Exploring the Influence of Media Freedom and Survey Language on Democratic Engagement and Interview Length in Ghana

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ABSTRACT

This study explores two key issues in Ghana: the relationship between media freedom and citizens' satisfaction with democracy, and the impact of interview language on interview length using data from 2,369 respondents.

The Chi-squared test revealed a strong link between perceptions of media freedom and satisfaction with democracy. Citizens who viewed media as "completely free" reported significantly higher satisfaction compared to those who saw it as "not free" or "somewhat free." This highlights the critical role of media freedom in shaping trust in democratic systems.

For interview language, the ANOVA test (F = 32.53, p < 1.17×10^{-14}) showed significant differences in interview length across languages. Interviews conducted in less spoken local languages were significantly shorter than those in dominate spoken language, which required up to 8.91 extra minutes. These findings suggest that cultural nuances in local languages influence the depth and duration of responses.

INTRODUCTION AND BACKGROUND

Media plays a crucial role in democracy by fostering communication, engaging citizens, and holding governments accountable. In Ghana, where media freedom shape's public opinion and democratic processes, understanding its impact on democratic satisfaction is very important. Similarly, the choice of language in interviews, especially in a multilingual country like Ghana, affects the quality and duration of data collection.

This study explores two questions:

1. **Is the perception of media freedom associated with citizens' satisfaction with democracy in Ghana?** It examines how Ghanaians' perceptions of media freedom relate to their satisfaction with democracy which explores the influence of media independence on public trust in democratic systems.

2. **Does the primary language used in interviews affect interview length?** The study investigates how using English or local languages like Twi and Ga impacts interview duration, which offers insights into improving research methods in multilingual contexts.

Media Freedom and Democratic Satisfaction

Media freedom plays a critical role in fostering democratic satisfaction by enabling transparency, accountability, and an informed public. According to the United Nations Human Rights Office's report on Media Freedom and Democracy (2023), the absence of media freedom can lead to diminished citizen trust in government and lower levels of satisfaction with democratic processes. Similarly, studies like Norris's Driving Democracy: Do Power-Sharing Institutions Work? (2008) and Organization for Security and Co-operation in Europe (OSCE): The Role of Media in a Democratic Society (2023), argues that media freedom is directly linked to democratic legitimacy and public satisfaction.

In Ghana, which is recognized as a leader in African democracy, media freedom remains a debated issue. Despite progress, concerns about political bias and government influence on the media persist in Ghana ("Africa's Press Freedom Is Under Threat - Prof Karikari," 2013). My research builds on these insights by examining how perceptions of media freedom—categorized as "completely free," "somewhat free," or "not free"—relate to satisfaction with democracy in Ghana. This study examines how people's views on media freedom connect to their satisfaction with democracy in Ghana, a topic that hasn't been studied much before.

Language Dynamics in Qualitative Research

Language plays a crucial role in shaping communication during interviews, especially in multilingual contexts. Studies such as D Rhisiart et al. (2022) in The Role of Native Language Use in Motivational Interviewing, show that using participants' native languages enhances

response quality and interview length, as participants feel more comfortable and motivated. Similarly, Cortazzi, Pilcher, and Jin (2011), in their work Language Choices and 'Blind Shadows': Investigating Interviews with Chinese Participants, found that native language use leads to more detailed and accurate responses. In Ghana, where multiple languages are spoken, language choice significantly impacts interview dynamics which could reflect political and cultural affiliations. In line with this, my research uses data from interviews conducted in English, Twi, and other local languages to investigate how the primary language affects the length of interviews.

This study contributes to political science and qualitative research by addressing two important aspects. First, it fills a gap in understanding how perceptions of media freedom influence democratic satisfaction in Ghana, which elaborates on the media's role in shaping democratic legitimacy in a developing African context. Second, it provides findings that improve qualitative research practices by highlighting how language choice impacts interview dynamics, particularly in multilingual societies. This research offers valuable insights for data collection strategies that enhance the depth of qualitative findings.

