Education Performance Analysis

**Counts:**

* There are 2392 total students
* The grade “F” has the greatest number of students with 1211 students meanwhile the grade “A” has the least.
* The Caucasian ethnicity has the greatest number of students with 1207 students, and the average being around 50.46% of all students, which could be due to the fact of the school being located in Europe.

**GPA analysis:**

* Students whose parents have high school or college education have the highest average GPAs with 1.948 and 1.300 respectively. In contrast, students whose parents have bachelor’s and higher educations have the lowest average GPAs with 1.81 and 1.82 respectively.
* When it comes to students who get support from their parents, those who had no support had an average GPA of 1.54. In contrast, whose who had very high support had the highest average GPA of 2.19.
* When it comes to genders, it was a close call but Males scored higher GPAs, the average being 1.91, while Females had an average of 1.89.
* For students who had Very Few absences scored the highest GPAs with the average of 3.16, on the other hand the lowest GPA average was 0.93 and was scored by students how had Very Many absences.
* This analysis concludes that Absences, Parent Education and support play a huge role on the performance of the student.

**Extracurricular analysis:**

* Students who took tutoring lessons scored a higher GPA the average being 2.1 while students who did not had the average GPA of 1.81.
* Students who participated in extracurricular activities scored higher GPAs the average being 2.01, while student who did not participate had an average of 1.83.
* Students who play sports scored higher GPAs the average being 1.89 while students who do not have an average of 1.87.
* For students who play music their average GPA was higher scoring 2.04 while students who don’t have an average of 1.87.
* Finally for student volunteering it was a very close averages being for those who volunteered 1.91 and for those who did not 1.90.

**Education Performance Analysis**

**Student Counts**

* Total Students: 2,392.
* Grades: The largest group of students received an F (1,211 students), while the smallest group achieved an A.
* Ethnicity: Caucasian students represent the largest demographic (1,207 students, 50.46%), likely influenced by the school's location in Europe.

**GPA Analysis**

* **Parental Education:**
  + Students whose parents completed high school or college had the highest average GPAs of 1.95 and 1.30, respectively.
  + Interestingly, students whose parents held bachelor’s degrees or higher had slightly lower average GPAs of 1.81 and 1.82, suggesting a potential inverse correlation between higher parental education and student GPA.
* **Parental Support:**
  + Very high parental support was associated with the highest average GPA of 2.19.
  + Students with no parental support had the lowest average GPA of 1.54.
* **Gender:**
  + Male students slightly outperformed females, with an average GPA of 1.91 compared to 1.89 for females.
* **Absences:**
  + **Attendance strongly influenced performance:**
    - Students with very few absences had the highest average GPA of 3.16.
    - Students with very many absences had the lowest average GPA of 0.93.
  + **Key Insight:** Attendance is a critical factor in student success.

**Extracurricular Activities**

* **Tutoring:**
  + Students who received tutoring achieved a higher average GPA of 2.10, compared to 1.81 for those who didn’t.
* **Participation in Activities:**
  + Students involved in extracurricular activities had an average GPA of 2.01, outperforming those who didn’t (1.83).
* **Sports:**
  + Students who played sports had a slightly higher average GPA of 1.89, compared to 1.87 for those who didn’t.
* **Music:**
  + Students who played musical instruments achieved an average GPA of 2.04, outperforming those who didn’t (1.87).
* **Volunteering:**
  + The difference here was minimal: students who volunteered had an average GPA of 1.91, compared to 1.90 for those who didn’t.

**Key Takeaways:**

1. Absences have the most significant impact on GPA, with very few absences linked to much higher performance.
2. Parental support plays a crucial role, with very high support resulting in better GPAs.
3. Extracurricular activities, especially tutoring and music, show a positive impact on academic performance.