

ROLE OF PARENTAL INVOLVEMENT IN STUDENT SUCCES

Johana RIVAS



OVERVIEW

This project examines the critical role that parental involvement plays in a student's academic success. It addresses how different levels of parental support and education impact academic performance.

By analyzing the relationship between parental support, parental education, and student outcomes, the project aims to provide actionable insights on how educational institutions and parents can better collaborate to improve student achievement.

How parental support and parental education level affect student's academic performance?



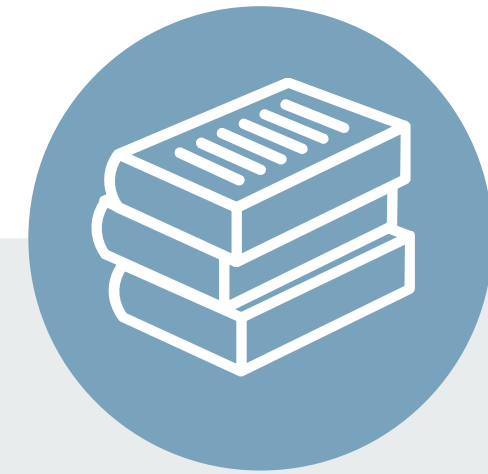
Effect of parental support on student success

The investigation assesses whether higher levels of parental support lead to better student success, specifically measured by higher GPA and A/B grade achievement.



Failure rate and parental education

The examination focuses on whether parental education level affects student failure rates (grade classe = 4). It seeks to determine if higher parental education correlates with lower failure rates.



Combine effect of parental support and education on GPA

The investigation evaluates whether the combination of high parental support and education leads to better GPA compared to lower levels.

DATA OVERVIEW

Data Wrangling

1

- First exploration
- Cleaning missing values

EDA

- Dataset exploration
- Understand demographic distribution

2

3

KPIs

- Performance metrics to assess student outcomes

Hypothesis testing & analysis

- The tests are conducted to determine the effect on student succes and failure

4

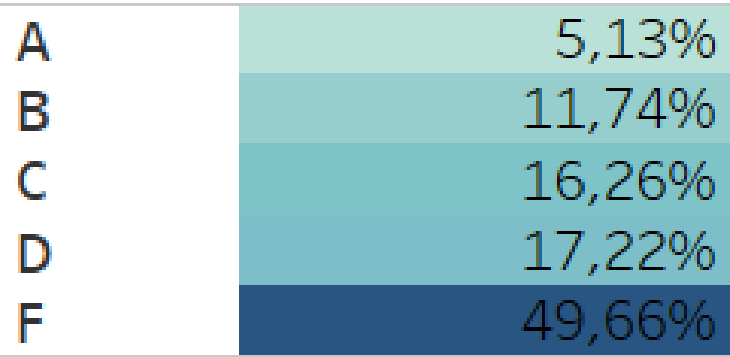
EDA

This section provides a visual exploration of the dataset, revealing key trends and insights that enhance our understanding of the factor influencing educational success