MATERIALS AND METHODS

I used a survey data from Afrobarometer's Round 9 survey in Ghana, which offers nationally representative data on citizens' views regarding democracy and governance. The survey used a random probability sampling method, ensuring all eligible citizens had a chance to be selected. The sample included 2,369 respondents aged 18 and above, providing a broad overview of the population. The data collected covered perceptions of media freedom, satisfaction with democracy, and language choice in interviews.

For the research question, **"Is the perception of media freedom associated with the satisfaction of democracy in Ghana?"**, I used two main variables: Perception of Media

Freedom (Q33H) and Satisfaction with Democracy (Q31). Satisfaction with democracy was measured on a scale from 0 (Not a democracy) to 4 (Very satisfied), while Perception of Media Freedom ranged from 0 (Not at all free) to 3 (Completely free). I treated the Perception of Media Freedom as the explanatory variable and Satisfaction with Democracy as the response variable. Both variables were ordinal-level categorical variables, which established the relationship of Categorical-Categorial association (C-C). To clean the data, I replaced levels -1(Missing), 9(Don't know), and 8 (Refused) with NA. For clarity, I collapsed similar levels: in Satisfaction with Democracy, I combined "0" ("Not a democracy") and "1" ("Not at all satisfied") into one group. Similarly, in Perception of Media Freedom, I combined "0" ("Not at all free") and "1" ("Not very free") into one group. This resulted in new levels for both variables, which simplified the analysis.

To simplify interpretation and enhance clarity, I used a contingency table to summarize the distribution of satisfaction levels across different perceptions of media freedom. Additionally, proportions were calculated within each level of the explanatory variable to understand how satisfaction varied across perceptions of media freedom. The statistical method employed for this analysis was the Chi-Square Test of Independence. This test assesses whether the observed association between perception of media freedom and satisfaction with democracy significantly deviates from what would be expected under the null hypothesis of no association. The null hypothesis stated that satisfaction with democracy is independent of the perception of media freedom. After conducting the Chi-Square test, I proceeded with a post-hoc pairwise test to examine the relationships within the categories. The data used in this analysis met all the necessary assumptions for the chi-square test, including a randomly selected sample, all expected counts being greater than 1, and at least 80% of the expected counts exceeding 5.

For the research question "**Does primary language used in interview influence the length of the interview in Ghana?**", I used Primary Language of Interview (Q102) and Length of Interview (LENGTH). The language variable (Q102) is categorical with 7 levels (e.g., 1=English, 260=Twi, 9995=Other), while LENGTH is quantitative, measured in minutes. The explanatory variable is Primary Language of Interview, and the response variable is Length of Interview which established a Categorical-Quantitative (C-Q) relationship. To simplify the analysis, I grouped the less frequent languages (Ewe/Anlo, Ga/Dangbe, Dagbani, Dagaare, and Other) into a single category called "Others," which did not impact the analysis since they are not ordinal categories. Due to the presence of outliers, I focused on analyzing interview durations of up to 120 minutes (2 hours). I trimmed any interview duration that took more than 120 minutes. Interviews duration that exceeded 120 minutes were observed across all language groups. After that I found the mean and standard deviation for each category of language.

The statistical method employed for this analysis was Analysis of Variance (ANOVA). ANOVA is specifically designed to test whether the means of the response variable (interview length) differ significantly across the levels of the explanatory variable (language groups). The null hypothesis stated that the mean interview length is the same across all language groups, while the alternative hypothesis suggested that at least one language group has a different mean interview length compared to the others.

Before conducting the ANOVA, I ensured that the data met its key assumptions:

- Independence of Observations: Each interview was conducted independently, which ensured no overlap or influence between respondents.
- Normality: The interview length within each language group showed some deviation from a normal distribution when tested with the Shapiro-Wilk Test for Normality;

however, due to the large sample and the robustness of ANOVA under the Central Limit Theorem, I proceeded with the analysis.

- Homogeneity of Variances: The variances in interview length across the language groups were approximately equal. This assumption was tested using Levene's Test for equality of variances.

