Interpretation

MDCOR



SENA

```
<<DocumentTermMatrix (documents: 16986, terms: 53)>>
```

```
Non-/sparse entries: 53759/846499
```

```
Sparsity : 94%
```

```
Maximal term length: 9
```

```
Weighting : term frequency (tf)
```

```
words freq
```

```
1 biden 8155
```

```
2 trump 6076
```

```
3 president 2471
```

```
4 joe 2162
```

```
5 people 2059
```

```
6 like 2017
```

```
7 just 1731
```

```
8 debate 1635
```

```
9 can 1506
```

```
10 country 1341
```

```
11 one 1292
```

```
12 now 1253
```

```
13 years 1154
```

```
14 get 1116
```

```
15 america 1089
```

```
16 democrats 1067
```

```
17 time 1036
```

```
18 vote 1031
```

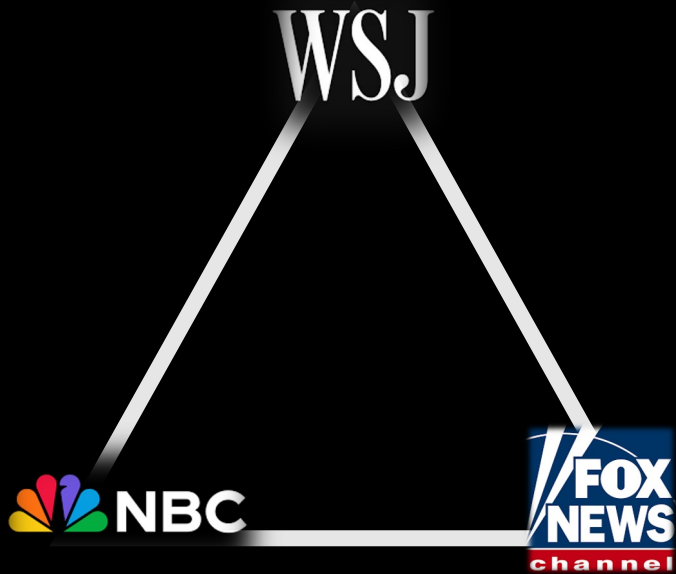
```
19 dont 999
```

```
20 even 944
```

Data Analysis—Sentiment Analysis

```
[1] "Based on the comparison groups in your data, you should see"  
[1] "11 wordclouds and 11 SENA interactive outputs. You will also obtain one"  
[1] "interactive output of sentiment comparison and one PDF with all"  
[1] "dyadic QUAP correlations across all groups."
```

Innovation



SENA-App-Mac



MDCOR-Mac-App



Outcome

Outcome Overview

*Our preliminary result is composed of
Two parts. And We will use visual
results and explanation to present.*

Original Data--

- *original data: csv file with statistic information*
 - *Comment*
 - *AuthorDisplayName*
 - *LikeCount*
 - *PublishAt*
 - *CommentID*
 - *ParentID*
 - *VideoID*
 - *enent_channel*

