

Kiss and Tell: A Statistical Analysis of First Kisses, IQ, and Gender

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Abstract

This project investigates the relationships among IQ, kiss count, age of first kiss, and gender using a dataset of young adults. Our analysis found a significant negative correlation between kiss count and age of first kiss ($r = -0.231$, $p = 0.001$), indicating that individuals who kissed earlier tend to have kissed more often. Additionally, t-test results showed a statistically significant difference in age of first kiss between genders ($p = 0.0059$), with males experiencing their first kiss earlier than females on average. However, no significant correlations were found between IQ and either kiss count or age of first kiss. Visualizations were created to clearly demonstrate these findings.

1 Introduction

Romantic experiences are often viewed as critical milestones in adolescent development. Among these, the age of a person's first kiss is both a culturally significant and emotionally memorable event. This study aims to explore how personal attributes like IQ and gender may relate to kiss-related behaviors, specifically kiss count and age of first kiss.

The dataset used in this project was provided by the course instructor via Microsoft Teams and is titled `DATA_Kiss_count_gender_and_IQ.xlsx`. It contains 200 anonymized records of young individuals, each with four key variables:

- **Gender** (male or female)
- **IQ** score (ranging approximately from 85 to 140)
- **Kiss Count**, indicating the number of kisses a person has had
- **Age of First Kiss**, representing when the person first experienced a romantic kiss

*You can submit this assignment as a PDF file with a link to your Overleaf project like so: <https://www.overleaf.com/project/682e0e312d683d65fc5680b6>. Put the ‘\’ before the # character, otherwise it won't show up! Make 100% sure the whole link shows up the PDF file. To get the link to project, just click the share menu at the top of the page.

The dataset is assumed to be synthetic or curated for academic analysis. It offers a simplified but controlled environment for practicing statistical reasoning and scientific reporting.

By applying correlation analysis, t-tests, and graphical visualizations, this study aims to uncover trends among the variables. We hypothesize that gender may influence the age of first kiss, and that kiss count may be inversely related to that age.

Table 1: Sample of Raw Dataset (Male Participants)

Name	Gender	IQ	Kiss Count	Age of First Kiss
James	male	134	18	15
Michael	male	139	9	22
Robert	male	107	6	18
John	male	131	17	18
David	male	117	11	18
William	male	89	7	22
Richard	male	112	16	14
Joseph	male	110	14	18
Thomas	male	130	11	17
Christopher	male	134	11	21

2 Data Analysis

This section presents the results of statistical analyses conducted on the dataset to explore the relationships among gender, IQ, kiss count, and age of first kiss. Two types of analyses were performed: Pearson correlation and independent samples t-tests.

2.1 Correlation Analysis

Pearson correlation coefficients were calculated to measure the strength and direction of linear associations between pairs of continuous variables. As shown in the table below, most correlations were weak and not statistically significant.

Table 2: Pearson Correlation Results

Comparison	<i>r</i> -value	<i>p</i> -value
IQ vs Kiss Count	0.111	0.118
IQ vs Age of First Kiss	-0.042	0.556
Kiss Count vs Age of First Kiss	-0.231	0.001

Only the correlation between kiss count and age of first kiss reached statistical significance ($p = 0.001$). This moderate negative correlation suggests that individuals who kissed more often tended to have had their first kiss at a younger age.