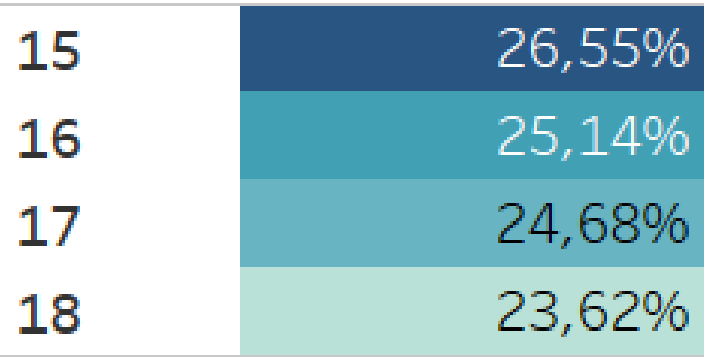
Gender



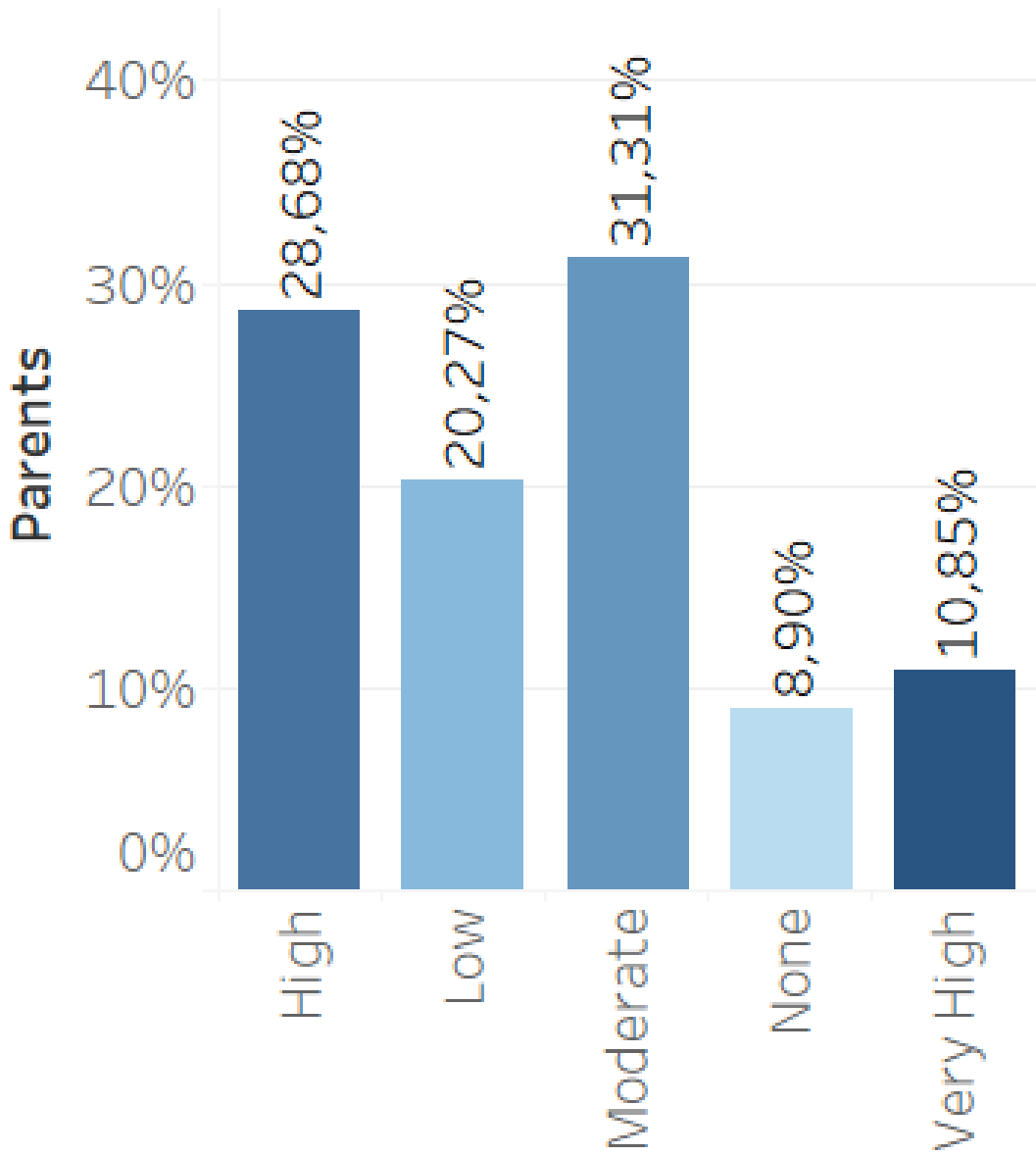
Grade Class



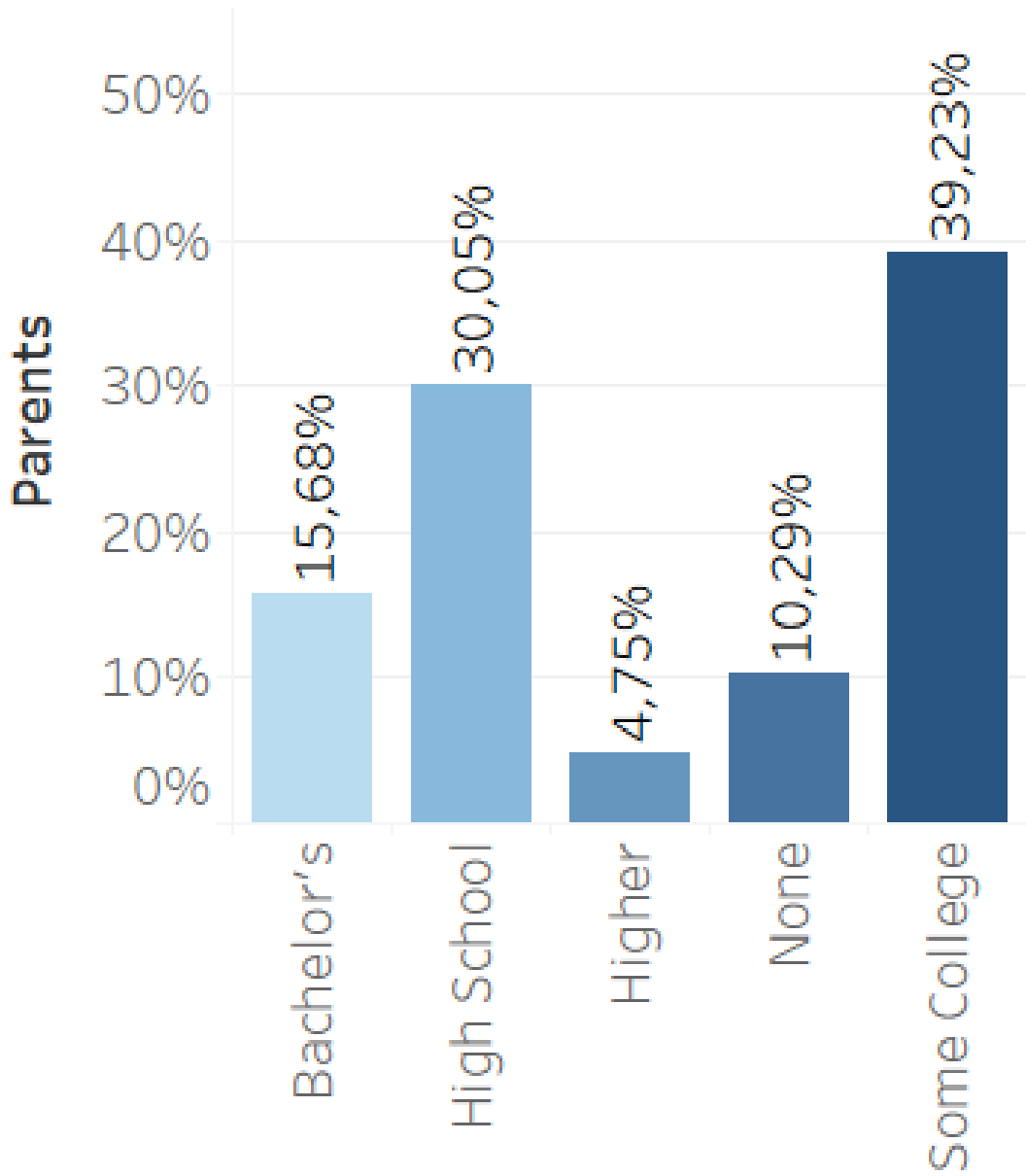
Age



Parental Support

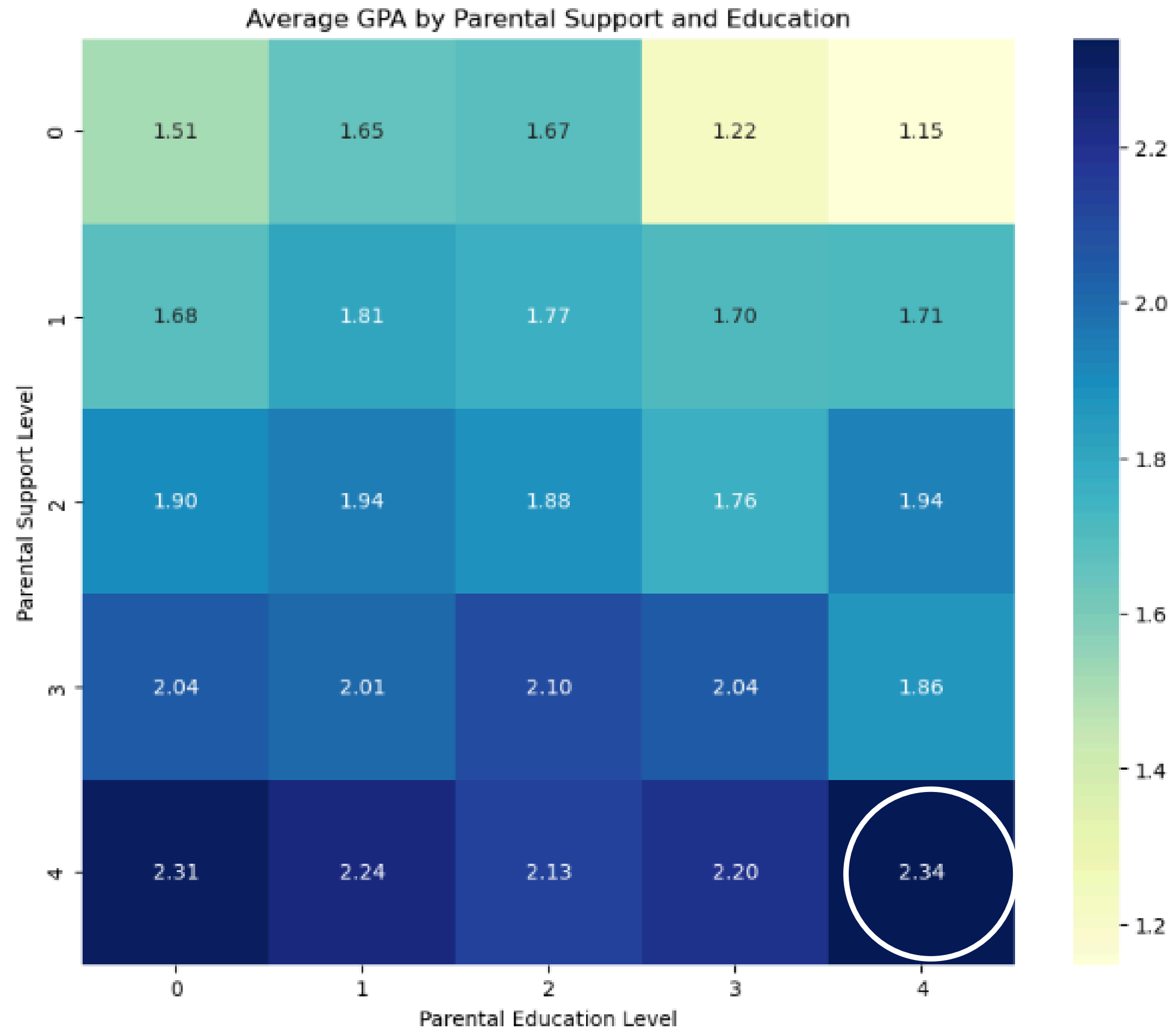


