Tutor vs Non-Tutor Data Analytics Report

DATA ANALYSIS SUMMARY REPORT (FOCUS ON TUTOR STATUS)
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OBJECTIVES:
- Examine the effect of tutoring on student performance.
- Predict student outcomes using regression analysis.
- Provide actionable recommendations based on findings.

KEY FINDINGS:
1. Dataset size: 50 students.
2. Mean Final Score: Tutor = 88.15 | Non-Tutor = 75.63
3. Median Final Score: Tutor = 89.50 | Non-Tutor = 76.00
4. Standard Deviation: Tutor = 9.42 | Non-Tutor = 11.05
5. Predictive Models:
   - Tutor Students: Final_Score = 38.95 + (2.82*Study_Hours) + (0.34*Attendance), R^2 = 0.9812
   - Non-Tutor Students: Final_Score = 43.88 + (3.24*Study_Hours) + (0.17*Attendance), R^2 = 0.9917
   - Overall: Final_Score = 22.54 + (2.17*Study_Hours) + (0.53*Attendance), R^2 = 0.9172

RECOMMENDATIONS:
- Encourage non-tutor students to participate in tutoring programs.
- Maintain weekly study hours above group mean (~8-10 hours) for all students.
- Keep attendance above 85% to positively influence scores.
- Use the dashboard to identify at-risk students early.

CONCLUSION:
Tutoring significantly improves student performance, as tutor students show higher mean and median scores.
The predictive models indicate that tutoring, study hours, and attendance are strong predictors of final performance.
Non-tutor students lag behind, highlighting the need for interventions such as tutoring programs and monitoring of study habits.