ANALYSIS AND RESULT

Research 1: Is there an association between the perception of media freedom and the satisfaction of democracy in Ghana?

Univariate

To visualize the two categorical variables in this research question, I used a bar chart.

Figure 1.0: Display of a Univariate graph of perception of media freedom in Ghana (Explanatory variable).
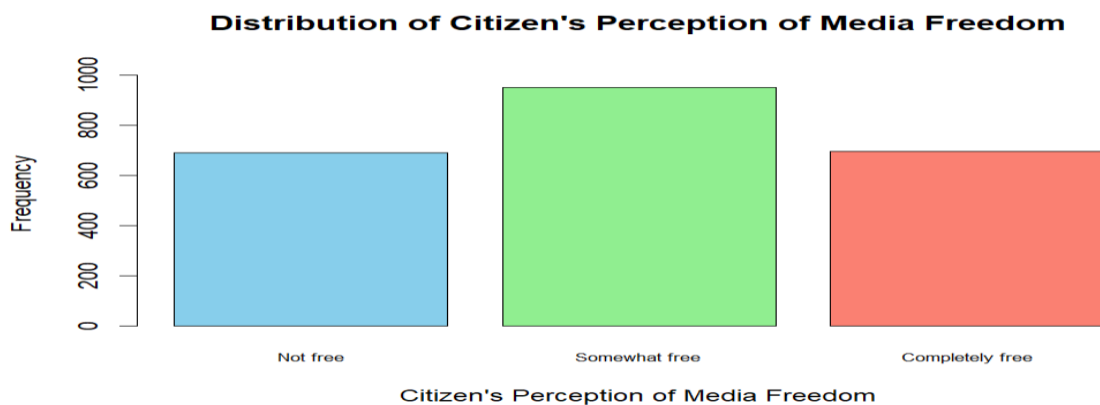

Figure 1.0

In the sample of 2,369 respondents, 29.53% (690) perceived media freedom as "Not Free," 40.69% (951) as "Somewhat Free," and 29.78% (696) as "Completely Free." Additionally, 32 responses were missing (NA).

Figure 2.0: Below is a Display of a Univariate graph of satisfaction of democracy in Ghana (Response variable).

In the sample of 2,369 respondents, 17.84% (420) were not at all satisfied with democracy, 30.80% (725) were not very satisfied, 31.39% (739) were fairly satisfied, and 19.97% (470) were very satisfied. Additionally 15 responses were missing (NA).
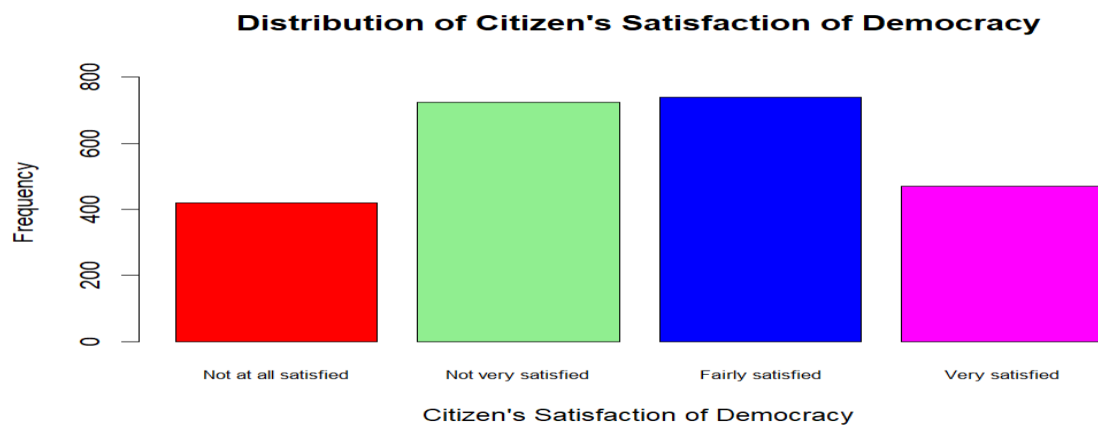

Figure 2.0

Bivariate

To visualize the association between perception of media freedom and satisfaction with democracy, I used a double bar chart to compare the distribution of satisfaction levels across different perceptions of media freedom.