Parental Education Level



EDA

Impact of
combined
parental
support and
education
level on GPA



KPIS

In essence, the KPIS analysis offers a comprehensive understanding of the impact of parental engagement. These indicators illuminate how effectively these factors contribute to enhancing student performance.

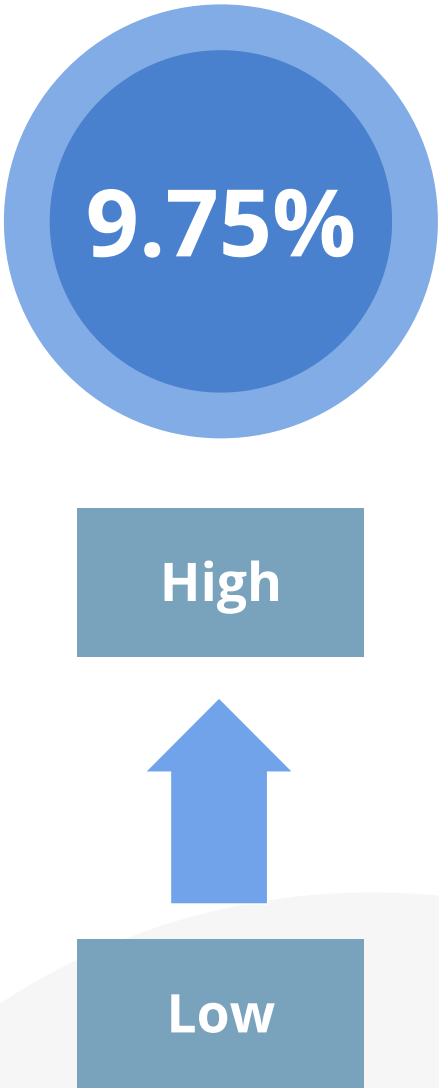
This KPI highlights the percentage of students with an F grade, segmented by their parents' education level