Outcome--MDCOR

Quantitative Part

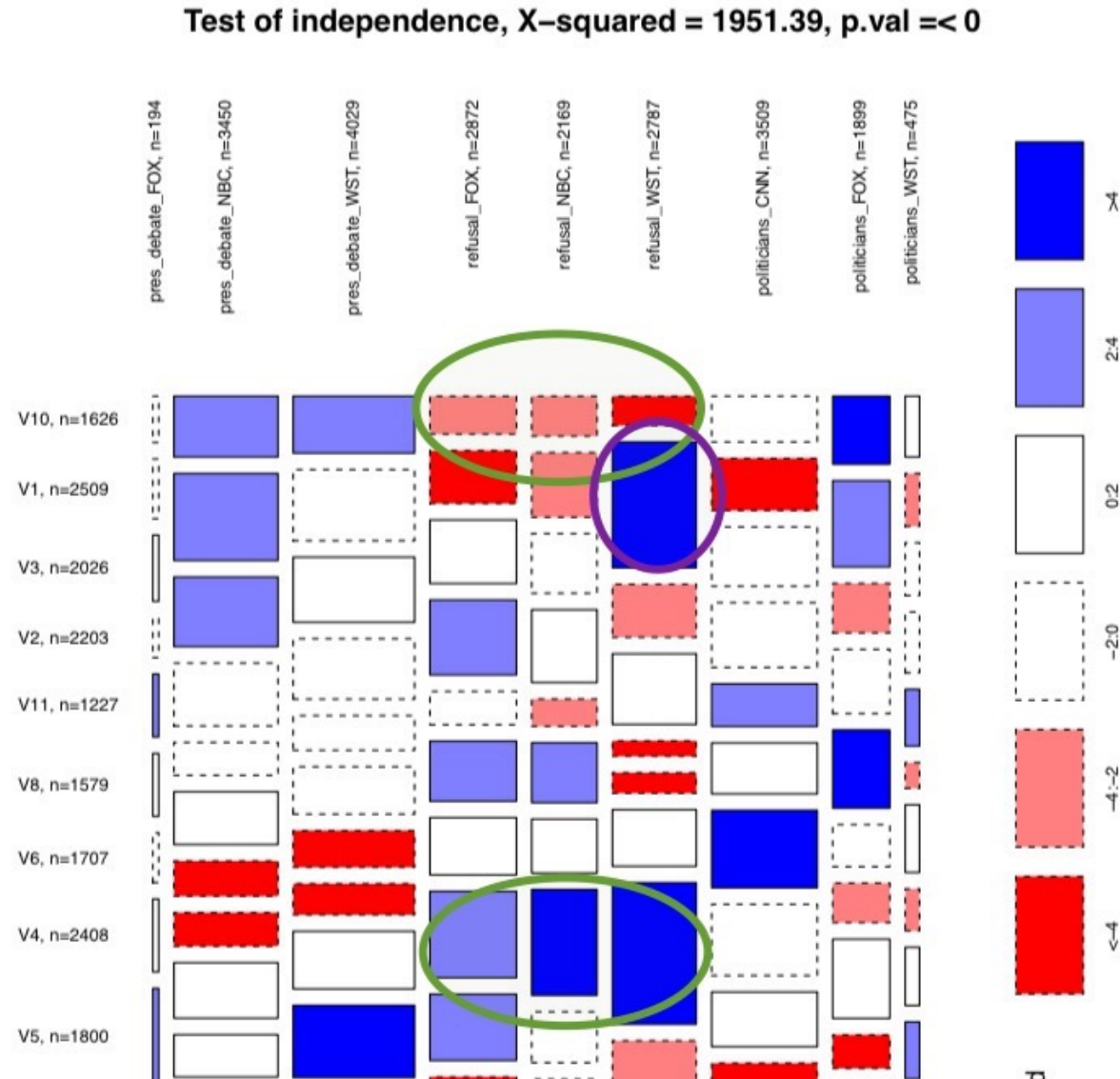
- *Multidimensional word frequency-themes statistical visualization data*
- *Statistical graph of the number of words in the theme perspective*
- *Plot of the theme independence test(Chi-square test)*
- *Comment data with raw topic labels*

Qualitative part

Comment data with topic labels that humans could understand directly.

Based on the quantitative analysis, we read the original data to obtain the qualitative analysis results of the original labels. Which allow us to recognize important nuances and points that may be omitted by Pure quantitative analysis.

Outcome--MDCOR



Key point:

List all the output ✗

Analysis the output ✓

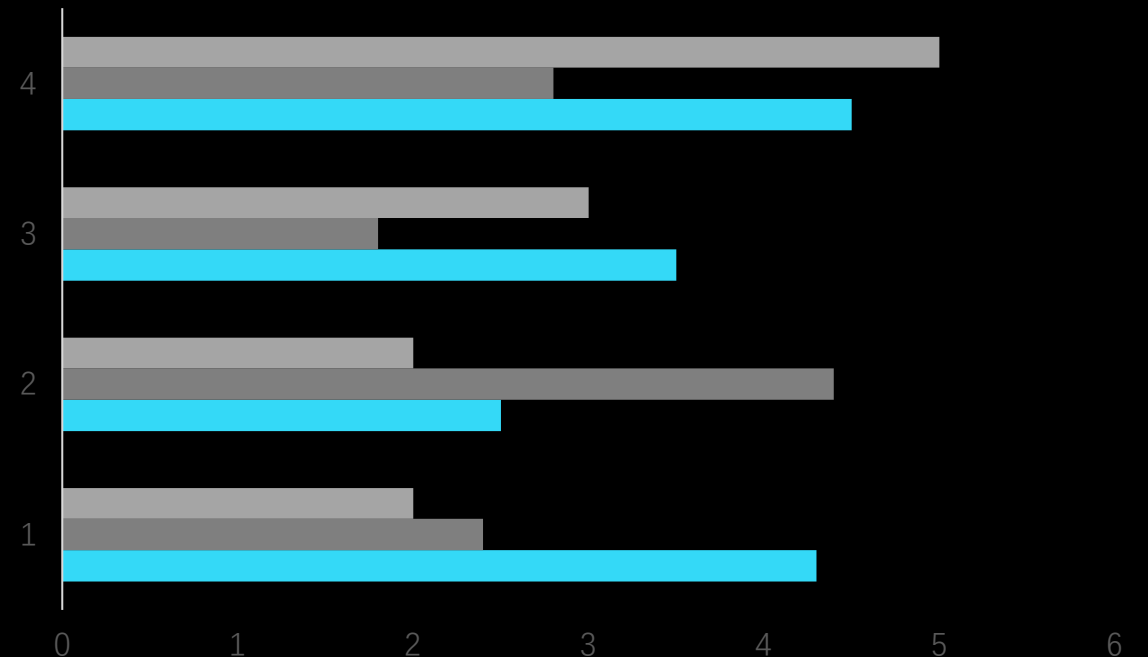
**Figure 1: Plot of the theme
independence test(Chi-square test)**