Figure 3.0: A Bivariate graph of satisfaction with democracy and perception of media freedom in Ghana.
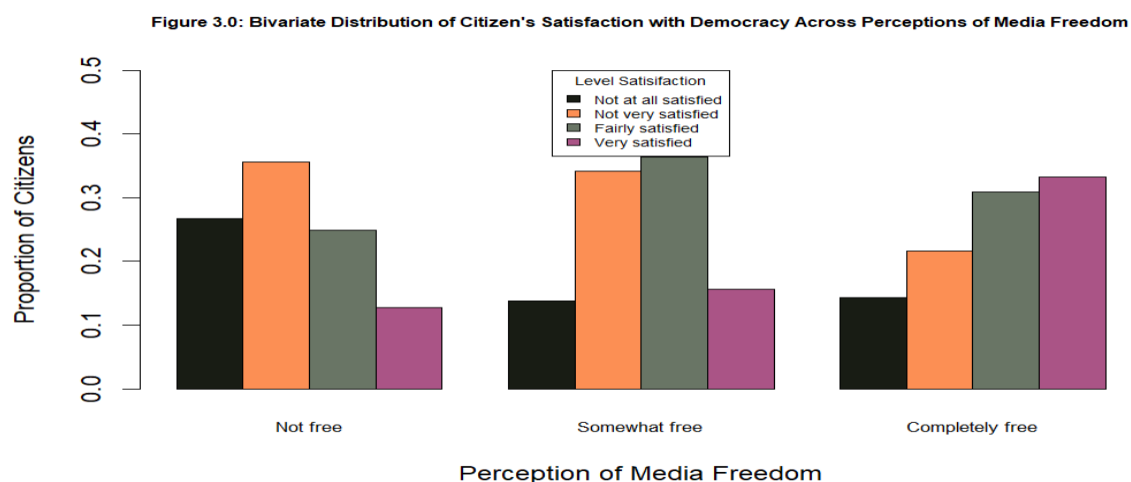

Figure 3.0

The analysis shows that among respondents who are not at all satisfied with democracy, 27% perceive media freedom as not free, 14% as somewhat free, and 14% as completely free. Among those not very satisfied with democracy, 36% perceive media freedom as not free, 34% as somewhat free, and 22% as completely free. For those fairly satisfied, 25% perceive media freedom as not free, 36% as somewhat free, and 31% as completely free. Finally, among the very satisfied respondents, 13% perceive media freedom as not free, 16% as somewhat free, and 33% as completely free.

To proceed with the Chi-Square test analysis, the following hypotheses were formulated:

- Null Hypothesis (H_0): There is no association between the perception of media freedom and citizens' satisfaction with democracy.

- Alternative Hypothesis (H_1): There is an association between the perception of media freedom and citizens' satisfaction with democracy.

The results from the Chi-Square test are presented below.

```
        Pearson's Chi-squared test

data:  cleanData$Q31 and cleanData$Q33H
X-squared = 176.38, df = 6, p-value < 2.2e-16
```

Based on these results, I proceeded to conduct a post-hoc test to further investigate the associations, and the findings are summarized below.

Comparison <chr>	Chi_Square_Statistic <dbl>	Degrees_of_Freedom <int>	P_Value <dbl>
Not Free vs. Somewhat Free	53.57078	3	1.385315e-11
Not Free vs. Completely Free	116.91748	3	3.558275e-25
Somewhat Free vs. Completely Free	79.73435	3	3.499583e-17

3 rows

Research 2: Does the primary language used in an interview influence the length of the interview?

Univariate

I used a histogram to visualize the interview length, which is a quantitative variable (Figure 4.0 and 4.1). Additionally, I used a bar plot to visualize the primary language used in the interview, which is a categorical variable (Figure 5.0).