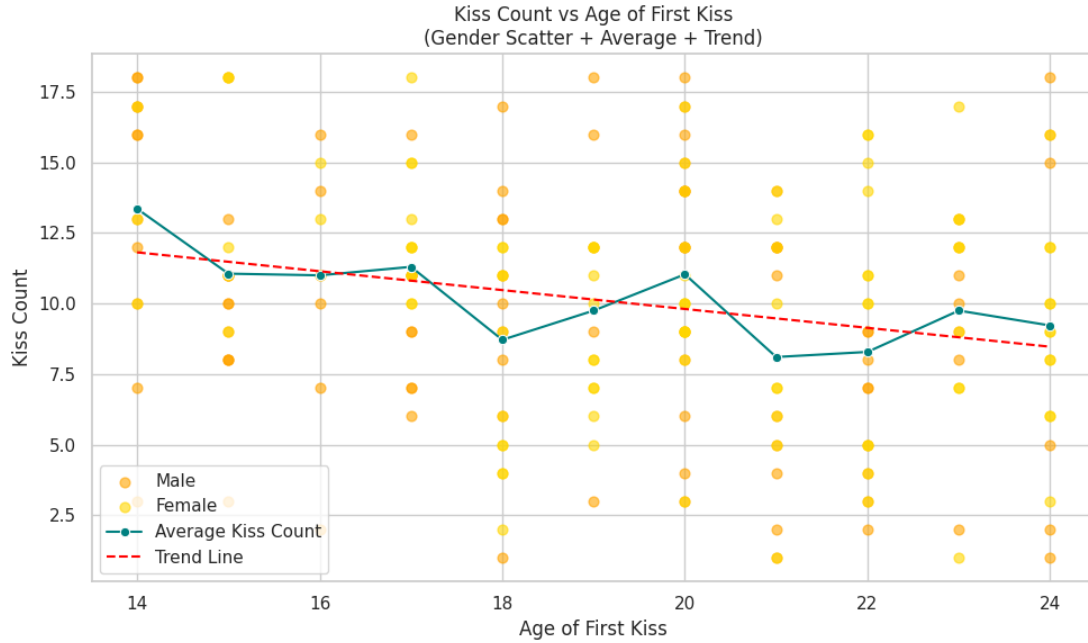


Figure 1: Relationship between age of first kiss and kiss count. The red trend line indicates a significant negative correlation; individuals who kissed more started earlier.

2.2 T-tests for Gender Differences

Independent samples t-tests were used to determine whether there were statistically significant differences between males and females in kiss count and age of first kiss. The results are summarized below.

Comparison	<i>t</i> -value	<i>p</i> -value
Gender vs Kiss Count	-0.049	0.961
Gender vs Age of First Kiss	-2.783	0.006

Only one gender-related difference was statistically significant: males reported a significantly earlier age of first kiss than females ($p = 0.006$). No significant difference was found in kiss count between genders.

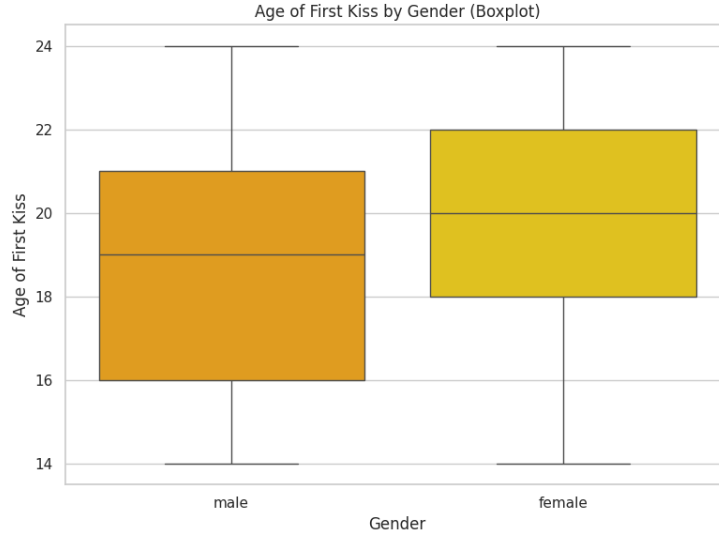


Figure 2: Boxplot comparing age of first kiss by gender. Males show a lower median, indicating they tend to kiss earlier than females.

2.3 Summary of Findings

Table 4: Summary of All Statistical Results

Comparison	$r/t\text{-value}$	$p\text{-value}$
IQ vs Kiss Count	0.111	0.118
IQ vs Age of First Kiss	-0.042	0.556
Kiss Count vs Age of First Kiss	-0.231	0.001
Gender vs Kiss Count (t-test)	-0.049	0.961
Gender vs Age of First Kiss (t-test)	-2.783	0.006

Only two comparisons showed statistically significant results ($p < 0.05$):

- A negative correlation between kiss count and age of first kiss: those who kissed more tended to have started earlier.
- A gender difference in age of first kiss: males experienced their first kiss at a significantly younger age than females.

All other comparisons were not statistically significant.

3 Conclusion

This study explored the relationships between IQ, gender, kiss count, and age of first kiss using a dataset of 200 anonymized individuals. Through correlation and t-test analyses, we identified two statistically significant findings:

- A moderate negative correlation between kiss count and age of first kiss, suggesting that individuals who began kissing earlier tend to have kissed more.
- A significant gender difference in the age of first kiss, with males generally reporting earlier experiences than females.

No statistically significant relationships were found between IQ and either kiss count or age of first kiss. Additionally, gender did not significantly influence kiss count.

These findings highlight the potential impact of early romantic experiences and gender norms on adolescent development. While the dataset is likely synthetic and simplified for educational purposes, it effectively illustrates how basic statistical tools can reveal meaningful patterns in behavioral data.

Future studies with real-world or more complex datasets could further investigate additional psychological, social, or cultural factors that influence romantic behaviors.

References