Outcome——SENA

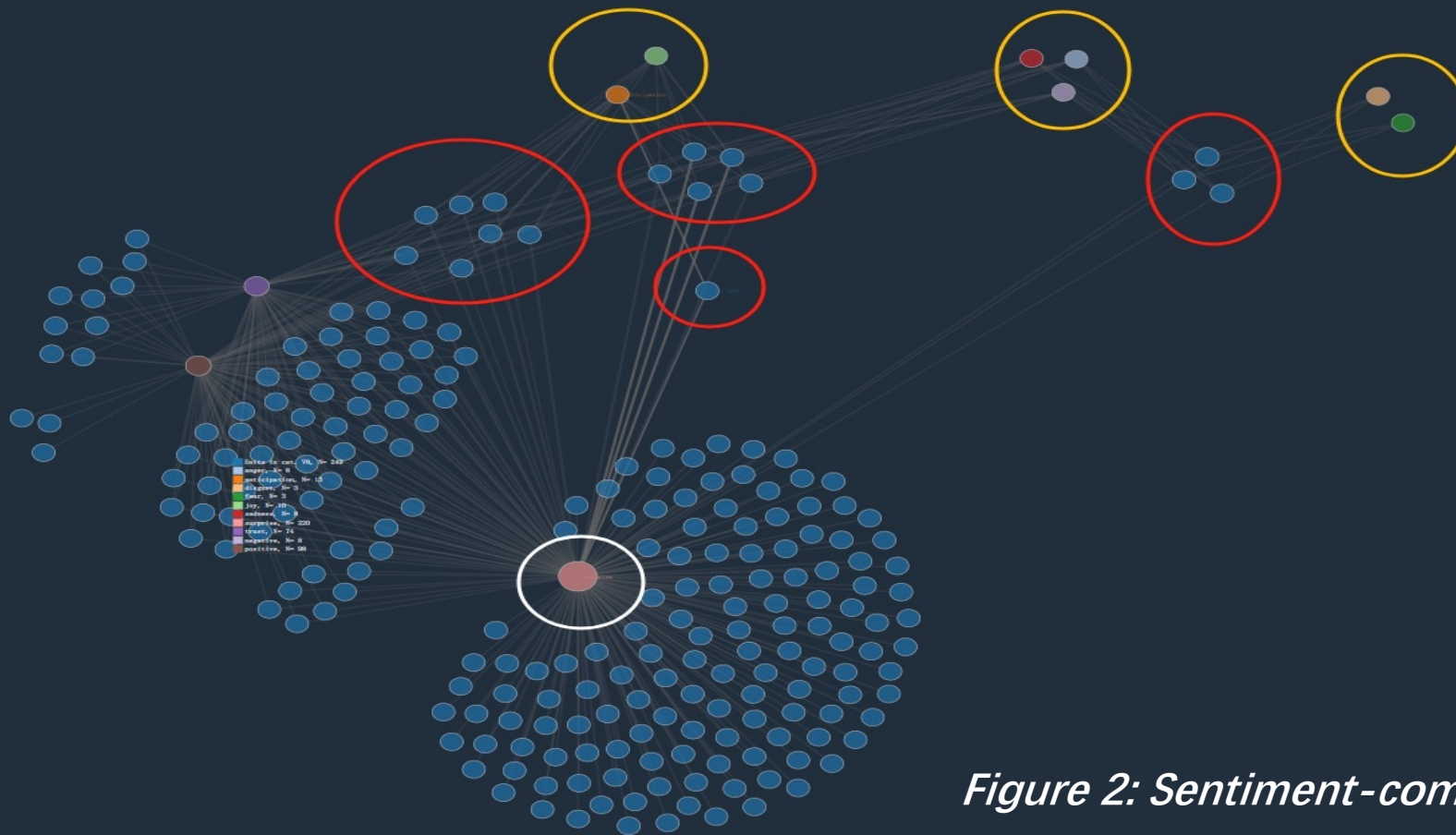
Base on the code of themes.

