

DATA ANALYSIS REPORT FOR VINE COMPREHENSIVE HIGH SCHOOL

This report provides a comprehensive analysis of student performance, extracurricular involvement, and socio-economic factors impacting academic success at **Vine Comprehensive High School**. By leveraging the school's data on academic scores, attendance, technology access, and survey feedback, this analysis aims to highlight key trends and provide actionable insights for improving student outcomes.

1. School Overview

This section provides an overall understanding of the school's demographic and academic distribution.

- **Total Students:** 600 students across 12 classes, with an average class size of 50 students.
- **Teacher-Student Ratio:** 1:10.
- **Average Study Time:** 4.13 hours.
- **Average Extracurricular Activity Time:** 2 hours.
- **Teacher Qualifications:** 85% of teachers hold a Bachelor's degree, while 10% and 5% hold Master's and Ph.D. degrees, respectively.
- **Class Distribution:** The classes are evenly split between different junior and senior levels, with each class containing 50 students.
- **Parental Support and Technology Access:** Parental support and technology access show a varying degree of involvement and influence on student success. For instance, 294 students reported low parental support, and 497 students do not have access to computers.

2. Student Performance Overview

This section highlights key metrics in terms of academic performance across various grades and subjects.

- **Average Score per Subject:** The school's average performance across various subjects shows significant variations, with subjects like Economics and Geography seeing higher average grades compared to others like Agricultural Science and Biology.
- **Grade Distribution:** The majority of students scored in the B grade range, with 932 students in that category. However, there were 599 students who scored an A grade and 2,000 students scoring an F grade.
- **Pass vs Failure Rate:** The pass/failure ratio across classes shows that certain class levels may require more academic support to reduce the failure rate. For example, students in JS1 and JS2 classes tend to perform better than those in SS3.

3. Extracurricular Activities

Extracurricular activities play a crucial role in shaping the overall performance of students.

- **Impact of Extracurricular Time on Grades:** There is a clear correlation between the time spent on extracurricular activities and academic performance. Students who spent around 24 hours in extracurricular activities on average scored significantly higher than the school average of 2 hours.

4. Leaderboard and Performance

The Leaderboard tracks top-performing students based on cumulative scores across all subjects and gives a clear representation of each student's academic standing within their respective class. The following observations were noted:

- **Top Performers:** The leaderboard highlights the best performers, showing students' total scores and ranks across the school. For example, Abdullahi Bashir, aged 10, ranked 28th in his class with a total term score of 534.
- **Student Performance Profile:** Individual student profiles (such as Abdullahi Bashir) display key performance metrics like attendance, total score, and extracurricular hours. There's also a projected probability of passing future exams based on their academic performance and attendance trends. Abdullahi Bashir, for instance, has a 60% probability of passing future exams and is considered likely to struggle based on current performance.

5. Feedback Page (Survey Analysis)

The feedback page provides an analysis of student survey data, capturing insights about student stress levels, parental support, access to learning resources, and the impact of extracurricular activities.

- **Impact of Stress on Anxiety:** The analysis shows that students with higher stress levels tend to report higher anxiety during exams. For instance, students with high stress levels accounted for 140 cases of high anxiety.
- **Teacher Engagement and Motivation:** High teacher engagement has a positive impact on student motivation levels. Students who received high engagement from teachers showed higher motivation to succeed academically.

Recommendations:

Based on the analysis, here are a few recommendations:

1. **Improvement in Technology Access:** Providing better access to computers and the internet for students can bridge the technology gap and lead to better academic performance, especially in subjects that require research or interactive tools.
2. **Enhancing Extracurricular Engagement:** Encourage more students to engage in extracurricular activities as there is evidence suggesting that it has a positive impact on academic performance.
3. **Support Systems for Struggling Students:** Given the high failure rates in certain classes (e.g., SS3), targeted support such as tutoring, mentorship, or stress management programs should be implemented.
4. **Improving Parent Engagement:** There is a direct correlation between parental support and student success. Strengthening school-parent partnerships, perhaps through workshops or regular progress updates, could further improve student performance.