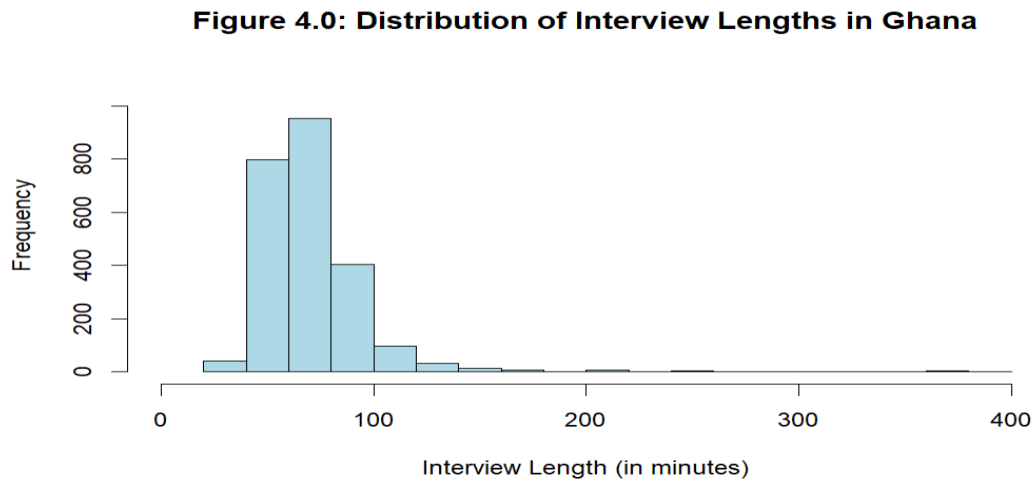**Figure 4.0:** A Univariate graph of length of the interview (with outliers).

Figure 4.0: Distribution of Interview Lengths in Ghana

Figure 4.0

Figure 4.1: A Univariate graph of length of the interview (without outliers)

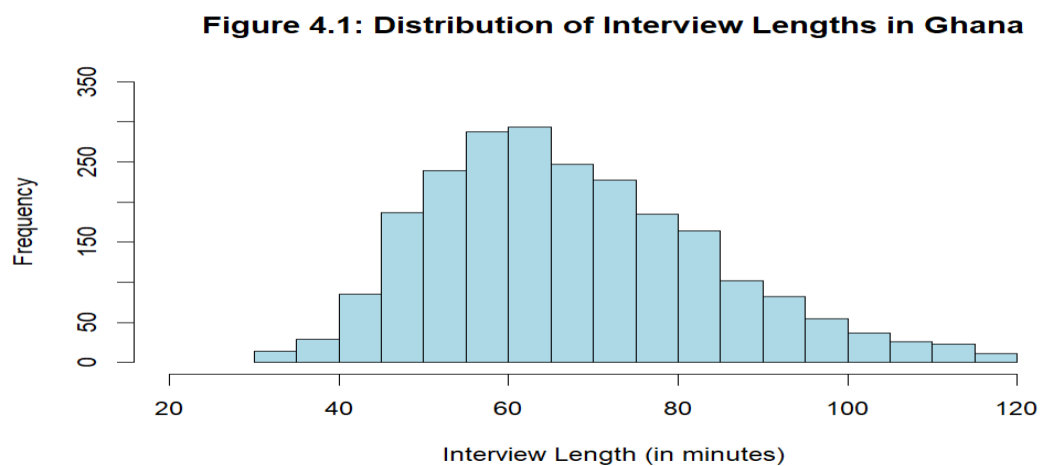**Figure 4.1: Distribution of Interview Lengths in Ghana**

Figure 4.1

Analysis without outliers, the interview lengths ranged from 30 minutes to 120 minutes, with a mean of 67.97 minutes and a standard deviation of 16.46 minutes. The first quartile (Q1) was 56 minutes, the median was 66 minutes, and the third quartile (Q3) was 78 minutes.