Sentiment analysis is performed taking into account the differences between different categories

- *Sentiment-comment link graph*
- *Word Cloud*
- *Visualization bar chart of sentiment word count and cross-category comparison*



Outcome——SENA



Outcome——SENA

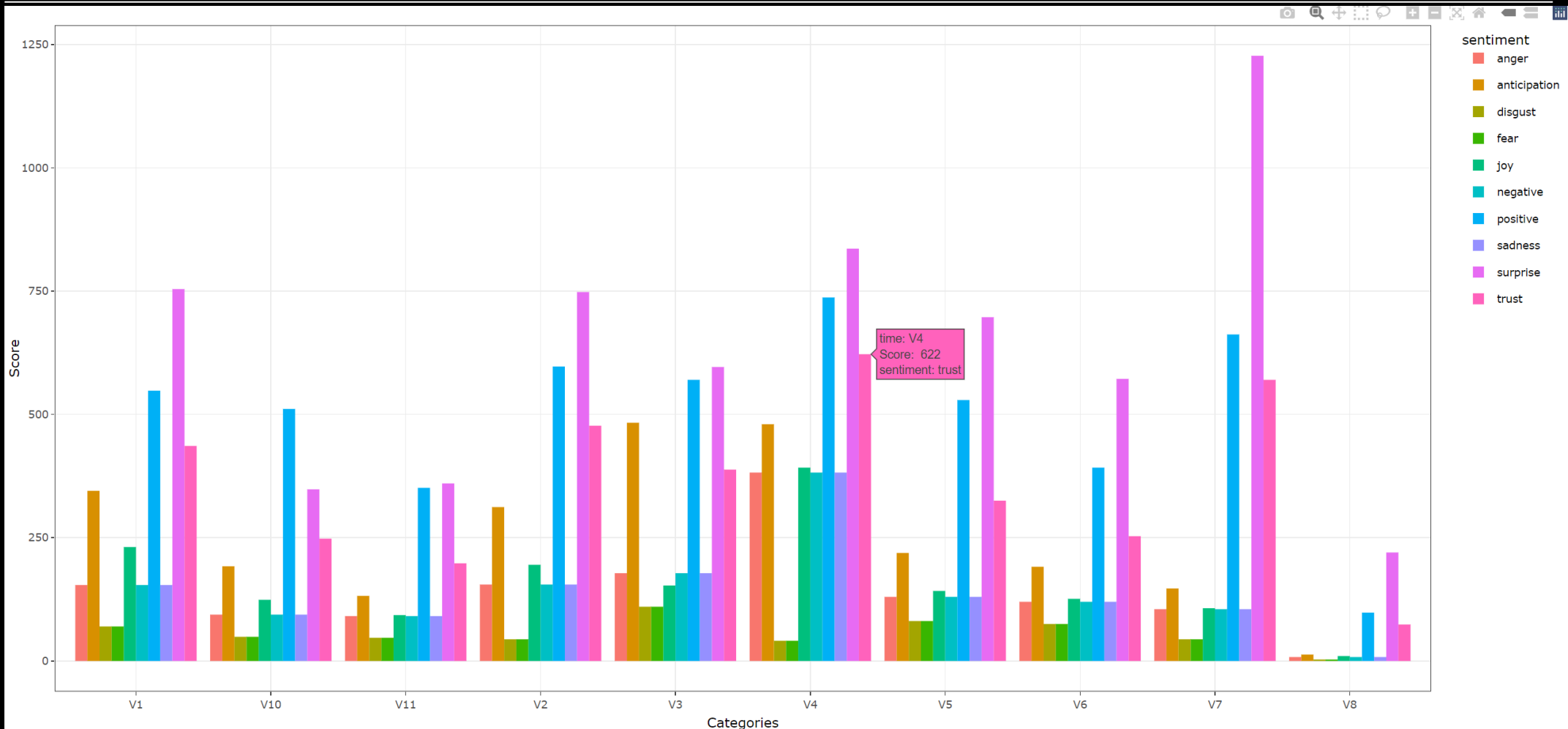


Figure3: Visualization bar chart of sentiment word count and cross-category comparison

Future Work

- Read more relevant paper
- Deeper analysis and better understanding
- Complete theoretical framework
- Build the structure of draft

THANKS



Lydia Joanna Luis

Reference

- [1]An empirical analysis of knowledge co-construction in YouTube comments (Dubovi & Tabak, 2020)
- [2]Leave a Comment! An In-Depth Analysis of User Comments on YouTube(Schultes et al., n.d.)
- [3]Social media analytics for YouTube comments: potential and limitations(Thelwall, 2018)
- [4]RECOMMENDATION OF EFFECTIVENESS OF YOUTUBE VIDEO CONTENTS BY QUALITATIVE SENTIMENT ANALYSIS OF ITS COMMENTS AND REPLIES(Nawaz et al., 2019)
- [5]How useful are your comments?: analyzing and predicting youtube comments and comment ratings(Siersdorfer et al., 2010)