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Social Media Usage and Self-Esteem Survey Report

By

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# Introduction

This report presents the findings of a survey conducted to understand the relationship between social media usage and self-esteem. The survey was designed using Google Forms and distributed among friends and relatives who volunteered to participate. The aim was to collect data on participants' self-esteem ratings, time spent on social media, and their usage of different social media platforms.

# Methodology

## Data Collection

The data collection process involved designing a survey on Google Forms. The survey included questions related to participants' self-esteem, time spent on social media, and the specific social media platforms they use. Additional questions were included to understand how participants feel about comparing themselves to others, feeling positive or negative, and feeling pressured to post on social media.  
The survey was shared with friends and relatives who agreed to participate. Their responses were collected and exported as an Excel file for analysis.

## Data Management

The data collected from the survey was imported into Python for analysis. The initial steps involved inspecting the data for any inconsistencies or missing values. The columns were cleaned and stripped of any leading or trailing spaces. Relevant columns were selected for analysis, including age, self-esteem ratings, time spent on social media, and the platforms used.

## Data Analysis

Descriptive statistics were calculated to summarize the main characteristics of the data. This included mean, standard deviation, and distribution of the variables.  
Correlation analysis was performed to understand the relationships between self-esteem ratings, time spent on social media, and age. Visualizations were created to provide a clearer understanding of these relationships.

# Findings

## Descriptive Statistics

The descriptive statistics for the numerical variables in the dataset are as follows:

Age Self\_Esteem\_Rating Time\_Spending\_on\_Social\_Media  
count 51.000000 51.000000 51.000000  
mean 25.529412 6.803922 6.227451  
std 4.759634 2.306683 3.537009  
min 17.000000 1.000000 1.000000  
25% 22.500000 5.000000 4.000000  
50% 25.000000 7.000000 5.000000  
75% 27.500000 8.000000 8.250000  
max 37.000000 10.000000 16.000000

## Correlation Analysis

The correlation matrix shows the relationships between the numerical variables:

Age Self\_Esteem\_Rating Time\_Spending\_on\_Social\_Media  
 Age 1.000000 0.042434 -0.154134  
Self\_Esteem\_Rating 0.042434 1.000000 -0.075074  
Time\_Spending\_on\_Social\_Media -0.154134 -0.075074 1.00000

## Visualizations

The following visualizations were created to illustrate the findings:  
  
**1. Distribution of Self-Esteem Ratings:**

**Description**: This histogram shows the distribution of self-esteem ratings among the survey respondents. The x-axis represents the self-esteem ratings, while the y-axis indicates the frequency of respondents who chose each rating.

**Key Findings**: The distribution is uniform, indicating a wide range of self-esteem levels among respondents. No rating stands out as significantly more common, suggesting diverse experiences and perceptions of self-esteem within the sample group.

**Visualization**:

A graph of a number of red bars

Description automatically generated with medium confidence

**2. Distribution of Time Spent on social media:**

**Description**: This histogram depicts the amount of time respondents spend on social media daily. The x-axis represents the number of hours spent on social media, and the y-axis shows the frequency of respondents for each time interval.

**Key Findings**: The histogram highlights how much time participants typically spend on social media, showing the range and common values.

**Visualization**:

A graph of different colored bars

Description automatically generated

**3. Self-Esteem Rating vs. Time Spending on social media:**

**Description**: The scatter plot visualizes the relationship between self-esteem ratings and time spent on social media. Each point represents a respondent's self-esteem rating and their corresponding time spent on social media.

**Key Findings**: The scatter plot helps identify any patterns or correlations between the two variables, although the correlation appears to be weak.

**Visualization**:

A diagram of a graph

Description automatically generated with medium confidence

**4. Average Self-Esteem Rating by Social Media Platform:**

**Description**: This bar chart compares the average self-esteem ratings for users of different social media platforms. The x-axis lists the social media platforms, while the y-axis shows the average self-esteem rating for users of each platform.

**Key Findings**: The chart reveals which social media platforms are associated with higher or lower self-esteem ratings among users.

**Visualization**:

A graph of blue rectangular bars

Description automatically generated with medium confidence

**5. Average Self-Esteem Rating by Gender:**

**Description**: The bar chart displays the average self-esteem ratings for different genders. The x-axis represents the gender categories, and the y-axis indicates the average self-esteem rating for each gender.

**Key Findings**: This chart helps to understand if there are any significant differences in self-esteem ratings between genders.

**Visualization**:

A graph with green bars

Description automatically generated

**6. Average Self-Esteem Rating by Feeling Pressured on Posting:**

**Description**: This bar chart examines the relationship between feeling pressured to post on social media and average self-esteem ratings. The x-axis represents the level of pressure felt, and the y-axis shows the average self-esteem rating.

**Key Findings**: The chart provides insights into how feeling pressured to post on social media might affect self-esteem.

**Visualization**:

A graph of a number of red bars

Description automatically generated with medium confidence

**7. Average Self-Esteem Rating by Taking Social Media Breaks:**

**Description**: This bar chart compares the average self-esteem ratings between respondents who take breaks from social media and those who do not. The x-axis represents the categories of taking breaks, and the y-axis indicates the average self-esteem rating.

**Key Findings**: The chart helps to understand the impact of taking breaks from social media on self-esteem.

**Visualization**:

A graph of a number of blue rectangular objects

Description automatically generated with medium confidence  
**8. Age Distribution of Survey Participants:**

**Description**: This histogram shows the distribution of ages among the survey participants. The x-axis represents the age groups, and the y-axis shows the frequency of respondents in each age group.

**Key Findings**: The age distribution provides context about the demographic of the survey participants.

**Visualization**:

**A graph of a number of people

Description automatically generated**

**9. Self-Esteem and Time Spending by Age Group:**

**Description**: This combined bar chart illustrates the average self-esteem ratings and average time spent on social media for different age groups. The x-axis represents the age groups, the left y-axis shows the average self-esteem rating, and the right y-axis indicates the average time spent on social media.

**Key Findings**: The chart provides insights into how self-esteem and social media usage vary across different age groups.

**Visualization**:

A graph with green and orange bars

Description automatically generated

**Summary and Recommendations:**

1. **Promote Healthy social media Habits**: Encouraging users, especially younger individuals, to engage in balanced social media usage can help mitigate negative impacts on self-esteem.
2. **Positive Content and Interactions**: Social media platforms should promote positive content and interactions, reducing comparison-driven behaviors that can harm self-esteem.
3. **Tailored Interventions**: Gender-specific and age-specific strategies can be developed to address the unique challenges faced by different demographic groups.
4. **Further Research**: Additional studies should investigate other factors influencing self-esteem, such as the type of content consumed, the quality of social interactions, and offline support systems.

# Conclusion

The analysis revealed several insights into the relationship between social media usage and self-esteem. While there were weak correlations between self-esteem ratings and time spent on social media, the visualizations provided a clearer picture of how different factors such as age, gender, and specific social media platforms may influence self-esteem. Further research could involve larger sample sizes and more detailed questions to explore these relationships more deeply.