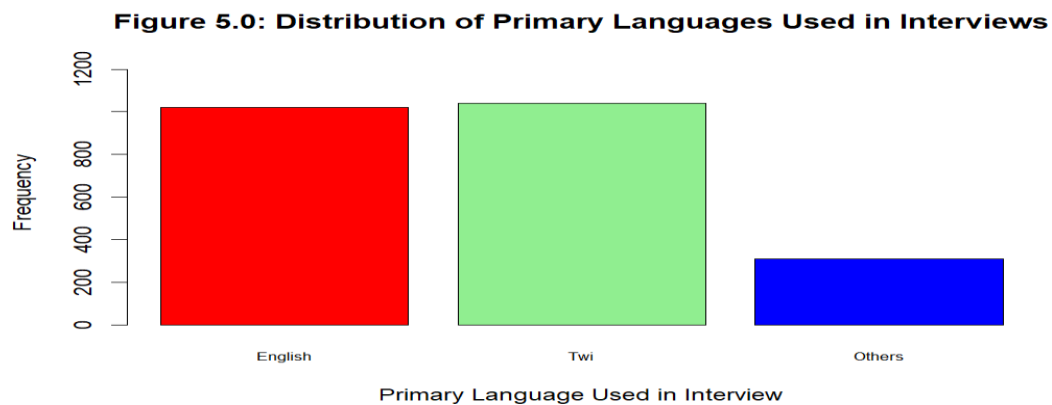**Figure 5.0:** A Univariate Graph of Languages Used in the Interview

Figure 5.0

The distribution of primary languages used in the interviews reveals that 43.14% of respondents were interviewed in **English**, 43.86% in **Twi**, and 13.00% in **other** local languages.

Bivariate

To examine the relationship between the primary language used in interviews and interview length, I used a side-by-side box plot as shown in figure 6.0.
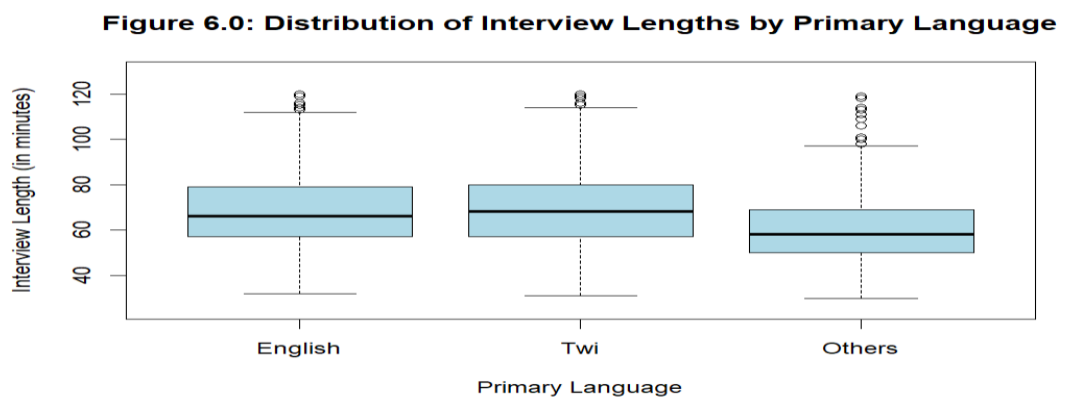

Figure 6.0

English average was 68.52 minutes, Twi average was 69.49 minutes, and other languages average 60.94 minutes. For English, the duration ranged from 32 to 120 minutes, with a median

of 66 minutes and a 1st Quartile of 57 minutes. Twi interviews ranged from 31 to 120 minutes, with a median of 68 minutes and a 1st Quartile of 57 minutes. Other languages range from 30 to 119 minutes, with a median of 58 minutes and a 1st Quartile of 50 minutes.

To proceed with the ANOVA test, result of homogeneity of variance is shown below:

```
Levene's Test for Homogeneity of Variance (center = median)
        Df F value Pr(>F)
group    2  1.3217 0.2669
      2292
Levene's Test for Homogeneity of Variance (center = mean)
        Df F value Pr(>F)
group    2  1.119  0.3268
      2292
```

- **Null Hypothesis (H$_0$):** The mean interview length is the same across all primary language groups (English, Twi, and Other Local Languages).