Parental Education Level	Failure Rate(%)
None	51.03
High School	48.08
Somme College	50.54
Bachelor's	52.04
Higher	61.67

This indicator shows the percentage of students achieving A or B grades, based on their level of parental support

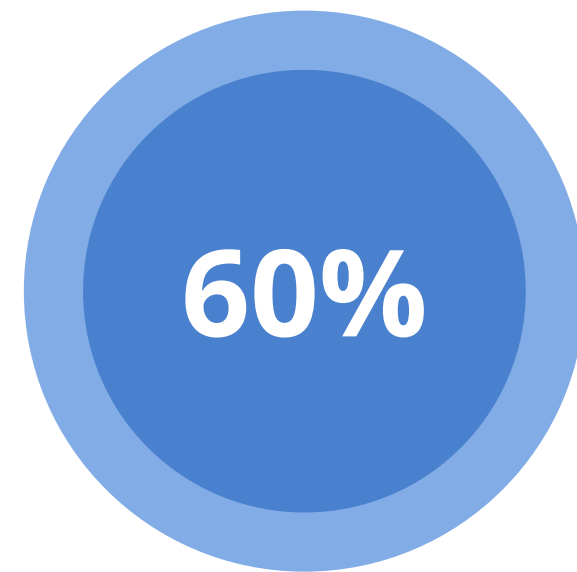
Parental Support	Succes Rate(%)
None	6.13
Low	10.84
Moderate	15.27
High	19.94
Very High	22.83

The GPA improvement margin demonstrates the performance increase between students with high versus low parental support



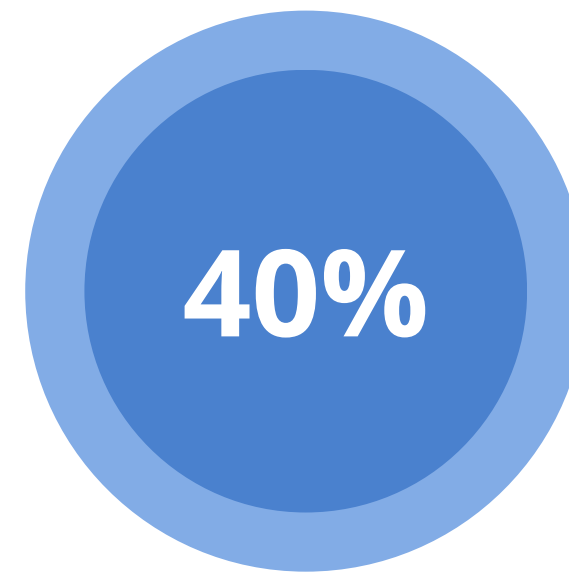
HYPOTESIS TESTING

Distribution Group Control and Test



Control -1441




Low parental
support and
education



Test - 951

High parental
support and
education

HYPOTESIS TESTING

H0	P-value	Stat	Insight	
Parental support level not affect student succes (A/B grades)	4.94e ★ ★ ★	Z- Test -5.454		Parental support has a significant effect on studen succes.
Parental education has no impact on GPA	0.061	Z- Test -1.873		Parental education level doesn't have a statistically significant impact on GPA
Impact of parental support and parental education not affect GPA	0.001 ★ ★	T-Test -3.299		This combination of both hig parental support and education levels has a significant positive impact on GPA

CONCLUSION



The findings underline the critical role of parental involvement in student achievement.

Education institutions should develop strategies to enhance parental engagement.

Programs that foster communication between parents and educators can bridge the gap between home and school, creating a supportive environment that promotes students success.

THANK YOU

FOR YOUR ATTENTION

Johana RIVAS

