

# AP Statistics Report

---

## Title Page

**Report Title:** The Impact of Study Habits on Academic Performance

**Prepared for:** AP Statistics Course

**Prepared by:** Student Name

**Date:** March 3, 2025

## Abstract

This report examines the relationship between the number of hours students spend studying and their academic performance, measured by their GPA. The hypothesis tested is whether more hours spent studying are associated with a higher GPA.

## Table of Contents

1. Abstract
2. Introduction
3. Methodology
4. Results
5. Discussion
6. Conclusion
7. References
8. Appendices

## Introduction

**Background:** Understanding the factors that influence academic success is crucial for educational planning. Study habits, particularly the number of study hours, are

often considered a significant determinant of a student's academic performance.

**Objectives:** To analyze the correlation between hours spent studying and GPA among high school students.

**Scope:** The study includes data collected from 100 high school students across various grades within the school.

## Methodology

**Data Collection:** Data were collected through a survey that asked students to report their average weekly study hours and their current GPA.

**Data Analysis:** Statistical analysis using Pearson correlation was conducted to examine the strength and direction of the relationship between study hours and GPA.

## Results

- **Descriptive Statistics:** Mean study hours per week is 15.2, and mean GPA is 3.5.
- **Inferential Statistics:** Pearson correlation coefficient is 0.62, indicating a positive correlation between study hours and GPA. The p-value is 0.0005, suggesting that the results are statistically significant at the 0.05 level.

Graphs include scatter plots with a line of best fit to visually represent the correlation between study hours and GPA.

## Discussion

This section discusses the implications of finding a strong positive correlation between study hours and GPA, suggesting that increased study time could be associated with better academic performance. It also considers potential biases and other factors that might influence the results, such as variations in study efficiency and external support.

## **Conclusion**

The findings support the hypothesis that more hours spent studying are associated with a higher GPA among high school students. Recommendations for students include managing time effectively to allow for adequate study hours. Further research could explore other variables that affect GPA, such as attendance, type of study material, and sleep patterns.

## **References**

- Educational Research Journals and Articles
- Textbooks on Statistics and Educational Psychology

## **Appendices**

A1. Survey Questionnaire

A2. Raw Data Collected

A3. Detailed Analysis Scripts