- **Alternative Hypothesis (H$_1$):** At least one primary language group has a different mean interview length compared to the others.

After conducting the ANOVA test, the results are shown below:

```
                 Df Sum Sq Mean Sq F value   Pr(>F)
cleanData$Q102    2  17152    8576   32.53 1.17e-14 ***
Residuals      2292 604165     264
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
74 observations deleted due to missingness
```

Given the nature of the results, a post-hoc test was conducted, and the summarized findings are presented below.

```
                    diff        lwr        upr    p adj
Twi-English     0.9704933 -0.7319124  2.672899 0.3747853
Others-English -7.5802626 -10.1069272 -5.053598 0.0000000
Others-Twi     -8.5507559 -11.0759870 -6.025525 0.0000000
```

DISCUSSION AND CONCLUSION

For the research **"is the perception of media freedom associated with satisfaction of democracy in Ghana?"**, the Chi-square test of independence resulted a test statistic of $X^2 = 176.38$, **df=6**, and a p-value of $< 2.2 \times 10^{-16}$, indicating a highly significant association

between the two variables. This finding led to rejecting the null hypothesis that there is no association between media freedom perception and satisfaction of democracy. Post-hoc tests also showed significant differences between all pairs of media freedom levels. For example, citizens perceiving media as "Completely Free" were substantially more likely to express higher satisfaction with democracy compared to those perceiving it as "Not Free" or "Somewhat Free." These findings support the conclusion that perceptions of media freedom are strongly associated with democratic satisfaction which underscores the importance of free media in fostering democratic engagement.

For the second research question **of "does the primary language used in interview affect the length of the interview"**, data on interview lengths across **English**, **Twi**, and **Other Local Languages** showed a significant difference. The ANOVA results yielded **F=26.54**, **df=2**, and a p-value of 4.01×10^{-12}, indicating that the mean interview lengths were not equal across the language groups. This led to rejecting the null hypothesis that the mean is equal across all the language used. Post-hoc Tukey tests revealed that interviews conducted in **Other Local Languages** were significantly shorter than those in **English** (mean difference = **-8.74 minutes**, **p<0.001** and **Twi** (mean difference = **-8.91 minutes**, **p<0.001**). Interviews in **English** and **Twi**, however, did not show a significant difference (mean difference = 0.17 minutes, p=0.979). These results suggest that less spoken language in Ghana often require less time while dominate spoken languages required more times, likely due to cultural and conversational nuances.

RECOMMENDATIONS

Based on the findings of this research, my recommendations are two ways: one for Ghana and one for broader survey methodologies in global contexts.

For Ghana, the strong association between **media freedom** and **citizens' satisfaction with democracy** highlights the need to prioritize policies that promote a free and independent

media. This includes strengthening legal protections for journalists, combating censorship, and enhancing transparency in media operations. Policymakers should also focus on fostering public awareness about media freedom's role in democratic governance through civic education campaigns. Such initiatives can help reinforce public trust in democratic institutions and encourage active civic engagement.

For the field of survey methodologies, the significant differences observed in **interview lengths** based on the primary language used underscore the importance of accounting for linguistic and cultural factors during survey design. It is recommended that multilingual surveys implement standardized training for interviewers and optimize translations to balance cultural sensitivity with efficiency. Moreover, investing in further research to explore how language dynamics influence response quality and data collection could greatly improve the reliability of survey outcomes.

LIMITATIONS

The major limitation of this research is its reliance on observational data, which restricts the ability to establish causal relationships between the variables studied. For instance, while a strong association was observed between **media freedom** and **democratic satisfaction**, factors that were not measured such as economic conditions or political stability could also influence this relationship.

Additionally, the findings related to **interview lengths** were based on a specific context and may not generalize to other regions or survey frameworks where different languages and cultural dynamics are at play. These limitations point to the need for future research to validate and expand upon the current findings in broader contexts.

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